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BRIDGEWATER GROUP, INC.

Groundwater Monitoring Plan
Burgard Industrial Park

TO: Alicia Voss/DEQ

COPY: Mat Cusma/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: December 20, 2002

This memorandum presents the groundwater monitoring plan for the Burgard Industrial Park in Portland, Oregon. Seven groundwater monitoring wells were installed for the Phase I Remedial Investigation (RI) at the site. Chemical analysis of groundwater samples collected in early 2002 noted concentrations of organic compounds less than surface water quality criteria and concentrations of metals similar to regional background levels. The results of the Phase I RI are presented in a May 16, 2002, *Phase I Remedial Investigation Report*. In a letter dated October 17, 2002 and during a meeting on November 14, 2002, the Oregon Department of Environmental Quality (DEQ) requested that Schnitzer perform periodic groundwater monitoring to confirm the groundwater conditions noted in the Phase I RI sampling.

The purpose of the groundwater monitoring program is to assess:

- Any seasonal trends in the relative groundwater elevations at the site and;
- Confirm the lack of concentrations of hazardous substances at concentrations greater than surface water quality criteria or regional background concentrations in wells near the Willamette River.

Following from these stated goals, the groundwater monitoring program will consist of two elements:

- Groundwater elevation measurements
- Groundwater sampling and analysis

Each of these elements is discussed below.

Groundwater Elevation Measurements

Groundwater elevations will be determined in the seven groundwater monitoring wells installed for the Phase I RI to assess any seasonal trends in the relative groundwater elevations at the site. The depth to the groundwater in the wells will be measured using an electronic meter to a precision of 0.01 foot. The groundwater depth measurements will be performed in a shortest period as practicable to reduce the potential for rapidly changing river levels to affect the relative groundwater depths between wells measured at the start of the sampling round and those measured at the end of the sampling round. The groundwater elevations will be determined based on the surveyed elevations of the wells as presented in

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the RI report. The Willamette River level in the Portland Harbor at the start and end of the sampling event will be noted from the US Army Corps of Engineers internet web site.

The groundwater elevations will be determined quarterly (every three months) starting in January 2003. This frequency will capture the typical wet weather/dry weather and high river/low river cycles.

Groundwater Sampling and Analysis

Groundwater samples will be collected from selected groundwater monitoring wells to confirm the lack of concentrations of hazardous substances at concentrations greater than surface water quality criteria or regional background concentrations in wells near the Willamette River. The specific wells that will be sampled and the analytes included in the laboratory analysis are based on the results of the RI groundwater sampling and analysis. Table 1 presents the wells to be sampled, the analysis to be performed, and the basis for their selection.

TABLE 1
Groundwater Sampling and Analysis Program
Burgard Industrial Park

Monitoring Well	Analytes	Basis - Phase I RI Results
MW-1	VOCs	VOC concentrations greater than surface water quality criteria.
	Dissolved As, Cr	Total arsenic, chromium concentrations greater than water quality criteria in nearby wells.
MW-2	VOCs	In pathway from MW-1 to Willamette River. (No VOCs were detected at concentrations greater than surface water quality criteria in MW-2 during Phase I RI sampling.)
	Dissolved As, Cr	Total arsenic, chromium concentrations greater than water quality criteria.
MW-3	Dissolved As, Cr	Total arsenic, chromium concentrations greater than water quality criteria.
MW-4	Dissolved As, Cr	Total arsenic, chromium concentrations greater than water quality criteria.
MW-5	Dissolved Cr	Total chromium concentrations greater than water quality criteria.

The groundwater samples will be collected twice per year. Once during typical high groundwater/high river levels (March or April) and once during typical low groundwater/low river level (September or October). The groundwater samples will be collected using the same procedures and equipment, including field parameter measurements, used during the Phase I RI. The laboratory analysis methods will be the same as for the Phase I RI.

Reporting and Assessment of Groundwater Monitoring Program

A brief letter report will be prepared after each groundwater sampling round and results are received from the analytical laboratory (i.e. twice per year). Results from the two rounds of

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groundwater level measurements performed in the report period will be included in the report.

A report will be prepared after one year of groundwater monitoring presenting an assessment of the groundwater monitoring results and the appropriateness of additional groundwater monitoring. Results of the one year of groundwater monitoring will be assessed for the following:

- Groundwater flow directions and gradients consistent with the Phase I RI results.
- Contaminant concentrations in the two sampling rounds consistent with the concentrations measured in the Phase I RI.

If these two conditions are demonstrated by the one year of groundwater monitoring, the groundwater monitoring will be discontinued.

Please call if you have any questions.

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NCA Sample Container & Shipment Log

Request Date: 11/11 **Date Needed:** ~~11/12~~ 11/11 or 11/12 **Shipping Info**

Client Name: Matt Kirsma **Lab Contact:** Kim **NCA Courier:** X

Company: Schnitzer Steel **Outside Courier:** _____

Address: N Burgard **Fed-Ex:** _____

UPS: _____

Phone: _____ Cell/Site Phone: _____ **Will Call:** _____

Fax: _____

Comments/Instructions: (1) 2oz (1) 4oz (1) 8oz (4) 16oz (1) 32oz

D2203210 G2241010 F2233050 E1310010 J1241021

Sampling Instructions: _____ Ice: X COCs: _____ Coolers: X Trip Blank: _____

Packages

1200Z Storm Water: _____ COLS Storm Water: _____ Other: _____

Water Samples

Container/Preservative	1 Liter	500ml	250ml	VOA	Other	Analysis/Comments
Plastic / None						
Plastic / HNO3 (UN2031/C8)						
Plastic / H2SO4 (UN2796/C8)						
Plastic / NaOH (UN1823/C8)						
Glass/ None						
Glass / HCl (UN1789/C8)						
Glass / H2SO4 (UN2796/C8)						
Colilert / Powder						
Other						

Soil/Other Samples

Container/Preservative	32oz	16oz	8oz	4oz	2oz	Analysis/Comments
Wide Mouth Teflon						
Wide Mouth w/ Septa						
Wide w/ Septa / MeOH (UN1230/C3)						
Wipe (Hexane (UN1208/C3) or DI?)						
Other						

This Section For Packing Use Only

Custody Seals? _____ Packing Instructions? _____ Temp Blank? _____ **Prepared By:** 11/11/02

Date & Initial

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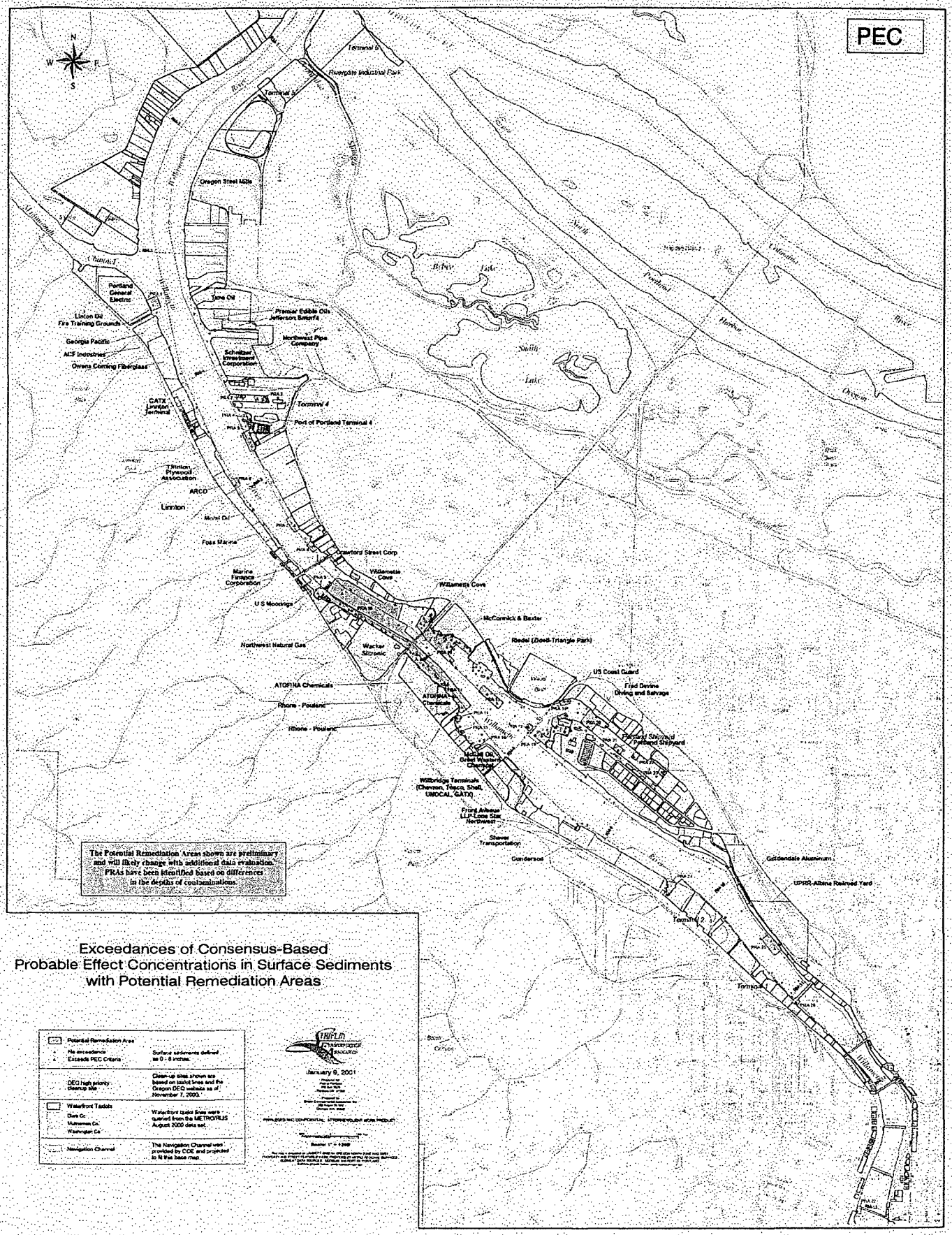

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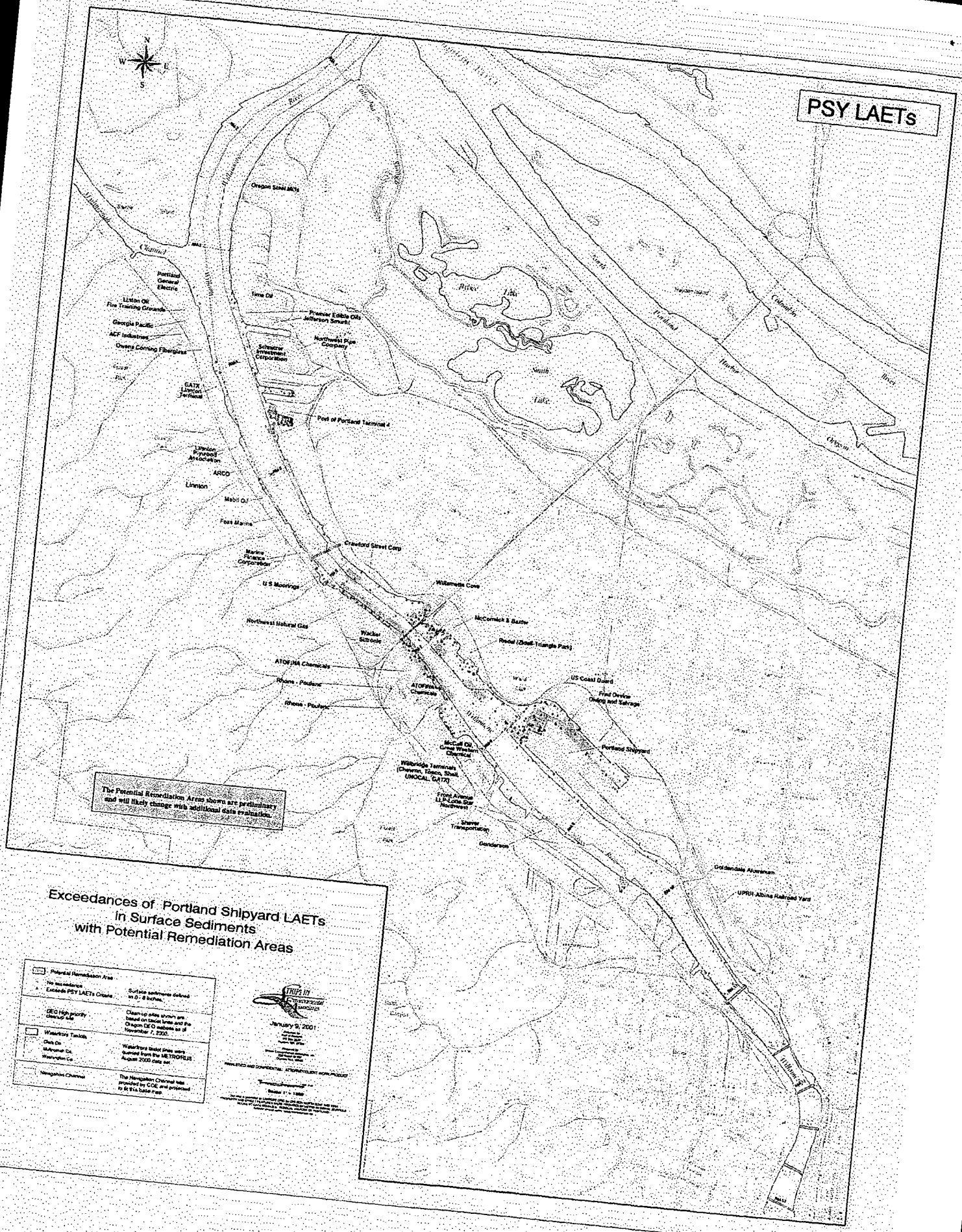

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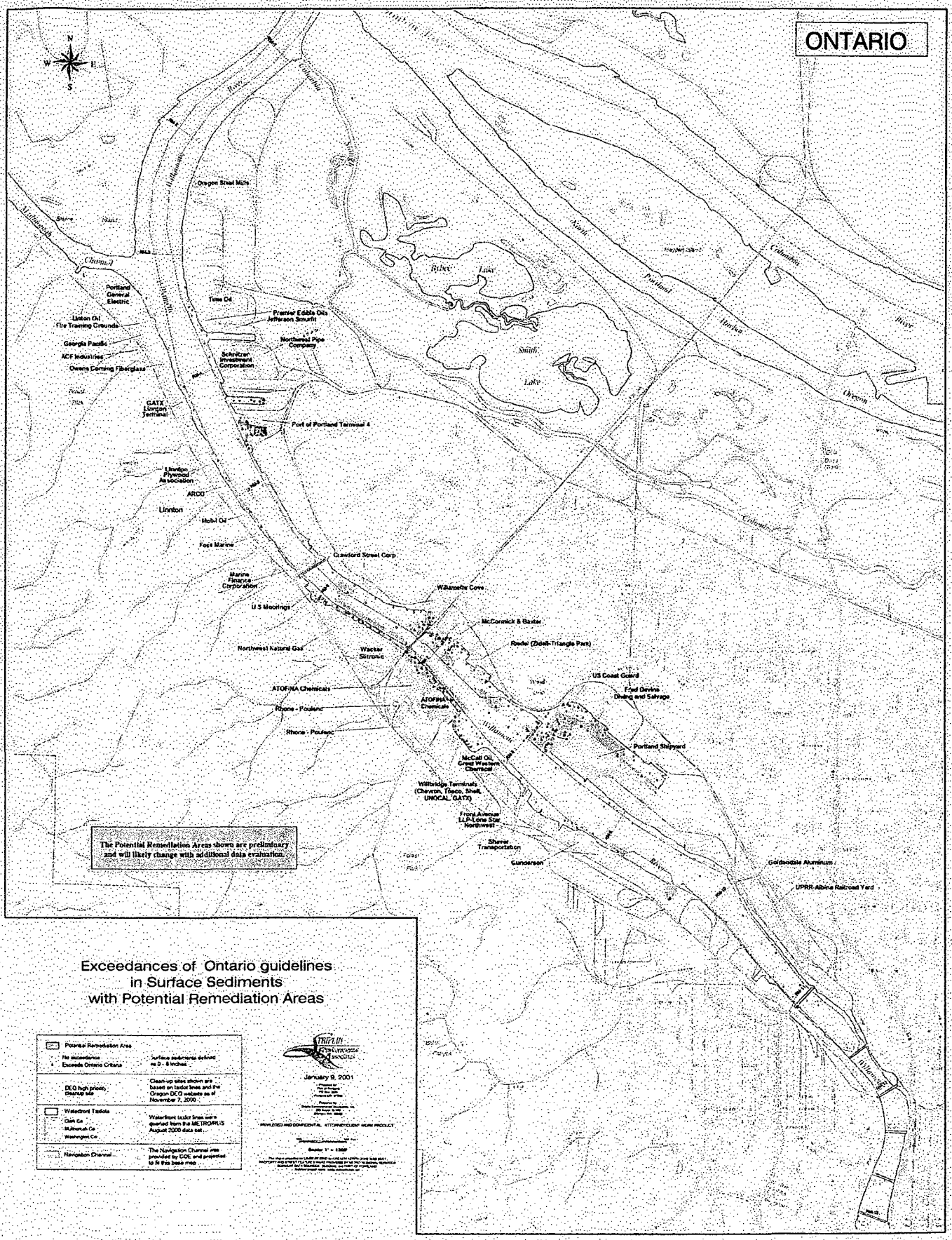

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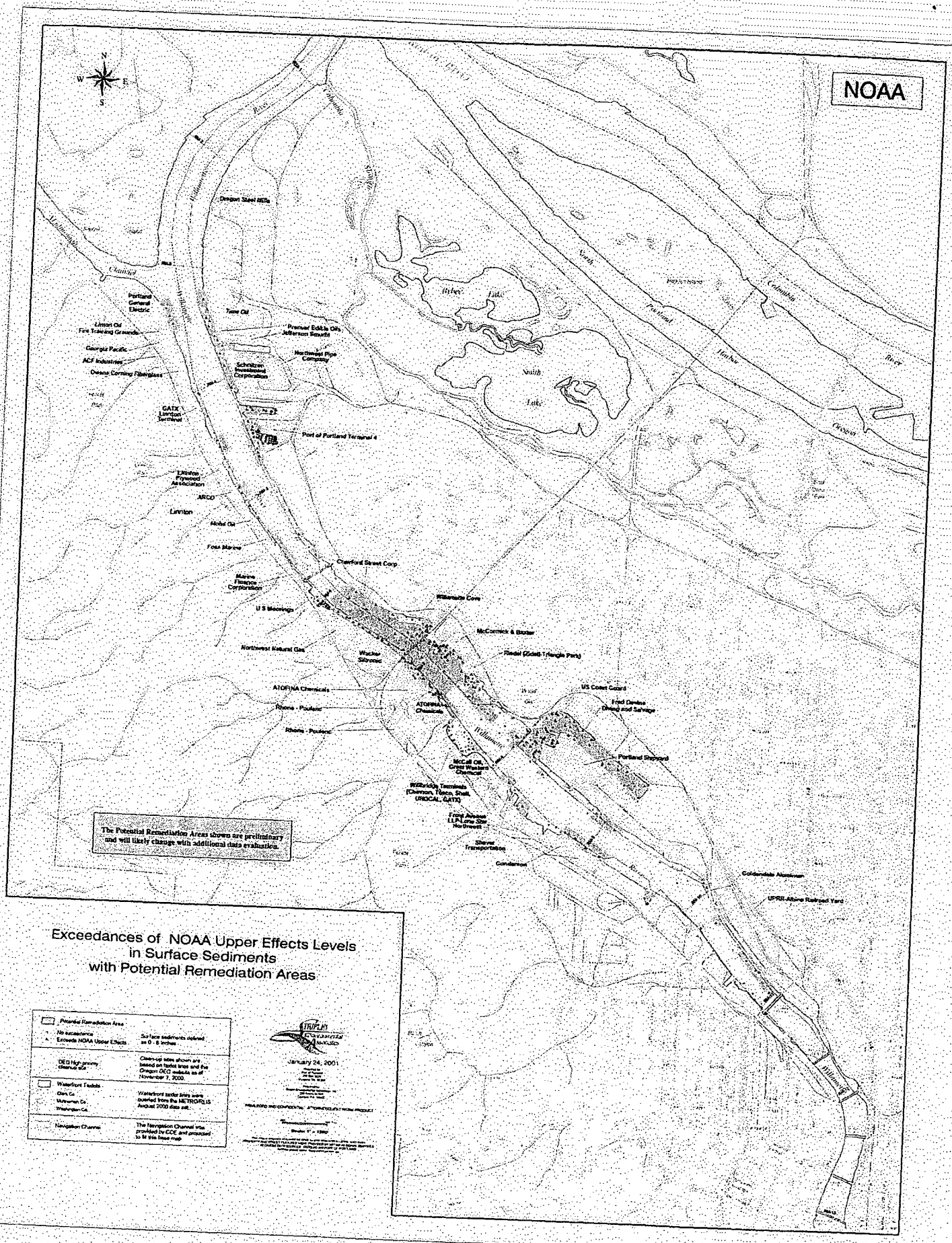

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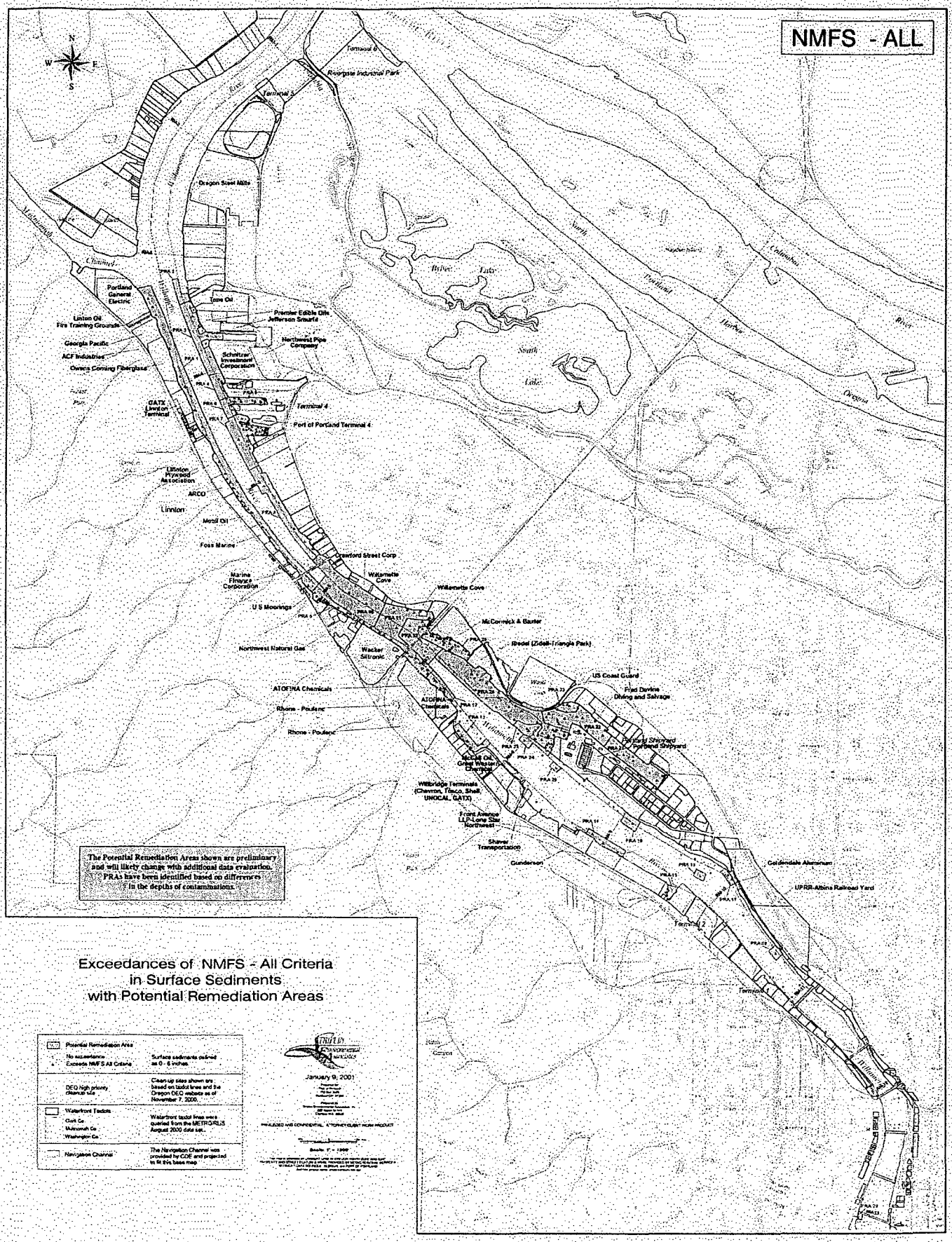

Exceedances of NMFS - All Criteria in Surface Sediments with Potential Remediation Areas

Potential Remediation Area	
No exceedance Exceeds NMFS All Criteria	Surface sediments defined as 0 - 6 inches
DEQ high priority cleanup site	Clean-up sites shown are based on tax lot lines and the Oregon DEQ website as of November 7, 2000.
Waterfront Tax lots Clark Co. Multnomah Co. Washington Co.	Waterfront tax lot lines were queried from the METRO/RLIS August 2000 data set.
Navigation Channel	The Navigation Channel was provided by COE and projected to fit this base map.

TRIFLUX Environmental Services

January 9, 2001

Prepared for
Port of Portland
Ms. Kathy Taylor
Project Manager

Prepared by
Tetra Tech, Inc.
Ms. Kathy Taylor
Project Manager

PRIVILEGED AND CONFIDENTIAL - ATTORNEY CLIENT WORK PRODUCT

Scale: 1" = 1000'

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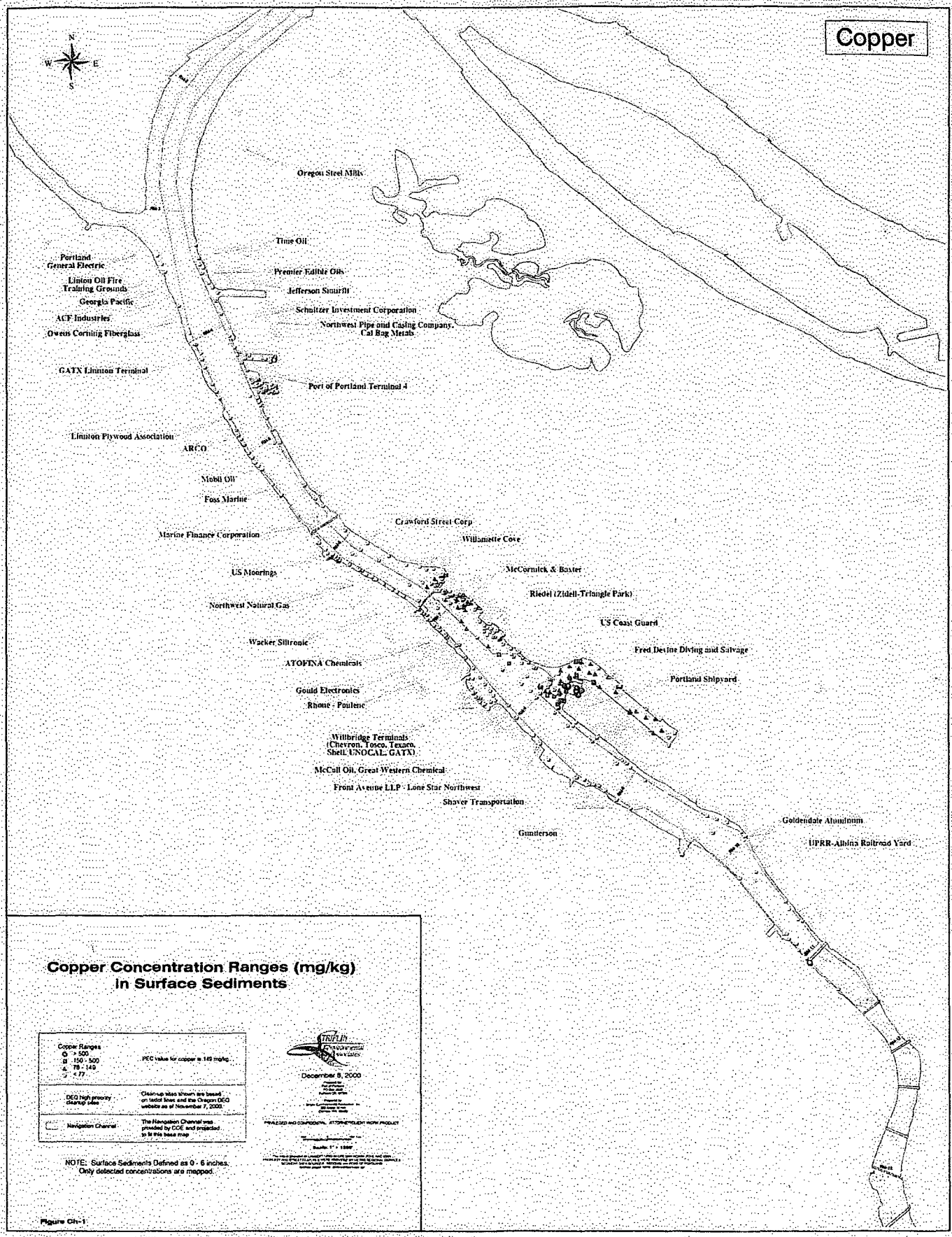

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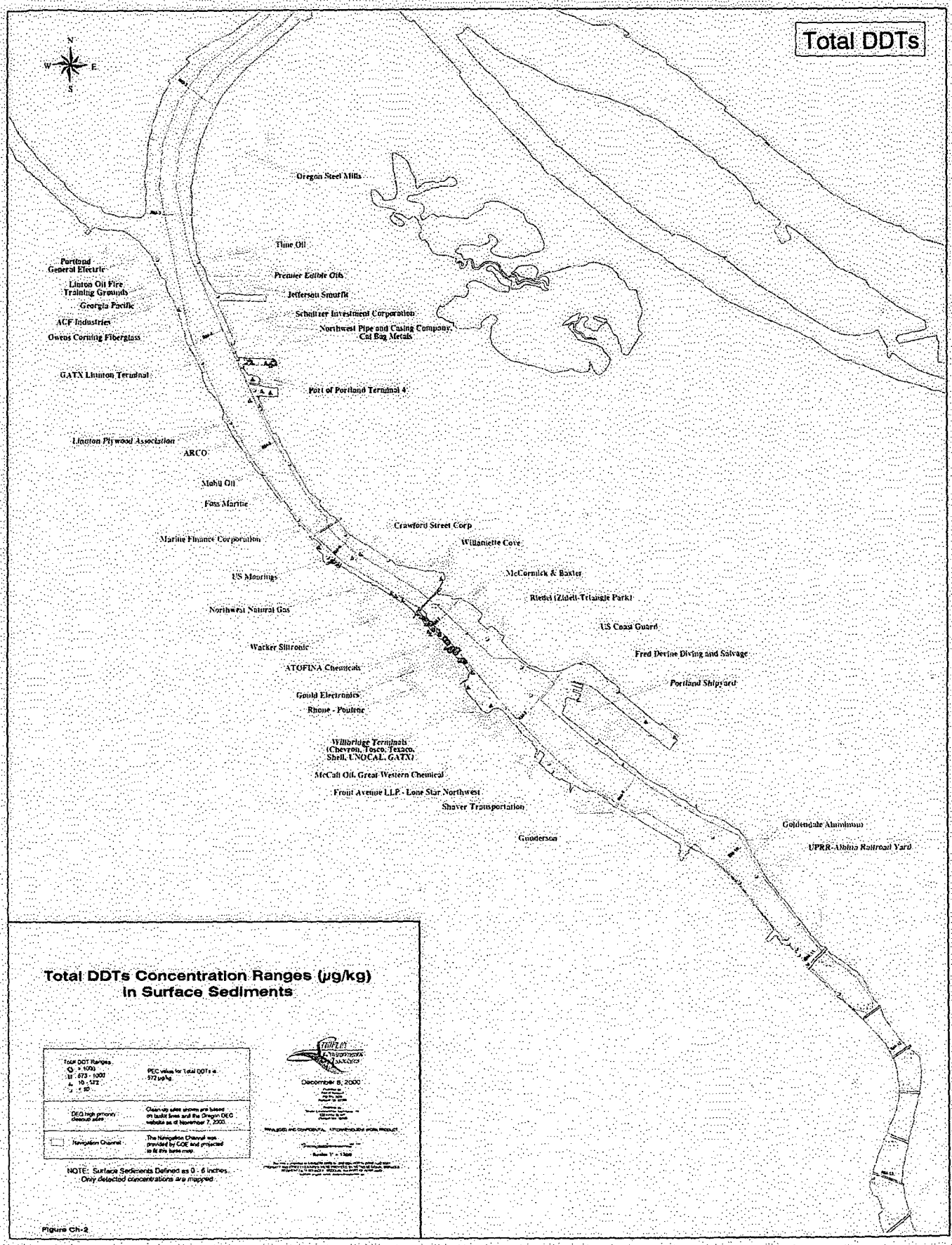

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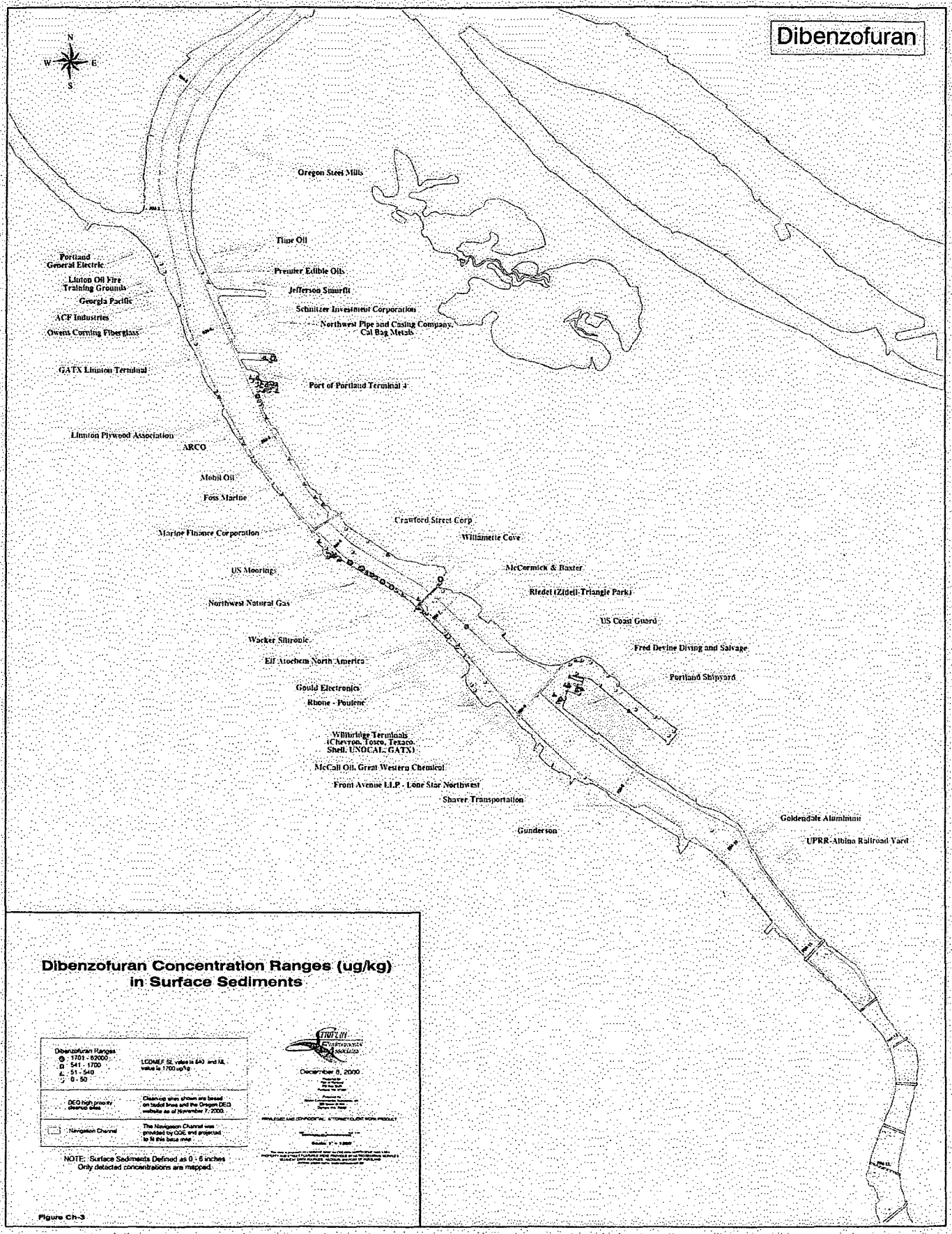

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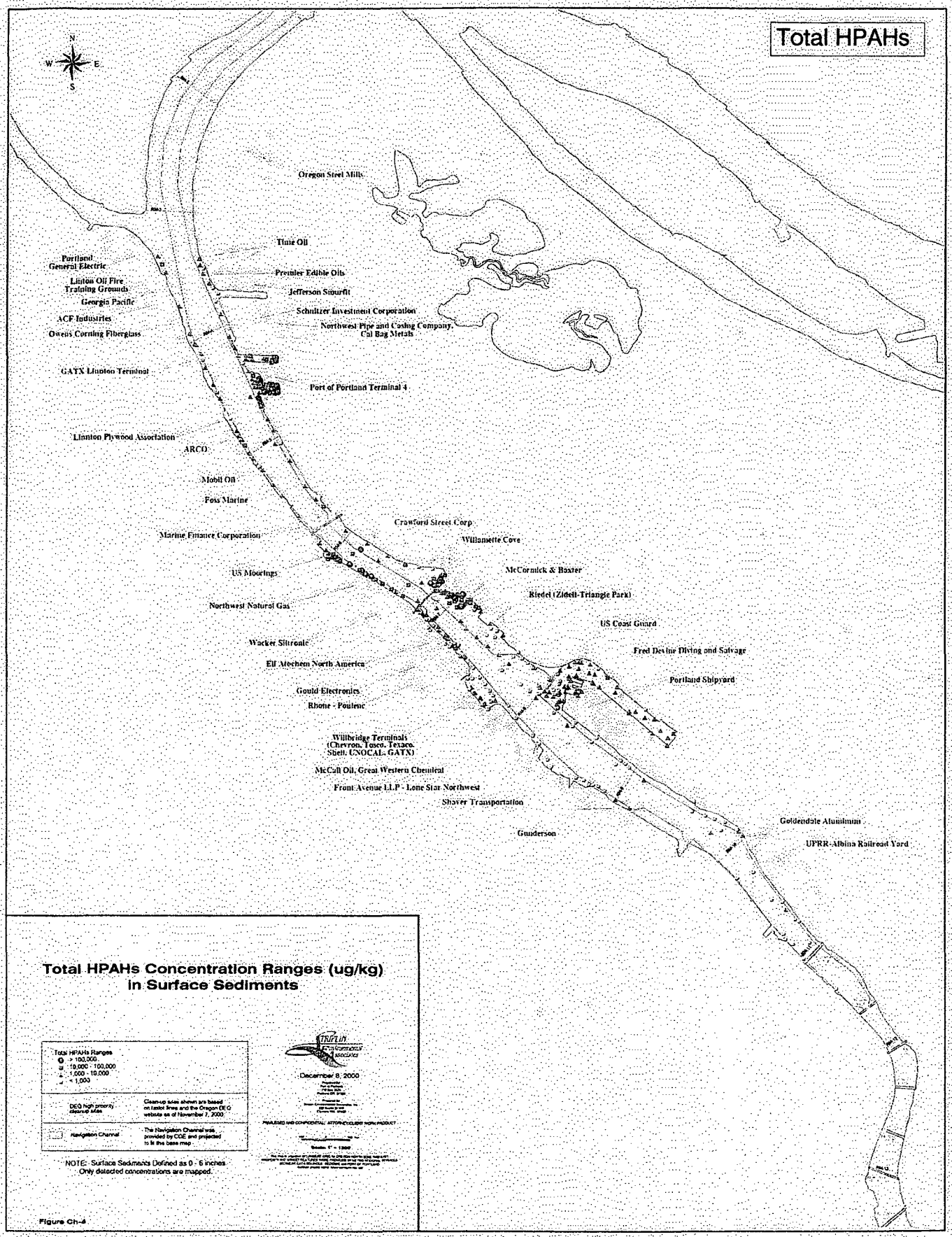

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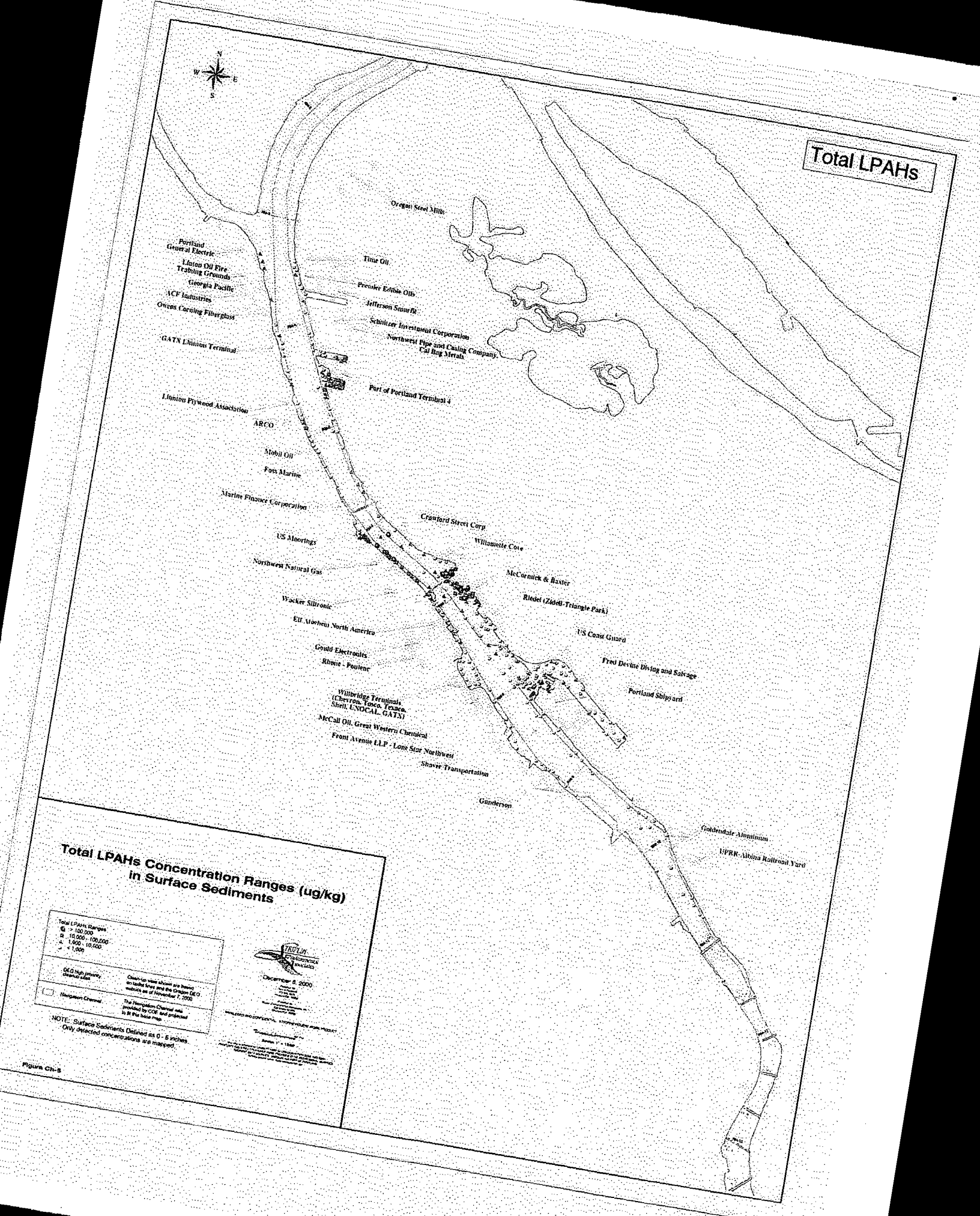

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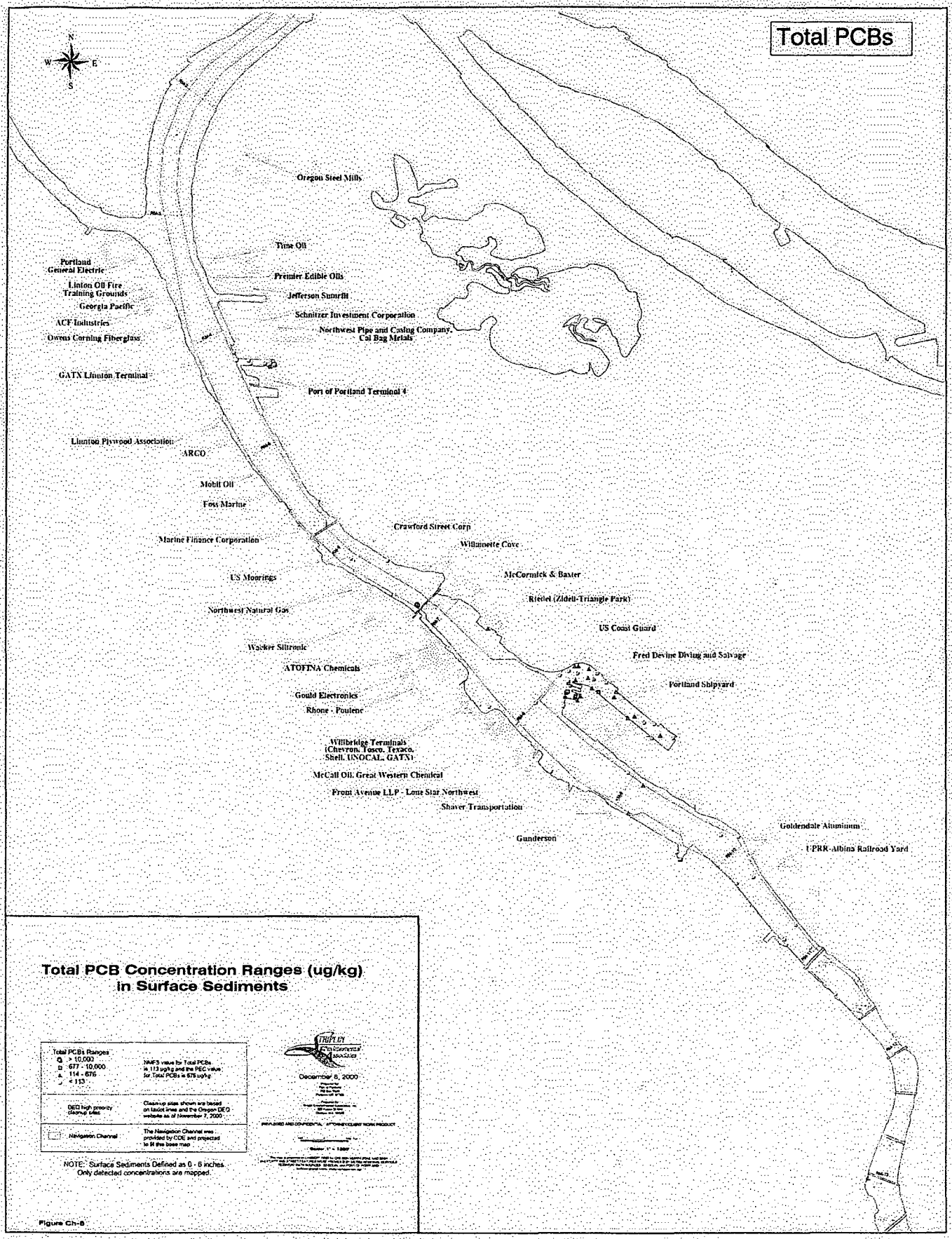

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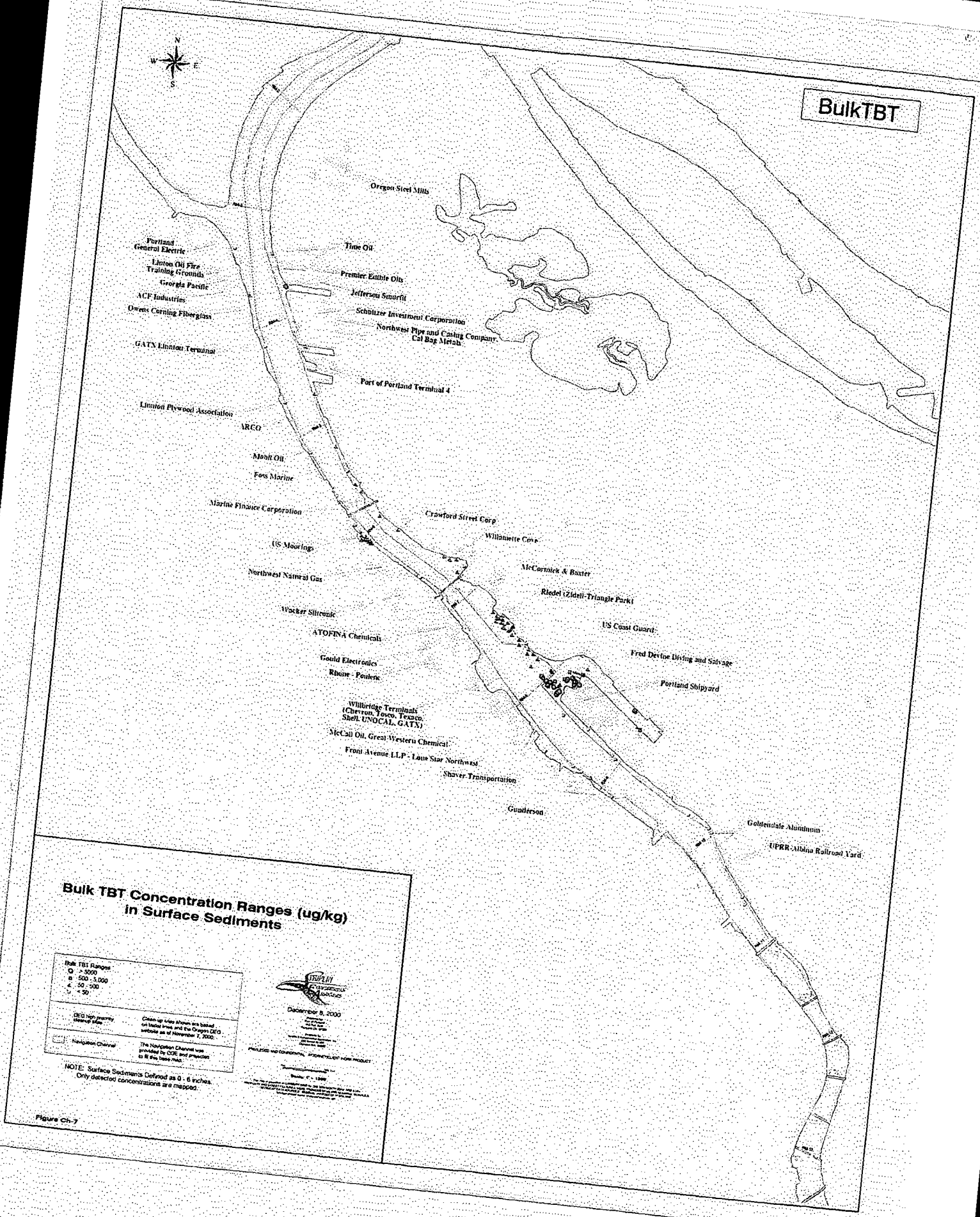

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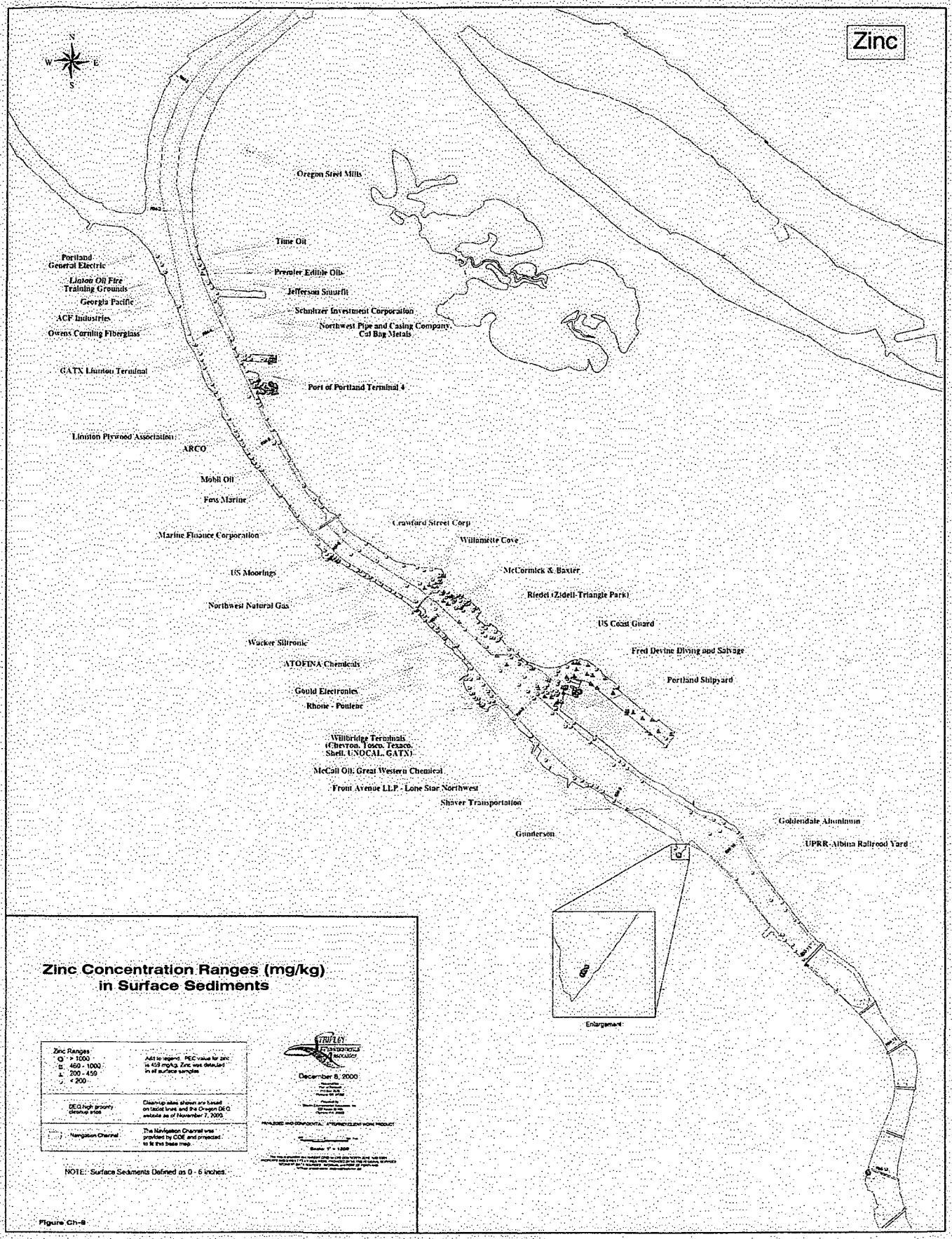

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PORTLAND HARBOR
Portland, Oregon
December 2000

Portland Harbor Added to "Superfund" List

The U.S. Environmental Protection Agency (EPA) has added the Portland Harbor site to the National Priorities List (NPL), commonly called the "Superfund" list. The NPL is EPA's list of the nation's most contaminated hazardous waste sites that are targeted for cleanup. EPA made the decision to add Portland Harbor to the NPL after considering comments received during a sixty-day public comment period.

What Happens Next?

The Oregon Department of Environmental Quality (DEQ) is already working on forty cleanup sites along the banks of the Willamette River, which are also known as upland sites. The work ranges from early stages of investigations to cleanup activities and includes identifying and controlling sources of harbor sediment contamination.

EPA is sending letters to land owners and business operators in the Portland Harbor area who may be responsible for contaminated sediments. The letters will inform these parties of their potential liability and ask them to fund or perform the investigation of the sediment contamination. EPA expects to begin negotiations with some of these potentially responsible parties early next year.

How Will the Portland Harbor Superfund Cleanup Be Managed?

EPA will have the lead on sediment work and DEQ will have the lead on the upland sites. The two agencies are coordinating very closely with six tribal governments and the other natural resource trustees for the site. The trustees are designated by law to act on behalf of the public or tribes to protect and manage natural resources, such as land, air, water, fish, and wildlife. For the

(Continued on page 2)

Background

Elevated levels of contaminants are present in a six-mile stretch of the Willamette River from the southern tip of Sauvie Island to Swan Island. The harbor sediments contain pesticides such as DDT, polychlorinated biphenyls (PCBs), heavy metals, and polynuclear aromatic hydrocarbons (carcinogenic compounds found in petroleum products).

The Lower Willamette is a popular area for recreation, including fishing. The river provides a critical migratory corridor and rearing habitat for salmon and steelhead, including endangered runs of steelhead and chinook. The area holds great importance to tribes as a natural and cultural resource, and the federal government has treaty obligations to protect "usual and customary" tribal uses of the area.

The upland area adjacent to Portland Harbor is highly industrialized, and the river has heavy marine traffic. Possible sources of the harbor contamination include former as well as current operations, such as hazardous waste and petroleum product storage; marine construction; oil gasification operations; wood treating; agricultural chemical production; chlorine production; ship loading, maintenance, and repair; and rail car manufacturing. The potentially responsible parties for the cleanup may include some that no longer have operations in the Portland Harbor area.

In July 2000, Oregon Governor John Kitzhaber concurred with EPA's decision to propose that Portland Harbor be added to the NPL, with the understanding that DEQ and EPA will work together on the cleanup, and that it will be integrated with other state initiatives to restore the health of the river.

(Continued from page 1)

Portland Harbor site, the trustees include the following:

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Siletz Indians
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Nez Perce Tribe
- National Oceanic and Atmospheric Administration
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- Oregon Department of Environmental Quality
- Oregon Department of Fish and Wildlife

Both DEQ and EPA recognize that a successful project will require participation by all of these parties.

What Are the Steps in the Cleanup Process?

EPA will continue to work with all the parties identified above throughout the project, and anticipates working with some of the parties responsible for the contamination to implement the long-term Superfund cleanup process, including the following steps:

- Remedial Investigation (RI)–This detailed study will assess the cause, nature, and extent of the contamination. The study will include evaluating existing information and potentially taking and analyzing new sediment, groundwater, surface water, fish tissue, and other samples. As the investigation proceeds, the site boundaries will be defined. A risk assessment based on the results of the RI will evaluate the human health and environmental risks from the contamination.

- Feasibility Study (FS)–This study will use the information from the RI and the risk assessment to develop options for handling the contaminated sediments. Together the remedial investigation and feasibility study are called the RI/FS.

- Proposed Plan–This document will describe various cleanup options. EPA and DEQ will work directly with our tribal and trustee partners to develop this plan and will solicit and consider public comments on this plan before making a cleanup decision.

- Record of Decision–This document will describe the cleanup decision that is selected by EPA and concurred on by DEQ after the agencies consider public comments.

- Remedial Design–The design will present detailed technical plans for carrying out the selected cleanup.

- Remedial Action–This phase will consist of the actual cleanup work at the site, which, for example, could include dredging or capping contaminated sediments.

- Operation and Maintenance–This phase will ensure that the cleanup continues to be effective. For example, if contaminated sediments were capped, there could be inspections and sampling to ensure the integrity of the cap.

How Can I Get More Information and Become Involved with the Site?

DEQ and EPA are beginning to plan joint public involvement activities for the project. The agencies will be revising DEQ's Draft Portland Harbor Public Involvement Plan this winter so that it reflects both DEQ and EPA's activities. The public is encouraged to review the draft plan, which is already available on the DEQ web site, and provide suggestions on activities that would encourage public involvement and understanding of the project. EPA and DEQ's Portland Harbor web sites are linked to each other and updated periodically. You can get more information about the project from these web sites and the project contacts at the end of this fact sheet.

Funds Available

An initial EPA technical assistance grant (TAG) of up to $50,000 is available to an eligible group whose members may be affected by the Portland Harbor Superfund site. Most of the grant funds must be used for a technical advisor to help the community understand technical information about the site. Only one TAG may be awarded for the site, and EPA expects to select the TAG recipient by next spring. To date, one organization, Willamette Riverkeeper, has expressed interest in the TAG.

If your group is interested in applying for the TAG, please contact Cindy Colgate at the phone number below.

Interested in Meeting with Us?

DEQ, EPA, and others on the project teams are interested in meeting with groups that would like to have more information about the Portland Harbor site. **If you would like project team representatives to meet with your group, please contact Kim Cox or Cindy Colgate at the phone numbers below.**

More Information

EPA and DEQ want to make sure that you have access to useful information about the Portland Harbor project. Please contact either Cindy Colgate at EPA or Kim Cox at DEQ to let us know how we can provide information that suits your needs.

For electronic information:

EPA Region 10 web site
http://www.epa.gov/r10earth/
Click on "Index," then "P,"
and then "Portland Harbor, Oregon."

DEQ Portland Harbor web site
http://www.deq.state.or.us/
Click on "Programs,"
then "Environmental Cleanup and Spills,"
and then "Portland Harbor."

For general information:

Cindy Colgate
EPA Community Involvement Coordinator
206-553-1815 or toll free at 1-800-424-4372
colgate.cindy@epa.gov

Kim Cox
DEQ Portland Harbor Project Coordinator
503-229-6590
cox.kim@deq.state.or.us

For technical information:

Wallace Reid, EPA Project Manager
206-553-1728 or toll-free at 1-800-424-4372
reid.wallace@epa.gov

Chip Humphrey, EPA Project Manager
503-326-2678
humphrey.chip@epa.gov

Eric Blischke, DEQ Project Manager
503-229-5648
blischke.eric@deq.state.or.us

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the EPA representatives listed above.

United States
Environmental Protection
Agency

Region 10 (ECO-081)
1200 Sixth Avenue
Seattle WA 98101

PRE-SORTED STD
POSTAGE & FEES PAID
U.S. EPA
Permit No. G-35

MATHEW CUSMA
SCHNITZER STEEL
P.O. Box 10047
PORTLAND, OR 97296-0047

26,974

Portland Harbor Site
Portland, Oregon

SCHN00152438

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

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TTY (503) 229-6993

July 6, 2000

Tom Zelenka
Schnitzer Industries
3200 NW Yeon Avenue
Portland, OR 97210

Dear Mr. Zelenka,

Thanks for meeting with us last week. You've raised some good questions, and as I mentioned during the meeting, we'll look into them and make changes where appropriate.

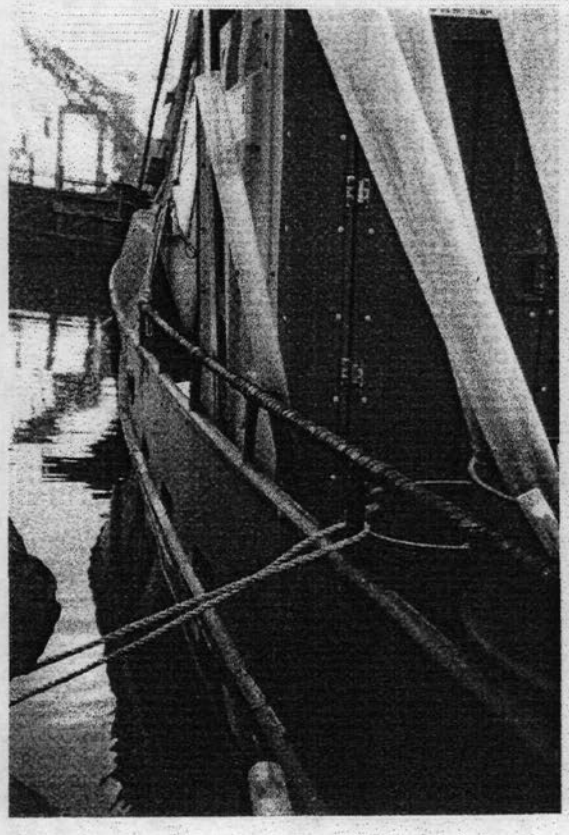
I'll be in touch with Matt Cusma regarding the specific technical issues we discussed in the next few weeks. Please don't hesitate to contact me at 503-229-5332.

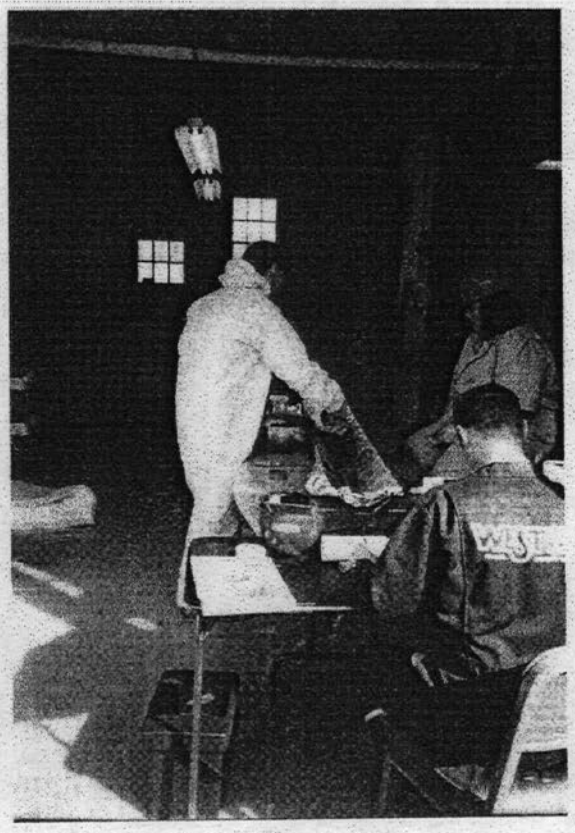
Sincerely,

In the meantime,

Paul Slyman
Administrator
Environmental Cleanup Division

DEQ-1





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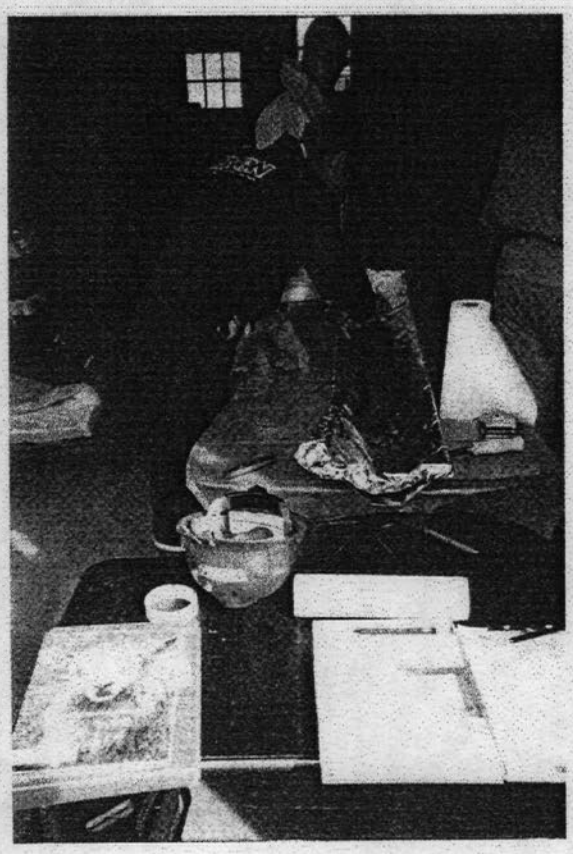

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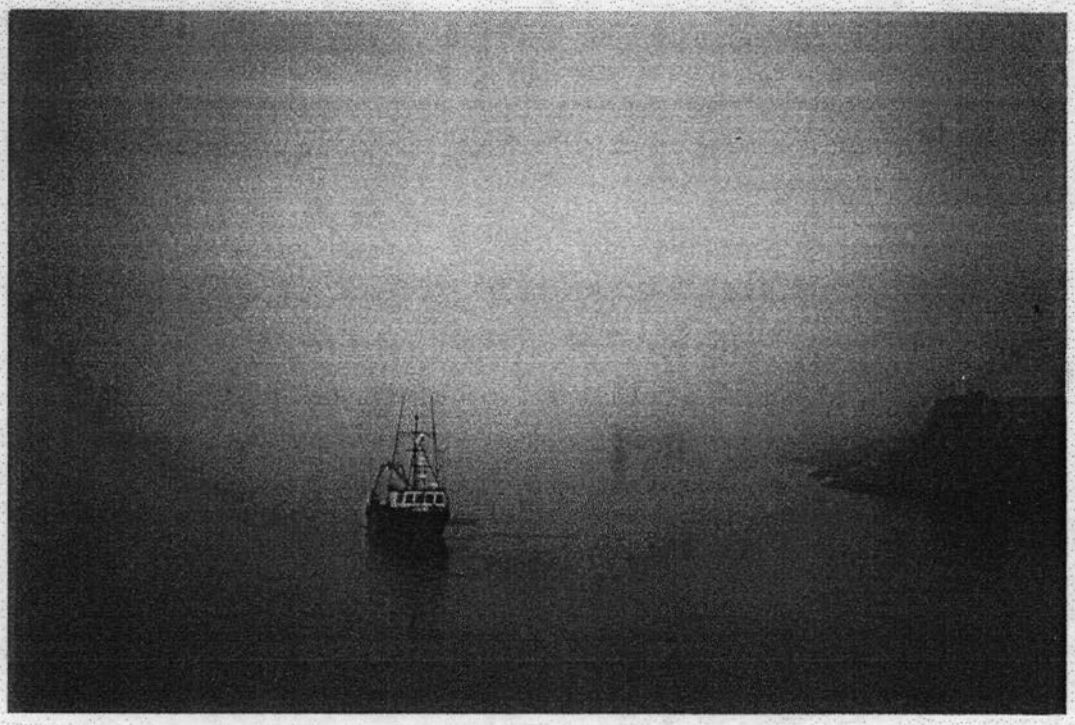

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SCHNITZER STEEL INDUSTRIES, INC.
3200 NW Yeon Avenue
P.O. Box 10047
Portland, Oregon 97296-0047
Phone: (503) 224-9900
Fax: (503) 323-2804
Telex: 289875

Transmittal

To: Alice Meyers **Date:** April 7, 2003

From: Mat Cusma **Pages:** 3

Re: Burgard Water Supply Wells

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Alice –

Enclosed are two drawings of the Burgard Facility (different scales and coverage). I have penciled in the locations of the water supply wells at the site.

Wells #1-5 were installed in the early 1940s when the site was first developed as a ship yard. I do not know when Well #6 was installed.

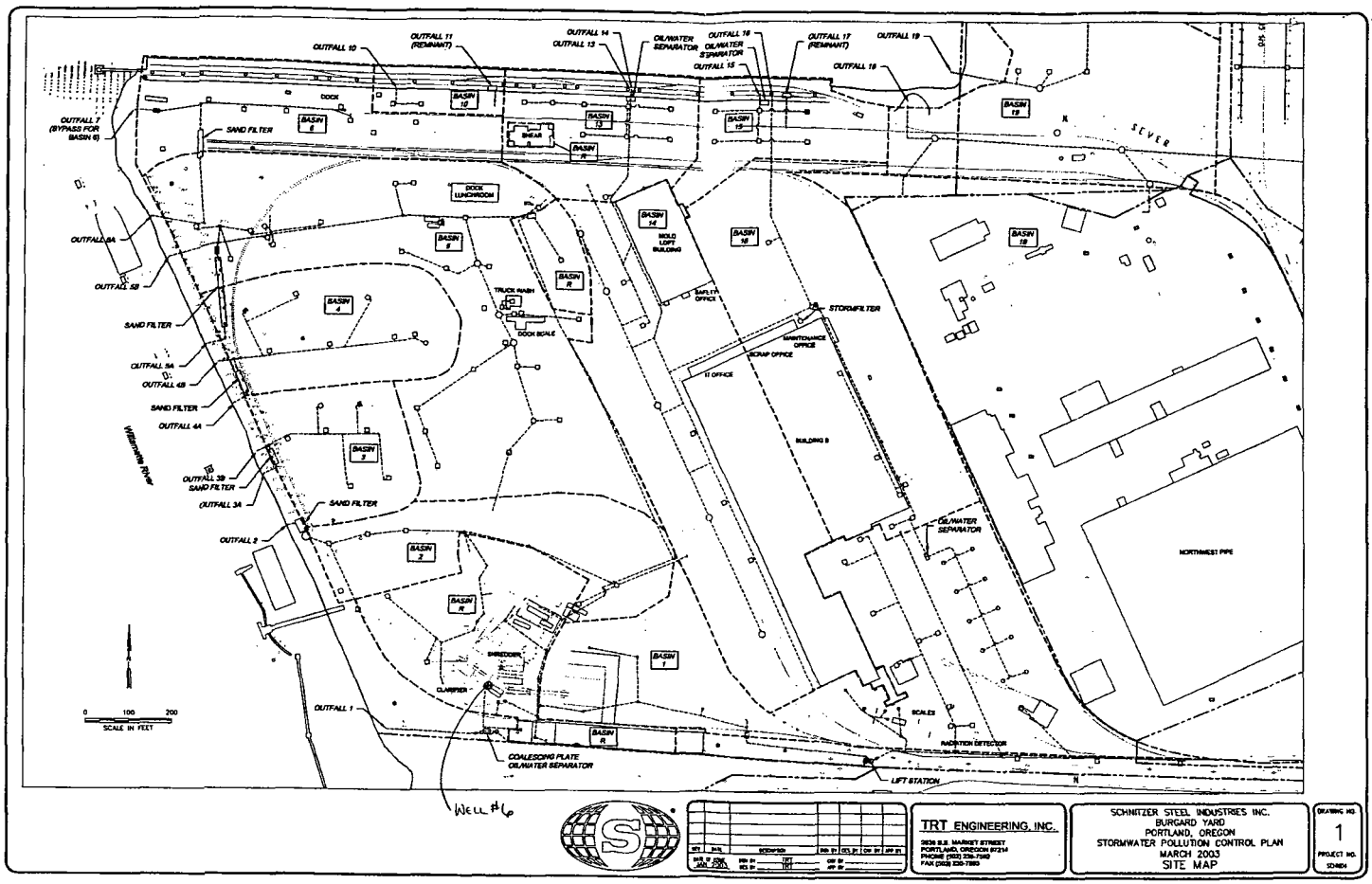
Well #4 was properly abandoned some time ago. Well #5 has no power supply to the pump house.

As I indicated to you on the phone, to my knowledge only Wells #1 and #6 are actively used. We use water from Well #6 as make-up cooling water for our shredder. The cooling water is continuously recycled through a treatment system for re-use. We use water from Well #1 in the summer for dust suppression. During extended dry periods, we periodically fill a water truck at the well, and spray the roadways, taking care to minimize any runoff.

I hope you find this information is useful. Please call me with any questions.

- Mathew Cusma

503/286-6944



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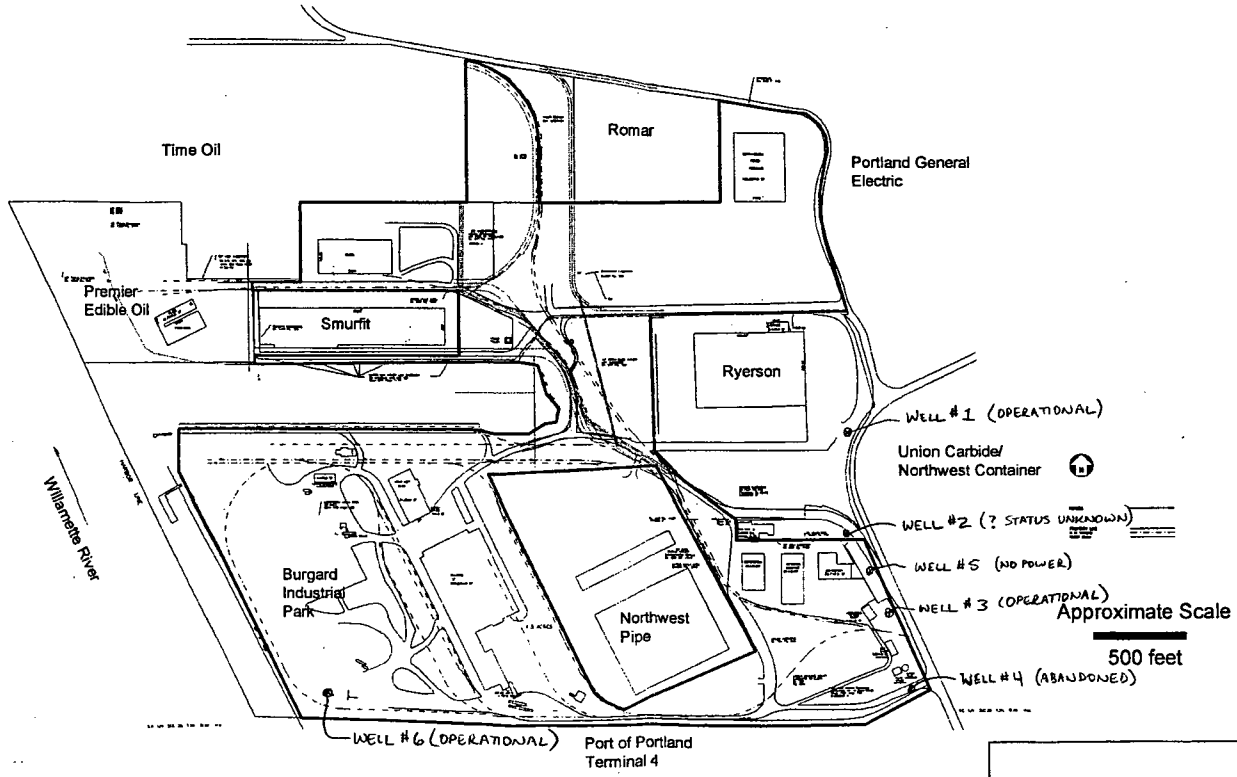

Figure 1-3
Site Plan
Burgard Industrial Park

Bridgewater Group, Inc.

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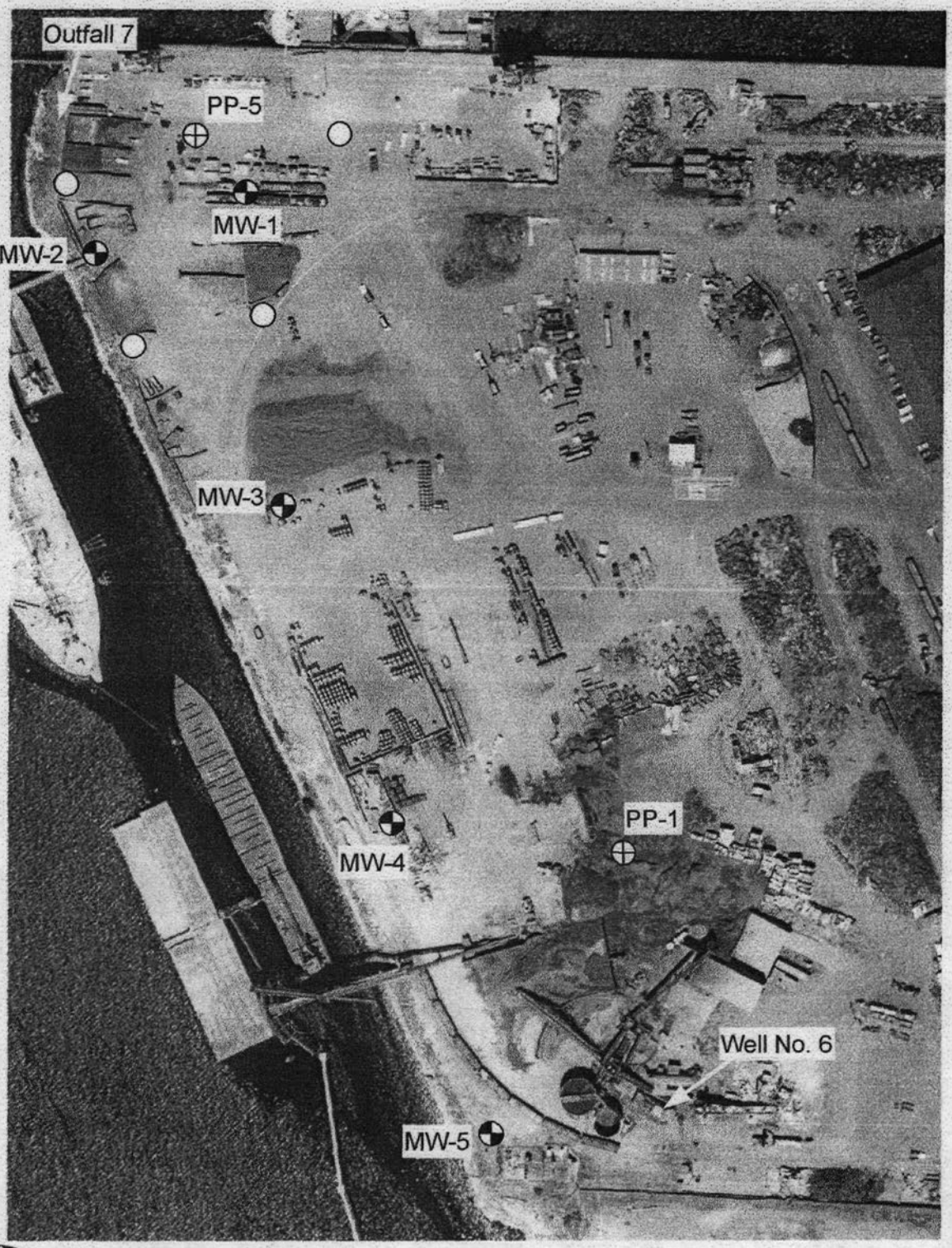

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Approximate Scale

220 feet

Monitoring Well

Push Probe

Possible Phase II Push Probe

Figure 1
Possible Phase II Explorations
Burgard Industrial Park

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SCHN00152536

BRIDGEWATER GROUP, INC.

Phase I RI Conclusions
Burgard Industrial Park

TO: Alicia Voss/DEQ

COPY: Mat Cusma/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: August 8, 2002

This memorandum presents conclusions of the Phase I Remedial Investigation (RI) at the Burgard Industrial Park in Portland, Oregon. The results of the Phase I RI are presented in a May 16, 2002, *Phase I Remedial Investigation Report*. This memorandum discusses the results relative to the potential pathways from each Feature of Concern (FOC) assessed in the Phase I RI to the Willamette River. The FOCs and pathways were assessed through the Phase I RI sampling and analysis in accordance with the October 29, 2001, Phase I RI Work Plan, which was approved by DEQ in a November 1, 2001, email.

The specific FOCs addressed by the Phase I RI were:

- Former Northwest Oil Company Oil Tanks
- Former Shipyard Sanitary Sewer and Storm Water Discharges
- Former Shipyard Shipways
- ASR Staging Area
- Southeast Area
- Outfall 1 Plug Area

The Phase I RI also included an assessment of the storm water discharge areas. A catch basin soil sample was also collected in the Northwest Pipe area in the Southeast Area.

Former Northwest Oil Company Tanks

As noted in the Phase I RI Work Plan, any releases that may have occurred from the former Northwest Oil Tanks would have occurred below the current ground surface. Dredge fill has been placed over this area since the tanks were removed in the early 1940s. Thus, migration of contaminants from surface soils to the river, either through surface water or air, is not a relevant contaminant migration pathway for this FOC.

Groundwater samples from monitoring wells MW-1 and MW-2 and push probe PP-5 assessed the groundwater in the area of, and down gradient from, the Former Northwest Oil Company tanks. PCBs and semi-volatile organic compounds (SVOCs), including PAHs, were not detected in any of the groundwater samples from the area of the Former Northwest Oil Company tanks. Tetrachloroethene (PCE) was detected in a groundwater sample from MW-1, located near the center of the Former Northwest Oil Tanks area, at a concentration exceeding the EPA ambient water quality criteria. It is our understanding that

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DEQ has suggested using this criterion as a measure of whether discharge of groundwater to the river could pose a threat. However, the PCE the concentration in the groundwater sample from MW-2 was less then the EPA water quality criteria and PCE was not detected in the groundwater sample from PP-5. MW-2 and PP-5 are located between MW-1 and the river and slip, respectively. Thus, contaminants are not migrating through the groundwater pathway from the Former Northwest Oil Company tanks area to the Willamette River at concentrations greater than EPA water quality criteria.

Petroleum hydrocarbons, PAHs, and PCBs were detected at low concentrations in soil samples from depths of 7 feet or greater in the borings in the Northwest Oil Tank area. Given the depth of these soil samples, the measured concentrations are of a concern solely as potential sources to groundwater contamination. As discussed above, however, the groundwater sampling and analysis indicates that groundwater migration is not a pathway of concern. Therefore, the low contaminant concentrations in the deep soils in the area of the Former Northwest Oil Company tanks are not a potential source of contaminants to the river.

Former Shipyard Sanitary Sewer and Storm Water Discharges and Former Shipways

As was the case for the former Northwest Oil Company tanks area, any releases that may have occurred from the former shipyard sanitary sewer and storm water discharge points or from the former shipyard ways would have occurred below the current ground surface. Dredge fill has been placed over this area since the shipyard was abandoned in 1944. Thus, migration of contaminants from surface soils to the river, either through surface water or air, is not a relevant contaminant migration pathway for this FOC.

Groundwater samples from monitoring wells MW-2, MW-3, MW-4, and MW-5 assessed the groundwater at, and down gradient from, the discharge points for the former shipyard sanitary sewers and storm water system and from the former shipways. Neither volatile organic compounds (VOCs) nor PAHs were detected in groundwater samples from any of these wells. Concentrations of metals measured in groundwater samples from MW-2. MW-3, and MW-4 were greater than the EPA ambient water quality criteria. However, the measured concentrations are similar to background concentrations measured in other areas of Portland. In particular, total metal concentrations in groundwater samples collected along a 5-mile length of the Willamette River for the City of Portland Combined Sewer Overflow project were about the same or greater than the concentrations measured in the groundwater samples from monitoring wells MW-2, MW-3, MW-4, and MW-5. Thus, the presence of total metals in the groundwater samples from these wells likely represents naturally occurring concentrations.

Diesel and heavy oil petroleum hydrocarbons, PAHs, and PCBs were detected at low concentrations in soil samples from depths of 7 feet or greater in the borings in the northern portion of the former shipyard sanitary sewer and storm water discharge/shipways area. Some metals were also detected at concentrations greater than the Portland Harbor sediment baseline concentrations in these deep soil samples. Given the depth of these soil samples, the measured concentrations are of a concern solely as potential sources to groundwater contamination. As discussed above, however, the groundwater sampling and analysis indicates that groundwater migration is not a pathway of concern. Therefore, the low contaminant concentrations in the deep soils in the area of the former shipyard sanitary sewer and storm water discharge/shipways do not pose a threat to the river.

SCHN00152539

ASR on Ground Surface in Southwest Area

Low concentrations of diesel and heavy oil petroleum hydrocarbons and PAHs were detected in the near surface soil samples from the former ASR staging area. Concentrations of some metals were also noted at levels greater than Portland Harbor sediment baseline concentrations. However, the depth of contamination was limited, and subsequent to Phase I sampling, this area was excavated (approximately18 to 24-inches deep) for construction of a concrete pad. Surface water runoff from this area is captured and directed to the closed loop treatment system for use as make-up cooling water for the shredder. This surface water runoff is not discharged to the river. Thus, the former ASR staging area does not pose a threat to the river through the surface water pathway. The presence of the pad also prevents migration from the surface soil to the river through the air pathway.

The concentrations of petroleum hydrocarbons and PAHs decreased dramatically with depth. PAHs were not detected in the soil sample from a depth of 9 feet. Petroleum hydrocarbons were not detected in the soil sample from a depth of 13 feet and were detected at a concentration only slightly greater than the detection limit in the soil sample from a depth of 9 feet. Groundwater was encountered in the push probe exploration at a depth of about 20 feet. Given the lack of contaminants at the groundwater table and the relative insolubility of the near surface contaminants, groundwater is not a contaminant migration pathway from the former ASR staging area to the river. In addition, the presence of the concrete pad prevents infiltration of surface water into the subsurface. The lack of contaminants in the groundwater sample from MW-4, located down gradient from the ASR area, also indicates that contaminants are not migrating from the former ASR staging area to the river through the groundwater pathway.

Southeast Area

Heavy oil petroleum hydrocarbons and PAHs were detected in near surface soil samples at the PBM wash pad and at the Western Machine Works compressor. Several metals were detected at concentrations greater than Portland Harbor sediment baseline concentrations in the PBM wash pad area. However, the area of unpaved soil represented by these samples is small, and little, if any, surface water runoff occurs from these areas. As a consequence of the area size and location, incident rainfall is more likely to infiltrate into the soil rather than running off to the storm water collection system. Notwithstanding the lack of potential surface water runoff from these areas, Schnitzer will remove the contaminated near surface soil in the PBM wash pad and Western Machine Works compressor areas to further prevent any potential migration of contaminants from this area.

Lead was detected at a concentration greater than its Portland Harbor sediment baseline concentration in a soil sample from a depth of 2 feet in MW-7 in the Southeast Area. However, pavement in this area prevents surface water from contacting this soil and, thus, the surface water pathway is not a pathway of concern.

Tetrachloroethene and 1,1,1-trichloroethane were detected in groundwater samples from MW-7 and PP-4, located in the southeast area. These concentrations are less than the EPA ambient water quality criteria. It is our understanding that DEQ uses this criterion as a measure of whether discharge of groundwater to the river could pose a threat. Based on this criterion, these contaminants do not pose a threat to the river. In addition, the river slip is about ¼ mile away from MW-7 and PP-4.

Arsenic was detected in the groundwater sample from MW-7 at a concentration greater than the EPA ambient water quality criteria. However, the measured concentration is similar

to arsenic concentrations measured throughout the Portland area indicating that the presence of arsenic in the groundwater samples from this well likely represents naturally occurring concentrations. In addition, the sample location is over ¼ mile distant from the slip and approximately ½ mile from the river, indicating this low concentration of arsenic does not pose a threat to the river.

Outfall 1 Plug Area

As noted in the Phase I RI Work Plan, any releases that may have occurred in the Outfall 1 plug area would have occurred below the current ground surface. The storm drain line is buried by about 8 feet of dredge fill that was placed over this area in the early 1940s. Thus, migration of contaminants from surface soils to the river, either through surface water or air, is not a relevant contaminant migration pathway for this FOC.

A groundwater sample from monitoring well MW-6 assessed the groundwater in the area of the Outfall 1 plug. Petroleum hydrocarbons, VOCs, and SVOCs were not detected in the groundwater sample from MW-6. Thus, petroleum hydrocarbons, VOCs, and SVOCs do not pose a threat to the river through the groundwater migration pathway. Arsenic was detected in the groundwater sample from MW-6 at a concentration greater than the EPA ambient water quality criteria. However, the measured concentration is similar to concentrations measured throughout the Portland area indicating that the presence of arsenic in the groundwater sample from this well likely represents naturally occurring concentrations.

Petroleum hydrocarbons, PAHs, and PCBs were not detected in soil samples collected from the MW-6 boring. The metal concentrations in the soil samples from MW-6 were near, or less than, the Portland Harbor sediment baseline concentrations. Given the lack of contaminants in the soil samples from MW-6, the soil in the area of the Outfall 1 plug is not a source of groundwater contamination and does not pose a threat to the river.

General Storm Water Discharge

In accordance with the Phase I RI work plan, the storm water discharges at the Site were assessed to develop a storm water outfall soil sampling program. The purpose of the storm water outfall soil sampling program was to assess whether storm water runoff from the current site is a contaminant migration pathway to the river. As noted in a January 11, 2002 memorandum, Outfall 7 was found to be the only outfall where representative soil samples could be collected. Concentrations of several metals were detected in the Outfall 7 soil sample at concentrations greater than typical background concentrations and greater than the Portland Harbor sediment baseline concentrations. SIC is currently preparing a BMP-based plan that will show how the potential for releases of contaminants through the site storm water pathway will be addressed.

Northwest Pipe Catch Basin Sediment Sample

The Phase I RI work plan proposed collection of sediment samples from several catch basins located in the Southeast Area. Sediment was present in only one of the catch basins at the time of the RI sampling (due to the regular catch basin maintenance program). The one catch basin (CB-7) where sediment was present was located in the far southeast corner of the Burgard site, on property leased by Northwest Pipe.

Heavy oil petroleum hydrocarbons and PAHs were detected in the sediment sample. Several metals were detected at concentrations greater than the Portland Harbor Sediment baseline concentrations. The presence of the contaminants in the catch basin sediments

indicates that the catch basin is functioning properly, but that the sediments should be regularly cleaned out. SIC has notified Northwest Pipe of the presence of the contaminants in the catch basin sediments and recommended this catch basin be added to NW Pipe's regular maintenance program.

Please call if you have any questions.

BRIDGEWATER GROUP, INC.

Phase I RI Conclusions
Burgard Industrial Park

TO: Alicia Voss/DEQ

COPY: Mat Cusma/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: August 8, 2002

This memorandum presents conclusions of the Phase I Remedial Investigation (RI) at the Burgard Industrial Park in Portland, Oregon. The results of the Phase I RI are presented in a May 16, 2002, *Phase I Remedial Investigation Report*. This memorandum discusses the results relative to the potential pathways from each Feature of Concern (FOC) assessed in the Phase I RI to the Willamette River. The FOCs and pathways were assessed through the Phase I RI sampling and analysis in accordance with the October 29, 2001, Phase I RI Work Plan, which was approved by DEQ in a November 1, 2001, email.

The specific FOCs addressed by the Phase I RI were:

- Former Northwest Oil Company Oil Tanks
- Former Shipyard Sanitary Sewer and Storm Water Discharges
- Former Shipyard Shipways
- ASR Staging Area
- Southeast Area
- Outfall 1 Plug Area

The Phase I RI also included an assessment of the storm water discharge areas. A catch basin soil sample was also collected in the Northwest Pipe area in the Southeast Area.

Former Northwest Oil Company Tanks

As noted in the Phase I RI Work Plan, any releases that may have occurred from the former Northwest Oil Tanks would have occurred below the current ground surface. Dredge fill has been placed over this area since the tanks were removed in the early 1940s. Thus, migration of contaminants from surface soils to the river, either through surface water or air, is not a relevant contaminant migration pathway for this FOC.

Groundwater samples from monitoring wells MW-1 and MW-2 and push probe PP-5 assessed the groundwater in the area of, and down gradient from, the Former Northwest Oil Company tanks. PCBs and semi-volatile organic compounds (SVOCs), including PAHs, were not detected in any of the groundwater samples from the area of the Former Northwest Oil Company tanks. Tetrachloroethene (PCE) was detected in a groundwater sample from MW-1, located near the center of the Former Northwest Oil Tanks area, at a concentration exceeding the EPA ambient water quality criteria. It is our understanding that

SCHN00152554

DEQ has suggested using this criterion as a measure of whether discharge of groundwater to the river could pose a threat. However, the PCE the concentration in the groundwater sample from MW-2 was less then the EPA water quality criteria and PCE was not detected in the groundwater sample from PP-5. MW-2 and PP-5 are located between MW-1 and the river and slip, respectively. Thus, contaminants are not migrating through the groundwater pathway from the Former Northwest Oil Company tanks area to the Willamette River at concentrations greater than EPA water quality criteria.

Petroleum hydrocarbons, PAHs, and PCBs were detected at low concentrations in soil samples from depths of 7 feet or greater in the borings in the Northwest Oil Tank area. Given the depth of these soil samples, the measured concentrations are of a concern solely as potential sources to groundwater contamination. As discussed above, however, the groundwater sampling and analysis indicates that groundwater migration is not a pathway of concern. Therefore, the low contaminant concentrations in the deep soils in the area of the Former Northwest Oil Company tanks are not a potential source of contaminants to the river.

Former Shipyard Sanitary Sewer and Storm Water Discharges and Former Shipways

As was the case for the former Northwest Oil Company tanks area, any releases that may have occurred from the former shipyard sanitary sewer and storm water discharge points or from the former shipyard ways would have occurred below the current ground surface. Dredge fill has been placed over this area since the shipyard was abandoned in 1944. Thus, migration of contaminants from surface soils to the river, either through surface water or air, is not a relevant contaminant migration pathway for this FOC.

Groundwater samples from monitoring wells MW-2, MW-3, MW-4, and MW-5 assessed the groundwater at, and down gradient from, the discharge points for the former shipyard sanitary sewers and storm water system and from the former shipways. Neither volatile organic compounds (VOCs) nor PAHs were detected in groundwater samples from any of these wells. Concentrations of metals measured in groundwater samples from MW-2. MW-3, and MW-4 were greater than the EPA ambient water quality criteria. However, the measured concentrations are similar to background concentrations measured in other areas of Portland. In particular, total metal concentrations in groundwater samples collected along a 5-mile length of the Willamette River for the City of Portland Combined Sewer Overflow project were about the same or greater than the concentrations measured in the groundwater samples from monitoring wells MW-2, MW-3, MW-4, and MW-5. Thus, the presence of total metals in the groundwater samples from these wells likely represents naturally occurring concentrations.

Diesel and heavy oil petroleum hydrocarbons, PAHs, and PCBs were detected at low concentrations in soil samples from depths of 7 feet or greater in the borings in the northern portion of the former shipyard sanitary sewer and storm water discharge/shipways area. Some metals were also detected at concentrations greater than the Portland Harbor sediment baseline concentrations in these deep soil samples. Given the depth of these soil samples, the measured concentrations are of a concern solely as potential sources to groundwater contamination. As discussed above, however, the groundwater sampling and analysis indicates that groundwater migration is not a pathway of concern. Therefore, the low contaminant concentrations in the deep soils in the area of the former shipyard sanitary sewer and storm water discharge/shipways do not pose a threat to the river.

ASR on Ground Surface in Southwest Area

Low concentrations of diesel and heavy oil petroleum hydrocarbons and PAHs were detected in the near surface soil samples from the former ASR staging area. Concentrations of some metals were also noted at levels greater than Portland Harbor sediment baseline concentrations. However, the depth of contamination was limited, and subsequent to Phase I sampling, this area was excavated (approximately18 to 24-inches deep) for construction of a concrete pad. Surface water runoff from this area is captured and directed to the closed loop treatment system for use as make-up cooling water for the shredder. This surface water runoff is not discharged to the river. Thus, the former ASR staging area does not pose a threat to the river through the surface water pathway. The presence of the pad also prevents migration from the surface soil to the river through the air pathway.

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Heavy oil petroleum hydrocarbons and PAHs were detected in near surface soil samples at the PBM wash pad and at the Western Machine Works compressor. Several metals were detected at concentrations greater than Portland Harbor sediment baseline concentrations in the PBM wash pad area. However, the area of unpaved soil represented by these samples is small, and little, if any, surface water runoff occurs from these areas. As a consequence of the area size and location, incident rainfall is more likely to infiltrate into the soil rather than running off to the storm water collection system. Notwithstanding the lack of potential surface water runoff from these areas, Schnitzer will remove the contaminated near surface soil in the PBM wash pad and Western Machine Works compressor areas to further prevent any potential migration of contaminants from this area.

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to arsenic concentrations measured throughout the Portland area indicating that the presence of arsenic in the groundwater samples from this well likely represents naturally occurring concentrations. In addition, the sample location is over ¼ mile distant from the slip and approximately ½ mile from the river, indicating this low concentration of arsenic does not pose a threat to the river.

Outfall 1 Plug Area

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A groundwater sample from monitoring well MW-6 assessed the groundwater in the area of the Outfall 1 plug. Petroleum hydrocarbons, VOCs, and SVOCs were not detected in the groundwater sample from MW-6. Thus, petroleum hydrocarbons, VOCs, and SVOCs do not pose a threat to the river through the groundwater migration pathway. Arsenic was detected in the groundwater sample from MW-6 at a concentration greater than the EPA ambient water quality criteria. However, the measured concentration is similar to concentrations measured throughout the Portland area indicating that the presence of arsenic in the groundwater sample from this well likely represents naturally occurring concentrations.

Petroleum hydrocarbons, PAHs, and PCBs were not detected in soil samples collected from the MW-6 boring. The metal concentrations in the soil samples from MW-6 were near, or less than, the Portland Harbor sediment baseline concentrations. Given the lack of contaminants in the soil samples from MW-6, the soil in the area of the Outfall 1 plug is not a source of groundwater contamination and does not pose a threat to the river.

General Storm Water Discharge

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Northwest Pipe Catch Basin Sediment Sample

The Phase I RI work plan proposed collection of sediment samples from several catch basins located in the Southeast Area. Sediment was present in only one of the catch basins at the time of the RI sampling (due to the regular catch basin maintenance program). The one catch basin (CB-7) where sediment was present was located in the far southeast corner of the Burgard site, on property leased by Northwest Pipe.

Heavy oil petroleum hydrocarbons and PAHs were detected in the sediment sample. Several metals were detected at concentrations greater than the Portland Harbor Sediment baseline concentrations. The presence of the contaminants in the catch basin sediments

indicates that the catch basin is functioning properly, but that the sediments should be regularly cleaned out. SIC has notified Northwest Pipe of the presence of the contaminants in the catch basin sediments and recommended this catch basin be added to NW Pipe's regular maintenance program.

Please call if you have any questions.

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Table 1
Storm Water Outfall Assessment
Burgard Industrial Park RI/FS

Date: 1/4/2002
Survey Time Start/Finish: 10 AM / Noon
Willamette River Elevation[2] Start/Finish: 7.2 / 6.5 ft

	Outfall[1]	Invert Elev[2] (ft)	Distance to Ground Surface From Invert (ft)	Discharge Ground Surface Elev (ft)	Ground Surface Condition Below Invert	Recent Grading at Discharge Point?	Meet Sampling Criteria?
	1	<4	Submerged	<4	Discharge beneath water surface.	No	No
	2	20.2	5.5	14.7	Nominal 1-ft riprap on slope.	No	No
	3TF	14.7	0.5	14.2	Slope covered with 6-ft and greater concrete debris.	No	No
R-A	~~3R~~	19.3	4	15.3	Nominal 1 to 2-ft riprap on slope.	No	No
	3HF	22.1	4.7	17.4	Nominal 1-ft riprap on slope.	No	No
	4TF	15.1	1	14.1	Slope covered with 6-ft and greater concrete debris.	No	No
R-B	~~4R~~	19.9	3.3	16.6	Slope covered with 6-ft and greater concrete debris. Some riprap.	No	No
	4HF	22.3	5.9	16.4	Slope covered with 6-ft and greater concrete debris. Some riprap.	No	No
	5TF	12.3	2	10.3	Slope covered with 6-ft and greater concrete debris.	No	No
	5HF	14.4	3	11.4	Slope covered with 1 to 2-ft concrete debris.	No	No
R-C	~~6R~~	13.8	4.5	9.3	Nominal 1-ft riprap on slope.	No	No
R-D	~~6R~~	16.8	3	13.8	Nominal 1-ft riprap on slope.	No	No
R-E	~~6HR~~	14	1	13	Unknown drainage area. Located 20 feet north of 5/6 outfalls.	No	No
6	7	21.9	0	21.9	Silty sand with organics and gravel.	No	**Yes**
R-F	~~8R~~	18.9	10.2	8.7	Slope covered with 1 to 2-ft concrete debris and 1-inch gravel with sand. Near toe of bulkhead.	No	No
7	9	20	11	9	Slope covered with 6-inch concrete debris and 1-inch-minus gravel with sand. Near toe of bulkhead.	No	No
8	10	22	9	13	Slope covered with 6-inch concrete debris. Near toe of bulkhead.	No	No
R-G	~~11R~~	18.5	9	9.5	Silty gravel. Slope near toe of bulkhead.	No	No
R-H	~~12R~~	18.7	8.5	10.2	2-inch minus gravel with sand and silt. Slope near toe of bulkhead.	No	No
9	13	19.9	9.5	10.4	2-inch minus gravel with sand and silt. Slope near toe of bulkhead.	No	No
10	14	13.6	3.8	9.8	2-inch minus gravel with sand and silt. Slope near toe of bulkhead.	No	No
11	15	19.5	7.3	12.2	6-inch minus cobbles and concrete debris. Slope near toe of bulkhead.	No	No
12	16	14.9	5.4	9.5	6-inch concrete debris. Slope near toe of bulkhead.	No	No
R-I	~~17R~~	18.3	6.5	11.8	2-inch minus gravel with sand and silt. Slope near toe of bulkhead.	No	No
13	18	9.4	>3	<6.4	Discharge to water surface.	No	No
14	19	<4	Submerged	<4	Discharge beneath water surface.	No	No
15	20	11.5	0	11.5	Fine sandy silt with organics.	No	No
	21	7.5	0	7.5	Fine sandy silt with organics.	No	No
	22	6.5	0	6.5	Riprap	No	No
	23	7.5	0	7.5	Riprap	No	No

1 - TF=Sand Filter Effluent, R = Remnant, HF = High Flow Overflow
2 - NGVD Datum

17 ACTIVE
9 REMNANT

SCHN00152569

BRIDGEWATER GROUP, INC.

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rrieke@bridgeh2o.com

May 30, 2002

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Subject: Phase I RI Data Report Tables 2-1 and 2-2
Burgard Industrial Park

Dear Ms. Voss:

Enclosed please find three copies of Table 2-1 and Table 2-2 for the May 16, 2002, *Phase I Remedial Investigation Data Report* for the Burgard Industrial Park site in Portland, Oregon. These tables were inadvertently left out of the report copies that I sent you previously. Please call if you have any questions.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

Enclosure

cc: Mat Cusma/Schnitzer

Table 2-1
Chemical Concentrations in Soil Samples
Petroleum Hydrocarbons
Burgard Industrial Park
All results in mg/kg

Sample	Location	Sample Depth (ft)	Gasoline	Diesel	Heavy oil
CBS07	NW Pipe catch basin	0.5	20 U	50 U	2260
MW01-07	Former NW Oil Tanks	7.0	20 U	50 U	274
MW01-07D	Former NW Oil Tanks	7.0	20 U	25 U	210
MW01-12	Former NW Oil Tanks	12.0	20 U	25 U	208
MW01-18	Former NW Oil Tanks	18.0	20 U	50 U	100 U
MW01-18D	Former NW Oil Tanks	18.0	20 U	50 U	100 U
MW02-07	Shoreline, north end of site	7.0	20 U	50 U	100 U
MW02-12	Shoreline, north end of site	12.0	20 U	289	415
MW02-18	Shoreline, north end of site	18.0	20 U	50 U	388
MW03-07	Shoreline, middle of site	7.0	20 U	50 U	100 U
MW03-12	Shoreline, middle of site	12.0	20 U	50 U	100 U
MW03-12D	Shoreline, middle of site	12.0	20 U	50 U	100 U
MW03-18	Shoreline, middle of site	18.0	20 U	50 U	100 U
MW04-07	Shoreline, middle of site	7.0	20 U	117	343
MW04-12	Shoreline, middle of site	12.0	20 U	50 U	100 U
MW04-18	Shoreline, middle of site	18.0	20 U	50 U	100 U
MW05-08	Shoreline, southend of site	8.0	20 U	50 U	100 U
MW06-07	Outfall 1 plug area	7.0	20 U	50 U	100 U
MW06-12	Outfall 1 plug area	12.0	20 U	50 U	100 U
MW07-02	Southeast area	2.0	-	-	-
MW07-07	Southeast area	7.0	-	-	-
OFS07	Outfall 7 at north end of site	0.5	-	-	-
PP01-03	ASR staging area	3.0	20 U	89.9	146
PP01-06	ASR staging area	6.0	20 U	169	230
PP01-09	ASR staging area	9.0	20 U	25 U	112
PP01-13	ASR staging area	13.0	20 U	50 U	100 U
PP02-01.5	WMW compressor	1.5	20 U	50 U	100 U
PP02-05	WMW compressor	5.0	20 U	50 U	100 U
PP02-09	WMW compressor	9.0	-	-	-
PP02-13	WMW compressor	13.0	-	-	-
PP02-17	WMW compressor	17.0	-	-	-
PP03-01	Boydston oil storage area	1.0	20 U	50 U	100 U
PP03-05.5	Boydston oil storage area	5.5	20 U	50 U	100 U
PP04-01	PBM wash pad	1.0	20 U	50 U	1520
PP04-01A	PBM wash pad	1.0	-	-	-
PP04-05	PBM wash pad	5.0	20 U	50 U	100 U
PP04-13	PBM wash pad	13.0	20 U	50 U	100 U
PP05-06	Former NW Oil Tanks	6.0	20 U	50 U	100 U
PP05-09	Former NW Oil Tanks	9.0	20 U	50 U	100 U
PP05-13	Former NW Oil Tanks	13.0	20 U	50 U	100 U
PP05-17	Former NW Oil Tanks	17.0	20 U	50 U	100 U

U - Not detected at noted reporting limit
"-" - Not analyzed

Table 2-2
Chemical Concentrations in Soil Samples
Volatile Organic Compounds
Burgard Industrial Park
All results in mg/kg

Sample	Location	Sample Depth (ft)	cis-1,2,-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
CBS07	NW Pipe catch basin	0.5	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07	Former NW Oil Tanks	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07D	Former NW Oil Tanks	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-12	Former NW Oil Tanks	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18	Former NW Oil Tanks	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18D	Former NW Oil Tanks	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-07	Shoreline, north end of site	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-12	Shoreline, north end of site	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-18	Shoreline, north end of site	18.0	0.1 U	0.111	0.1 U	0.1 U
MW03-07	Shoreline, middle of site	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12	Shoreline, middle of site	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12D	Shoreline, middle of site	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-18	Shoreline, middle of site	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-07	Shoreline, middle of site	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-12	Shoreline, middle of site	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-18	Shoreline, middle of site	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW05-08	Shoreline, southend of site	8.0	0.1 U	0.1 U	0.1 U	0.1 U
MW06-07	Outfall 1 plug area	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW06-12	Outfall 1 plug area	12.0	-	-	-	-
MW07-02	Southeast area	2.0	0.1 U	0.1 U	0.1 U	0.1 U
MW07-07	Southeast area	7.0	0.1 U	0.1 U	0.1 U	0.1 U
OFS07	Outfall 7 at north end of site	0.5	-	-	-	-
PP01-03	ASR staging area	3.0	0.1 U	0.1 U	0.1 U	0.1 U
PP01-06	ASR staging area	6.0	0.1 U	0.1 U	0.1 U	0.1 U
PP01-09	ASR staging area	9.0	-	-	-	-
PP01-13	ASR staging area	13.0	-	-	-	-
PP02-01.5	WMW compressor	1.5	-	-	-	-
PP02-05	WMW compressor	5.0	-	-	-	-
PP02-09	WMW compressor	9.0	-	-	-	-
PP02-13	WMW compressor	13.0	-	-	-	-
PP02-17	WMW compressor	17.0	-	-	-	-
PP03-01	Boydston oil storage area	1.0	-	-	-	-
PP03-05.5	Boydston oil storage area	5.5	-	-	-	-
PP04-01	PBM wash pad	1.0	-	-	-	-
PP04-01A	PBM wash pad	1.0	-	-	-	-
PP04-05	PBM wash pad	5.0	-	-	-	-
PP04-13	PBM wash pad	13.0	-	-	-	-
PP05-06	Former NW Oil Tanks	6.0	-	-	-	-
PP05-09	Former NW Oil Tanks	9.0	-	-	-	-
PP05-13	Former NW Oil Tanks	13.0	-	-	-	-
PP05-17	Former NW Oil Tanks	17.0	-	-	-	-
DEQ Sediment Screening Level Value (Toxicity)						
DEQ Sediment Screening Level Value (Bioaccum)			5.8	0.28	0.14	0.03
McDonald Consensus TECs						
McDonald Consensus PECs						
NOAA SQRT TEL						
EPA PRG (industrial)			150	19	6.1	0.8

U - Not detected at noted reporting limit
"-" - Not analyzed
All detected VOCs shown in table. All others not detected.

BRIDGEWATER GROUP, INC.

4500 SW Kruse Way; Suite 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

May 20, 2002

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Subject: Phase I RI Data Report Figure 1-2
Burgard Industrial Park

Dear Ms. Voss:

Enclosed please find three copies (two GBC-punched and one unpunched) of Figure 1-2 for the May 16, 2002, *Phase I Remedial Investigation Data Report* for the Burgard Industrial Park site in Portland, Oregon. This figure was inadvertently left out of the report copies that I sent you last week. Please call if you have any questions.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

cc: Mat Cusma/Schnitzer

Boundary Locaters

8124 S.E. Taylor Ct.
Portland, Oregon 97215
Office (503) 261-0272

April 5, 2002

Matt Cusma
Schnitzer Steel Industries, Inc.
PO Box. 10047
Portland, Oregon 97296-0047

Matt,

Here is the data that you requested. Please call me if you have any questions.
CB = Catch Basin shot at NE corner
PP = Push Probe

NORTHING	EASTING	ELEV.	DESCRIPTION
716946.270	7618239.003	27.935	PP5
715664.480	7621837.742	37.700	CB7
715840.590	7621911.990	34.211	CB6
715912.267	7621745.637	34.420	CB4
715975.429	7621816.378	36.788	PP4
715965.835	7621792.953	36.535	CB5
716034.069	7621743.211	34.903	CB3
716169.967	7621701.291	34.392	PP3
716052.122	7621502.676	33.831	CB2
716210.306	7621433.014	31.312	CB1
716292.042	7621357.068	31.559	PP2

These are the distances down from top of well cover to top of casing. All measurements are on the north side of the well casing.

MW-1 -0.38 FEET
MW-2 -0.41 FEET
MW-3 -0.33 FEET
MW-4 -0.37 FEET
MW-5 -0.46 FEET
MW-6 -0.49 FEET
MW-7 -0.41 FEET

COPY

Joe H Ferguson, PLS

BRIDGEWATER GROUP, INC.

4500 SW Kruse Way; Suite 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

April 10, 2002

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Subject: Quarterly Status Report
Burgard Industrial Park RI Project

This letter presents the Quarterly Status Report for the period of January 2002 through March 2002 for the Burgard Industrial Park RI project in Portland, Oregon.

Work Completed January 2002 Through March 2002

- Performed outfall assessment and prepared Outfall Sampling and Analysis Plan. Submitted Outfall Sampling and Analysis Plan to DEQ on January 11, 2002.
- Completed Phase I RI groundwater monitoring well drilling, construction, and development.
- Surveyed elevation and location of Phase I RI groundwater monitoring wells, push probes, and catch basin samples.
- Sampled Phase I groundwater monitoring wells.
- Sampled catch basins and outfalls in accordance with Phase I RI Work Plan.
- Received laboratory analyses results and began preparing Phase I RI data report.
- Continued alternative assessment for replacement/repair of Outfall 1.

Activities Planned for April 2002 Through June 2002

- Resample groundwater monitoring wells MW-2 through MW-7 for dissolved metals.
- Compile and review laboratory analysis results for Phase I RI.
- Submit Phase I RI data report to DEQ.
- Identify candidate replacement/repair approach to Outfall 1.

Sampling, Test Results, and Other Data Generated During January 2002 Through March 2002

All sampling, test results, and other data generated during January 2002 Through March 2002 will be provided in the Phase I RI data report.

Problems Experienced During January 2002 Through March 2002

No problems were encountered during January 2002 Through March 2002.

Please call is you have any questions.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

cc: Mat Cusma/Schnitzer

Table
Chemical Concentrations in Soil Samples - Burgard Industrial Park
All results in mg/kg

Sample	Location	Date	Sample Depth (ft)	Gasoline	Diesel	Heavy oil	cis-1,2,-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
CBS07	Upgradient catch basin - NW Pb	1/28/2002	0.5	20 U	50 U	2260	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07	Former NW Oil Tanks	1/3/2002	7.0	20 U	50 U	274	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07D	Former NW Oil Tanks	1/3/2002	7.0	20 U	25 U	210	0.1 U	0.1 U	0.1 U	0.1 U
MW01-12	Former NW Oil Tanks	1/3/2002	12.0	20 U	25 U	208	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18	Former NW Oil Tanks	1/3/2002	18.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18D	Former NW Oil Tanks	1/3/2002	18.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW02-07	Shoreline, north end of site	1/4/2002	7.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW02-12	Shoreline, north end of site	1/4/2002	12.0	20 U	289	415	0.1 U	0.1 U	0.1 U	0.1 U
MW02-18	Shoreline, north end of site	1/4/2002	18.0	20 U	50 U	388	0.1 U	0.111	0.1 U	0.1 U
MW03-07	Shoreline, middle of site	1/4/2002	7.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12	Shoreline, middle of site	1/4/2002	12.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12D	Shoreline, middle of site	1/4/2002	12.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW03-18	Shoreline, middle of site	1/4/2002	18.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW04-07	Shoreline, middle of site	1/5/2002	7.0	20 U	117	343	0.1 U	0.1 U	0.1 U	0.1 U
MW04-12	Shoreline, middle of site	1/5/2002	12.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW04-18	Shoreline, middle of site	1/5/2002	18.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW05-08	Shoreline, southend of site	1/13/2002	8.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW06-07	Outfall 1 plug area	1/5/2002	7.0	20 U	50 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U
MW06-12	Outfall 1 plug area	1/5/2002	12.0	20 U	50 U	100 U	-	-	-	-
MW07-02	Southeast area	1/3/2002	2.0	20 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U
MW07-07	Southeast area	1/3/2002	7.0	20 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U
OFS07	Outfall 7 at north end of site	1/28/2002	0.5	-	-	-	-	-	-	-
PP01-03	ASR staging area	12/18/2001	3.0	20 U	89.9	148	0.1 U	0.1 U	0.1 U	0.1 U
PP01-06	ASR staging area	12/18/2001	6.0	20 U	169	230	0.1 U	0.1 U	0.1 U	0.1 U
PP01-09	ASR staging area	12/18/2001	9.0	20 U	25 U	112	-	-	-	-
PP01-13	ASR staging area	12/18/2001	13.0	20 U	50 U	100 U	-	-	-	-
PP02-01.5	WMW compressor	12/18/2001	1.5	20 U	50 U	100 U	-	-	-	-
PP02-05	WMW compressor	12/18/2001	5.0	20 U	50 U	100 U	-	-	-	-
PP02-09	WMW compressor	12/18/2002	9.0	-	-	-	-	-	-	-
PP02-13	WMW compressor	12/18/2002	13.0	-	-	-	-	-	-	-
PP02-17	WMW compressor	12/18/2002	17.0	-	-	-	-	-	-	-
PP03-01	Boydston oil storage area	12/18/2001	1.0	20 U	50 U	100 U	-	-	-	-
PP03-05.5	Boydston oil storage area	12/18/2001	5.5	20 U	50 U	100 U	-	-	-	-
PP04-01	PBM wash pad	1/28/2002	1.0	20 U	50 U	1520	-	-	-	-
PP04-01A	PBM wash pad	2/18/2002	1.0	-	-	-	-	-	-	-
PP04-05	PBM wash pad	1/28/2002	5.0	20 U	50 U	100 U	-	-	-	-
PP04-13	PBM wash pad	12/18/2001	13.0	20 U	50 U	100 U	-	-	-	-
PP05-06	Former NW Oil Tanks	12/10/2001	6.0	20 U	50 U	100 U	-	-	-	-

Sample	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2,4-Methylphenol
CBS07	0.181	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.0605	0.301	0.067 U	-
MW01-07	0.0268 U	0.0268 U	0.0268 U	0.036	0.0955	0.0715	0.139	0.0442	0.0528	0.0268 U	0.041	0.0268 U	0.0893	-
MW01-07D	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0404	0.0507	0.0485	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0303	-
MW01-12	0.0268 U	0.0268 U	0.0268 U	0.0282	0.0546	0.0347	0.0590	0.0268 U	0.0325	0.0268 U	0.0339	0.0268 U	0.0389	-
MW01-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-18D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02-07	0.33 U	0.33 U	0.33 U	1.86	1.18	0.679	0.644	1.03	1.81	0.33 U	2.6	0.33 U	0.613	0.33 U
MW02-12	0.33 U	0.33 U	0.33 U	0.33 U	0.504	0.334	0.414	0.33 U	0.444	0.33 U	0.671	0.33 U	0.332	0.33 U
MW02-18	0.33 U	0.33 U	0.575	2.14	2.46	2.2	1.73	1.47	2.73	0.353	4.88	0.33 U	1.47	0.33 U
MW03-07	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW03-12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW03-12D	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW03-18	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW04-07	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW04-12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW04-18	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW05-08	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW06-07	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW06-12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
MW07-02	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	0.0268 U	-
MW07-07	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	-
OFS07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01-03	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	2.25	1.65 U	1.65 U	1.65 U
PP01-06	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.756	0.66 U	0.66 U	1.65
PP01-09	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
PP01-13	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
PP02-01.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02-05	0.0134 U	0.0134 U	0.0134 U	0.104	0.161	0.118	0.159	0.105	0.131	0.0264	0.18	0.0134 U	0.135	-
PP02-09	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	-
PP02-13	0.0134 U	0.0134 U	0.0134 U	0.0154	0.022	0.0134	0.0232	0.0157	0.0194	0.0134 U	0.043	0.0134 U	0.0158	-
PP02-17	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	-
PP03-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03-05.5	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	-
PP04-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04-01A	0.134 U	0.134 U	0.134 U	0.48	0.742	0.73	0.975	0.684	0.602	0.187	0.782	0.134 U	0.733	-
PP04-05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample	Naphthalene	Phenanthrene	Pyrene	LPAHs	HPAHs	Total PAHs	PCBs	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
CBS07	0.335 U	0.491	0.08	1.208	0.439	1.65	-	3.48	8.6	271	2.95	894	331	369	0.431	106	2070
MW01-07	0.0268 U	0.0268 U	0.0863	0.060	0.849	0.73	-	-	-	-	-	-	-	-	-	-	-
MW01-07D	0.0268 U	0.0268 U	0.0323	0.08	0.269	0.36	-	-	-	-	-	-	-	-	-	-	-
MW01-12	0.0268 U	0.0268 U	0.0593	0.08	0.369	0.45	-	-	-	-	-	-	-	-	-	-	-
MW01-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-18D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02-07	0.33 U	0.383	2.7	1.208	13.38	14.6	-	0.5 U	2.71	89.6	0.5 U	15.5	20.1	11.2	0.1 U	20	66.8
MW02-12	0.33 U	0.33 U	0.857	0.99	4.051	5.04	0.922	0.944	3.42	142	0.5 U	22	133	529	0.1 U	26	432
MW02-18	0.33 U	3.13	5.04	4.365	24.47	28.8	0.466	1.43	6.83	182	0.808	38.5	84	300	0.1 U	31	543
MW03-07	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	0.067 U	0.5 U	2.04	95.7	0.5 U	13.5	13.3	2.45	0.1 U	18.5	35.6
MW03-12	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	4.25	209	0.5 U	20.7	21.3	4.39	0.1 U	21.7	60.3
MW03-12D	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	3.43	191	0.5 U	18	19	3.92	0.1 U	20.5	49.5
MW03-18	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	2.72	92.5	0.5 U	13.8	14.8	3.21	0.1 U	18	45.5
MW04-07	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	0.067 U	0.5 U	2.76	106	0.5 U	20.1	28.8	21.4	0.278	29.7	106
MW04-12	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	2.74	89.7	0.5 U	13.2	18.8	4.31	0.1 U	17.9	48.3
MW04-18	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	2.72	92.2	0.5 U	16.3	16	2.9	0.1 U	21	44.4
MW05-08	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	0.067 U	0.5 U	2.44	70.6	0.5 U	11.3	13.9	4.38	0.1 U	15.4	46.5
MW06-07	0.2 U	0.33 U	0.33 U	0.925	1.65	2.58	-	0.5 U	3.56	87.6	0.5 U	17.9	15.6	2.85	0.1 U	25.6	46
MW06-12	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	0.067 U	0.5 U	2.73	104	0.5 U	47.2	29.5	7.01	0.1 U	32	67.4
MW07-02	0.0268 U	0.0268 U	0.0268 U	0.08	0.134	0.21	0.067 U	0.5 U	3.93	106	0.5 U	15.7	21.5	366	0.1 U	16.6	69.2
MW07-07	0.0134 U	0.0134 U	0.0134 U	0.04	0.067	0.11	0.067 U	0.5 U	3.64	105	0.5 U	13.1	16.4	8.22	0.1 U	14.7	54.7
OFS07	-	-	-	-	-	-	-	20	11.8	184	3.19	117	660	493	0.769	78.9	691
PP01-03	1.65 U	2.74	2.68	8.865	11.53	18.4	0.067 U	3.8	7.59	155	0.5 U	27.2	112	131	0.232	33.9	995
PP01-06	0.66 U	0.66 U	0.998	1.98	4.402	6.38	0.067 U	0.5 U	4.01	114	0.5 U	13.9	19	18.1	0.13	16	73
PP01-09	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	-	-	-	-	-	-	-	-	-	-	-
PP01-13	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	-	-	-	-	-	-	-	-	-	-	-
PP02-01.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02-05	0.0134 U	0.0323	0.276	0.066	1.433	1.5	0.067 U	-	-	-	-	-	-	-	-	-	-
PP02-09	0.0134 U	0.0134 U	0.0134 U	0.04	0.067	0.11	-	-	-	-	-	-	-	-	-	-	-
PP02-13	0.0134 U	0.0307	0.0572	0.064	0.232	0.3	-	-	-	-	-	-	-	-	-	-	-
PP02-17	0.0134 U	0.0134 U	0.0134 U	0.04	0.067	0.11	-	-	-	-	-	-	-	-	-	-	-
PP03-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03-05.5	0.0134 U	0.0134 U	0.0134 U	0.04	0.067	0.11	0.067 U	-	-	-	-	-	-	-	-	-	-
PP04-01	-	-	-	-	-	-	-	-	5.18	163	2.47	71.4	177	722	0.811	33.5	775
PP04-01A	0.134 U	0.295	0.952	0.63	5.957	7.59	-	-	-	-	-	-	-	-	-	-	-
PP04-05	-	-	-	-	-	-	-	0.5 U	3.13	89	0.5 U	9.15	15.9	6.31	0.1 U	14	48.3
PP04-13	-	-	-	-	-	-	-	0.5 U	2.48	80	0.5 U	7.33	13	5.77	0.1 U	11.1	48.5
PP05-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table
Chemical Concentrations in Groundwater Samples
Burgard Industrial Park
All results in µg/l

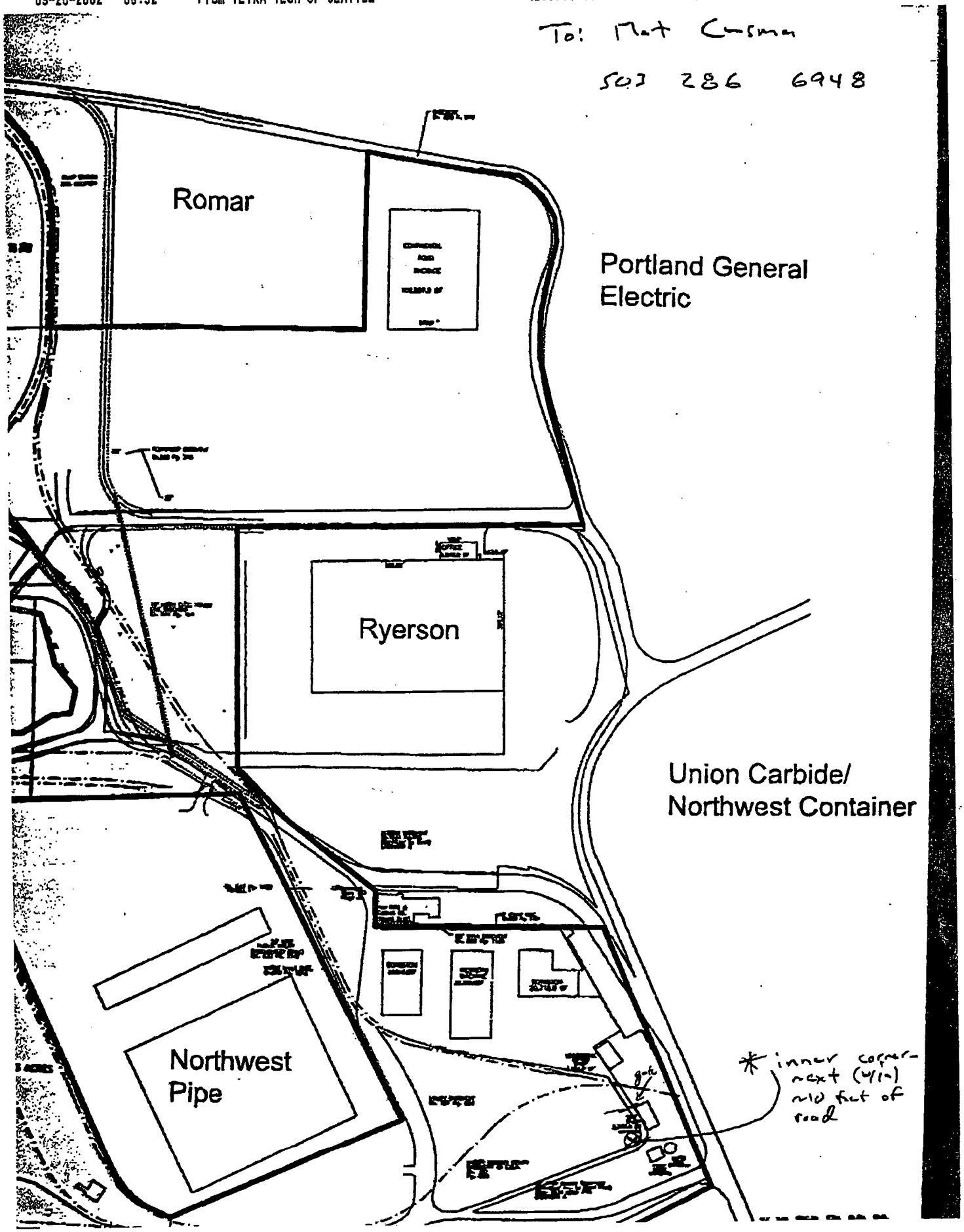
Probe/Well	Date	Gasoline	Diesel	Heavy oil	cis-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	2,4-Methylphenol	Naphthalene	Phenanthrene	Pyrene	PCBs	Total Antimony	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Copper	Total Lead	Total Mercury	Total Nickel	Total Zinc
MW01	1/28/2002	250 U	630 U	630 U	9.13	32.7	1 U	4.5	1.23	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	-	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
MW02	1/28/2002	250 U	630 U	630 U	2.78	6.68	1 U	8.06	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	0.5 U	1.0 U	1.1	23.3	1.0 U	2.0	2.0 U	1.0 U	0.2 U	2.0 U	10.6
MW03	1/27/2002	250 U	630 U	630 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	18.4	2 U	5 U	5 U	-	1.0 U	30.8	148.0	1.0 U	1.8	2.0 U	1.0 U	0.2	5.8	7.1
MW04	1/27/2002	250 U	630 U	630 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-	1.0 U	1.9	47.2	1.0 U	1.3	2.0 U	1.0 U	0.2 U	12.3	5.2
MW05	1/27/2002	250 U	630 U	630 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-	1.0 U	1.0 U	13.0	1.0 U	1.8	2.3	1.0 U	0.2 U	2.3	11.2
MW06	1/28/2002	250 U	630 U	630 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-	1.0 U	1.0 U	33.1	1.0 U	1.6	2.0 U	1.0 U	0.2 U	8.8	8.8
MW07	1/28/2002	-	-	-	1 U	1.91	1 U	1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	-	0.1 U	0.1 U	0.1 U	-	1.0 U	1.2	64.7	1.0 U	1.8	2.0 U	1.0 U	0.2 U	4.9	5.0 U
PP02	12/18/2001	-	-	-	1 U	1 U	1 U	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03	12/18/2001	-	-	-	1 U	1 U	1 U	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04	12/18/2001	-	-	-	1 U	1 U	1.23	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05	12/18/2001	-	-	-	1 U	1 U	1 U	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW01	1/28/2002	-	-	-	1 U	1 U	1 U	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-	-	-	-	-	-	-	-	-	-	-
PW03	1/28/2002	-	-	-	1 U	1.67	1 U	1.7	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-	-	-	-	-	-	-	-	-	-	-
PW06	1/27/2002	-	-	-	1 U	1 U	1 U	1 U	1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-	-	-	-	-	-	-	-	-	-	-
DEQ Level II Surface Water SLV										520			0.027	0.014						6.16			620	6.3			1500	150		2.2	0.21	9	2.5	0.77	52	120

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00152585

To: Mat Cusman

503 286 6948



BRIDGEWATER GROUP, INC.

4500 SW Kruse Way; Suite 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

January 10, 2002

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Subject: Quarterly Status Report
Burgard Industrial Park RI Project

This letter presents the Quarterly Status Report for the period of October 2001 through December 2001 for the Burgard Industrial Park RI project in Portland, Oregon.

Work Completed October 2001 Through December 2001

- Submitted Phase I RI Work Plan on October 29, 2001.
- Completed Phase I RI push probe sampling.
- Continued alternative assessment for replacement/repair of Outfall 1.

Activities Planned for January 2002 Through March 2002

- Perform Outfall Assessment and prepare Outfall SAP.
- Complete Phase I RI field investigations.
- Receive and compile, and analyze laboratory analysis results for Phase I RI.
- Identify candidate replacement/repair approach to Outfall 1.

Sampling, Test Results, and Other Data Generated During October 2001 Through December 2001

No sampling, test results, and other data were generated during October 2001 through December 2001.

Problems Experienced During October 2001 Through December 2001

No problems were encountered during October 2001 through December 2001.

Please call is you have any questions.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

cc: Mat Cusma/Schnitzer

SCHNITZER STEEL PRODUCTS CO.

12005 N Burgard Road, Portland, Oregon 97203
P.O. Box 10047, Portland, Oregon 97296-0047
(503) 224-9900 FAX (503) 286-6948

January 8, 2002

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

SUBJECT: Stormwater Outfall 1 Repair Status, Burgard Industrial Park

Dear Alicia,

As you know, we have been pursuing repair of a breached stormwater pipe at our site that discharges through Outfall 1. Unfortunately, this project has thus far proven much more complex that originally anticipated.

Initially, we were confident that we could either repair the existing stormwater line by installing a sleeve, or reroute the stormwater flow from the broken pipe into the drainage system for an adjacent area. However, as each of these options were investigated further, significant obstacles were encountered. Our inspection of the existing stormwater line revealed that the line is completely plugged and has settled such that it exhibits back-fall in several locations. In addition, other stormwater pipes in the immediate vicinity of the broken line either drain back into the same pipe, or are hopelessly undersized to handle the drainage area served by Outfall 1.

As a result of these findings, our approach to the repair of the stormwater line has evolved. Currently, we are assessing the option of installing a lift station that would pump the stormwater from the pipe through an above ground pressure line installed along the southern property boundary. The line would likely discharge into a settling basin and be passed through a treatment unit prior to discharge at Outfall 1.

At present, we are designing the system to estimate schedule and cost. Because design of the lift station and treatment unit depend on the flowrates that could occur in the system, we need to determine how much stormwater the line is receiving from Northwest Pipe's facility. A large portion of the flow through this system comes from Northwest Pipe, including, we understand, interior floor drains. We have attempted to contact them to obtain either the information or access to the site for our own assessment, but have been unsuccessful (apparently due to holiday schedules).

We will do our best to proceed with the repair of the drainage system without undue delay, and we will keep you informed of our progress. If you have any questions or would like additional information, please do not hesitate to call me at (503) 286-6944.

Sincerely,

SCHNITZER STEEL PRODUCTS CO.

MATHEW J. CUSMA
Environmental Administrator

BRIDGEWATER GROUP, INC.

4500 SW KRUSE WAY; SUITE 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

November 28, 2001

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Dear Ms. Voss:

Enclosed please find two copies of the September 5, 2001, *Hazardous Site Health and Safety Plan* for the Burgard Industrial Park site. The plan has been prepared by Tetra Tech as they will be performing the field oversight work for the Phase I remedial investigation.

Please call if you have any questions and thank you for your help on this project.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

Enclosure

cc: Mat Cusma, Schnitzer w/enclosure

TETRA TECH, INC.
HAZARDOUS SITE
HEALTH AND SAFETY PLAN

Site Name: Burgard Industrial Park Project Number: 11907-01

KEY PERSONNEL AND RESPONSIBILITIES

Project Manager: Gerald J. Portele

Site Manager: John Virgin

Site Safety Officer: John Virgin

Other: _____

Plan Prepared by: John Virgin Date: August 30, 2001

Plan Approved by: Gerald J. Portele Date: September 5, 2001

INCIDENT/SITE DESCRIPTION

Type: Spill ( ) Fire ( ) HW Site ( ) Other Metals Recycling Facility/Industrial Park

Physical Description: Burgard Industrial Park

Location: 12005 North Burgard Road, Portland, Oregon

Size: Approximately 200 acres

History: Northwest (Time Oil) from approximately 1938-1941, petroleum hydrocarbon release; Shipyard facilities from 1941-1945, Manufacturing/warehouse/light industrial since 1945, potential hazardous materials releases including solvents, paints, hydrocarbons.

SCHN00152612

Status: Active (X) Inactive ( ) Not Applicable ( )

Surrounding Environment: Industrial operations.

Surrounding Population/Buildings/Homes: Primarily light industrial, warehouse, manufacturing, commercial, and retail businesses.

Topography: Relatively level/flat.

Receiving Waters: Williamette River

Site Plan/Sketch Attached: Yes (X) No ( )

Background Material Attached: Yes ( ) No (X)

WORK OBJECTIVES

Investigate the features of concern, including: Former Northwest Oil Company Tanks; Former Sanitary Shipyard Sewer and Storm Water Discharges; Former Shipyard Shipways;Automobile Shredder Residue; Southeast Area; and Southern Storm Drain Line. Investigation of each FOC will focus on soil and groundwater pathways specific to the feature.

HAZARD EVALUATION

Potential Hazard Level: High ( ) Moderate ( ) Low (X) Unknown ( )

Potentally Contaminated Media: Groundwater (X) Surface Water ( ) Soil (X) Sediment ( )

Known or Suspected Contaminants of Concern: Petroleum hydrocarbons, polycyclic aromatic hydrocarbons, metals, volatile and semivolatile organic compounds; and polychlorinated biphenyls.

Characteristics: Corrosive ( ) Ignitable (X) Toxic (X) Reactive ( )

Volatile (X) Radioactive ( ) Biological Agent ( )

Exposure Routes: Inhalation (X) Ingestion (X) Contact (X) Radiation ( )

SCHN00152613

Toxicity:

Chemical Name:		TLV/PEL	IDLH
	Gasoline range TPH	300 ppm	1100 ppm
	Benzene	0.5 ppm	500 ppm
	Ethylbenzene	100 ppm	800 ppm
	Toluene	50 ppm	500 ppm
	Xylenes	100 ppm	900 ppm

Other Toxicity Information: See Table 1, attached.

Acute Exposure Symptoms: See Table 1, attached.

Other Site/Activity Hazards: See Table 2, attached.

AIR MONITORING

Protocol: Screen the breathing zone using a photoionization detector (PID) at regular intervals.

Instrument Readings:

$\%O_2$: _____ %LEL: _____

Radioactivity: _____

SCHN00152614

Total Organic Vapors: _____

Other: _____

If No Site Readings, Why? _____

_____

PERSONNEL PROTECTION:

Level of Protection: A ( ) B ( ) C ( ) D (X) (modified)

Respiratory Protection: SCBA ( ) Airline ( ) Air-Purifying (X), if necessary None ( )

If Air Purifying: Canister ( ) Cartridge (X)

Canister/Cartridge Type: MSA Super Cartridge

Protective Clothing: Steel-toed boots, Hard Hat, Nitrile Gloves.

_____

Justification: Low level of environmental concerns onsite.

_____

Change in Level of Protection: Upgraded (X) Downgraded ( )

Up or Downgraded to: A ( ) B ( ) C (X) D ( )

Reason: If PID readings exceed 5 units above background for a period of 5 minutes, upgrade PPE to Level C.

_____

Actual Changes Made: _____

_____

Mandatory Safety Equipment (all jobs): First Aid Kit (X) CPR Mask/kit (X)

SCHN00152615

DECONTAMINATION/SITE CONTROL PROCEDURES

Sketch of Site Control Zones Attached: Yes ( ) No (X)

Decontamination Equipment: Distilled water, buckets, brushes, alconox.

Personnel Decontamination Procedures: Remove disposable gloves, wash with soap and water.

Equipment Decontamination Procedures: Wash in tap water/alconox wash, rinse with tap water then rinse with distilled water.

EMERGENCY INFORAMTION

Local/Site Resources:

	Name	Phone	Notified Yes	Notified No
Fire	911		( )	(X)
Police	911		( )	(X)
Ambulance	911		( )	(X)
Hospital	911		( )	(X)
Site Phone	Unknown. Onsite cellular phone - (425) 210-5312		( )	( )
Nearest Phone	Same as above		( )	( )
Other			( )	( )

Directions to Hospital Attached: Yes (X) No ( )

Corporate Resources:

	Name	Phone
Project Manager	Gerald J. Portele	(425) 673-3676
Site Manager	John Virgin	(425) 673-3674
Health and Safety Officer	John Virgin	(425) 673-3665
Corporate Health and Safety Manager	Ms. Chris McClain	(818) 449-6400 Ext. 102
Corporate Medical Consultant	Dr. William White	(818) 355-3435

Other Resources:

	Name	Phone
Client Contact	Mathew Cusma - Schnitzer Steel Industries	(503) 286-6944
State Agency	Oregon Department of Environmental Quality	(503) 229 2696
County Agency	Multnomah County Public Health Department	(503) 988-3674
Regional EPA	U. S. EPA Region 10	(206) 553-1200

EPA-ERT	201-321-6660
Chemtrec	800-424-9300
Centers for Disease	404-329-3311 (day) 404-329-2889 (night)
National Response Center	800-424-8802
Superfund/RCRA Hotline	800-424-9346
TSCA Hotline	800-424-9065
National Pesticide Info Serv	800-845-7633
Poison Control Center	800-732-6985
Bureau of Alcohol, Tobacco, and Firearms (Explosives)	800-424-9555

TABLE 1. CHEMICAL HAZARDS SUMMARY

Hazard	Health Hazard Rating At This Site	Route of Entry	Symptoms of Overexposure	First Aid	Occupational Health Standard OSHA PEL[a]
Total petroleum hydrocarbons	Low: due to expected concentrations.	Inhalation, ingestion, contact	Dizziness, drowsiness, headaches, nausea, irritation of eyes, nose, and throat.	Eye contact: irrigate immediately. Skin contact: wash with soap immediately. Inhalation: move to fresh air. Perform artificial respiration as required. Ingestion: get medical attention immediately.	500 mg/m3
Benzene	Low: due to expected concentrations. Benzene is a carcinogen.	Inhalation, ingestion, contact	Inhalation/ingestion: headache, dizziness, nausea, convulsions, coma, and possibly death. Contact: eye and skin irritation.	Eye contact: irrigate immediately. Skin contact: wash with soap and water. Inhalation: move immediately to fresh air. Perform artificial respiration as required. Ingestion: seek medical attention. Do not induce vomiting.	1 ppm
Toluene	Low: due to expected concentrations.	Inhalation, ingestion, contact	Inhalation/ingestion: headache, dizziness, fatigue, muscular weakness, drowsiness, incoordination, skin paresthesia, collapse, and coma.	Eye contact: irrigate immediately. Skin contact: wash with soap and water. Inhalation: move immediately to fresh air. Perform artificial respiration as required. Ingestion: seek medical attention. Do not induce vomiting.	200 ppm
Ethylbenzene	Low: due to expected concentrations.	Inhalation, ingestion, contact	Inhalation/ingestion: headaches, narcosis, coma, kidney and liver disease, chronic respiratory disease, skin disease. Contact: eye, skin, an mucous membrane irritation	Eye contact: irrigate immediately. Skin contact: wash with soap and water. Inhalation: move immediately to fresh air. Perform artificial respiration as required. Ingestion: seek medical attention. Do not induce vomiting.	100 ppm
Total Xylenes	Low: due to expected concentrations.	Inhalation, ingestion, contact	Inhalation/ingestion: dizziness, staggering, drowsiness, unconsciousness, nausea, vomiting, and abdominal pain. Contact: skin, eye, nose, and throat irritation.	Eye contact: irrigate immediately. Skin contact: wash with soap and water. Inhalation: move immediately to fresh air. Perform artificial respiration as required. Ingestion: seek medical attention. Do not induce vomiting.	100 ppm
Polycyclic aromatic hydrocarbons	Low: due to expected concentrations.	Inhalation, ingestion, contact	Dermatitis, bronchitis	Eye contact: irrigate immediately. Skin contact: wash with soap and water. Inhalation: move immediately to fresh air. Perform artificial respiration as required. Ingestion: seek medical attention. Do not induce vomiting.	0.2 ppm[b]

[a] Occupational Safety and Health Administration permissible exposure limits, based on 8 hour time weighted averages.

[b] Based on values for coal tar pitch volatiles.

TABLE 2. PHYSICAL HAZARDS SUMMARY

Task	Physical Hazards	Hazard Control Procedures
■ Initial Site Reconnaissance ■ Sampling Activities ■ Boring Abandonment	■ Tripping, falling, and slipping	■ Be aware of your surroundings at all times
■ Boring Installation	■ Tripping, falling, and slipping; ■ Disturbance of underground utilities; ■ Accidental contact with overhead utility lines; ■ Projectiles or heavy falling objects; ■ Heavy equipment; ■ Noise	■ Be aware of your surroundings at all times; ■ Locate and mark all underground utility lines in the work area prior to beginning work; ■ Keep the mast of the direct-push rig at least 20 feet away from overhead utility lines. ■ All personnel onsite are required to wear hard hats, safety glasses and steel-toed boots; ■ All personnel onsite are required to know how to turn off equipment in case of an emergency and are to remain constantly aware of the location of equipment; ■ All personnel onsite are required to wear hearing protection while working near operating heavy equipment.
■ Soil and Groundwater Sampling	■ Tripping, falling, and slipping; ■ Projectiles or heavy falling objects; ■ Heavy equipment; ■ Noise	■ Be aware of your surroundings at all times; ■ All personnel onsite are required to wear hard hats, safety glasses and steel-toed boots; ■ All personnel onsite are required to know how to turn off drilling equipment in case of an emergency and are to remain constantly aware of the location of all heavy equipment; ■ All personnel onsite are required to wear hearing protection while working near operating heavy equipment.
■ Waste Transfer	■ Tripping, falling, and slipping; ■ Projectiles or heavy falling objects; ■ Waste transfer contact and splash hazards	■ Be aware of your surroundings at all times; ■ All personnel onsite are required to wear hard hats, safety glasses and steel-toed boots; ■ Avoid contact with wastes and wear appropriate personal protective equipment.

Direction	Distance
1. Start out going South on N BURGARD RD towards N SEVER RD by turning right.	0.3 miles
2. N BURGARD RD becomes N LOMBARD ST.	1.1 miles
3. Turn RIGHT onto N NEW YORK AVE.	0.0 miles
4. Turn LEFT onto N IVANHOE ST.	0.2 miles
5. Turn RIGHT onto N PHILADELPHIA AVE/US -30 BYP.	0.1 miles
6. N PHILADELPHIA AVE/US -30 BYP becomes ST JOHNS BRIDGE/US-30 BYP.	0.7 miles
7. Turn SLIGHT LEFT onto US -30 BYP.	0.6 miles
8. Turn SLIGHT RIGHT onto NW ST HELENS RD.	3.5 miles
9. NW ST HELENS RD becomes NW NICOLAI ST/US -30.	0.1 miles
10. Turn SLIGHT RIGHT onto NW WARD WAY.	0.1 miles
11. NW WARD WAY becomes NW VAUGHN ST.	0.2 miles
12. Turn RIGHT onto NW 26TH AVE.	0.2 miles
13. Turn LEFT onto NW RALEIGH ST.	0.3 miles
14. Turn RIGHT onto NW 23RD AVE.	0.0 miles
15. Turn LEFT onto NW QUIMBY ST.	0.1 miles
16. Turn RIGHT onto NW 22ND AVE.	0.2 miles

Total distance:	7.8 miles
Estimated time:	24 minutes

Driving Directions provided by MapQuest. QWEST Dex does not guarantee their accuracy or drivability.

^ back to top

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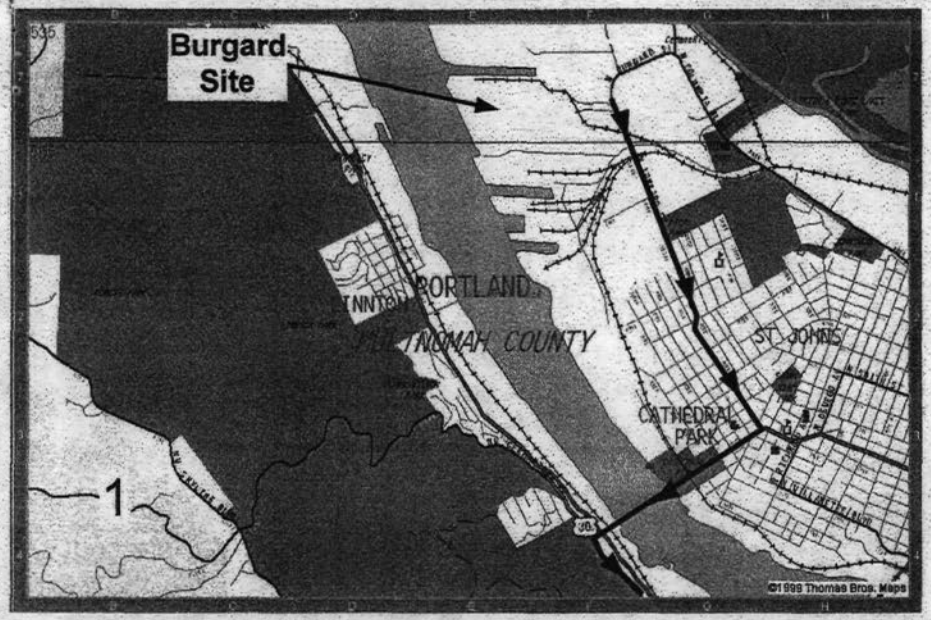
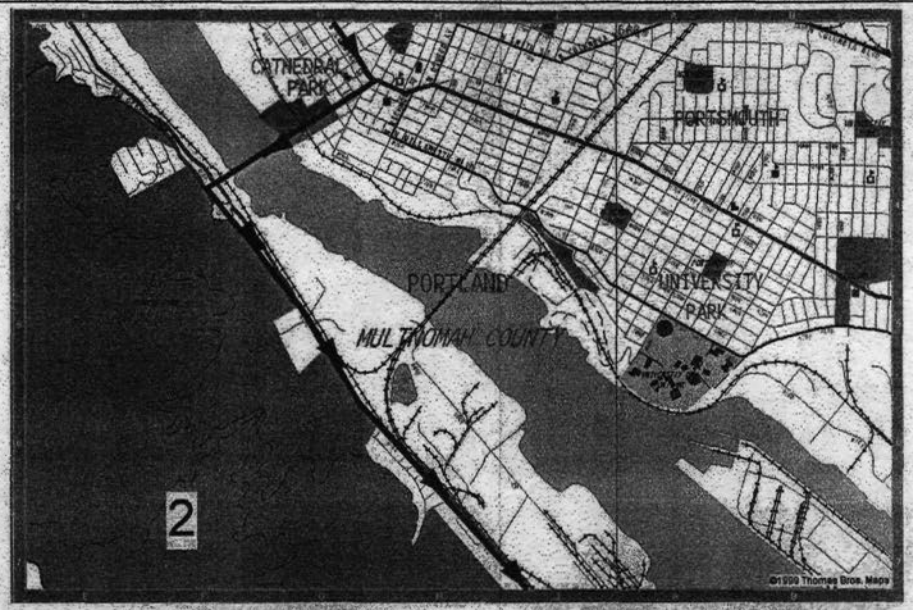
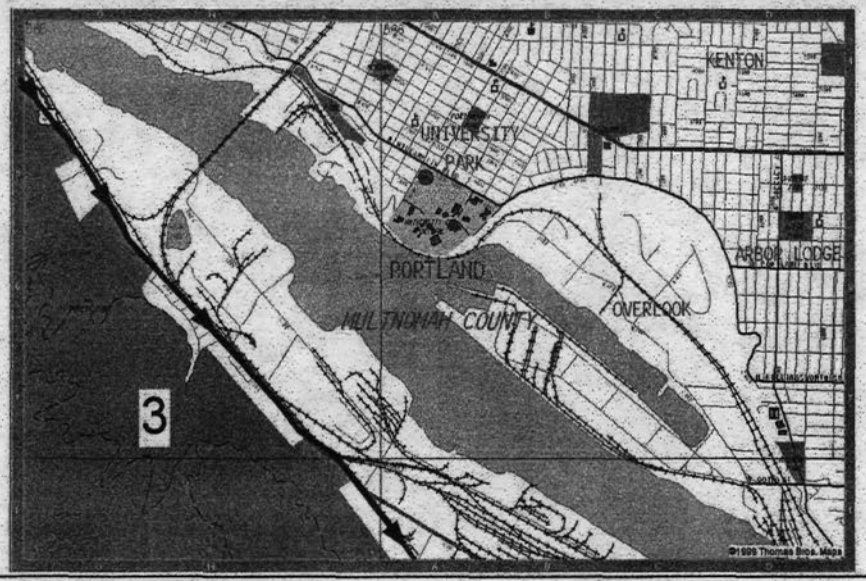
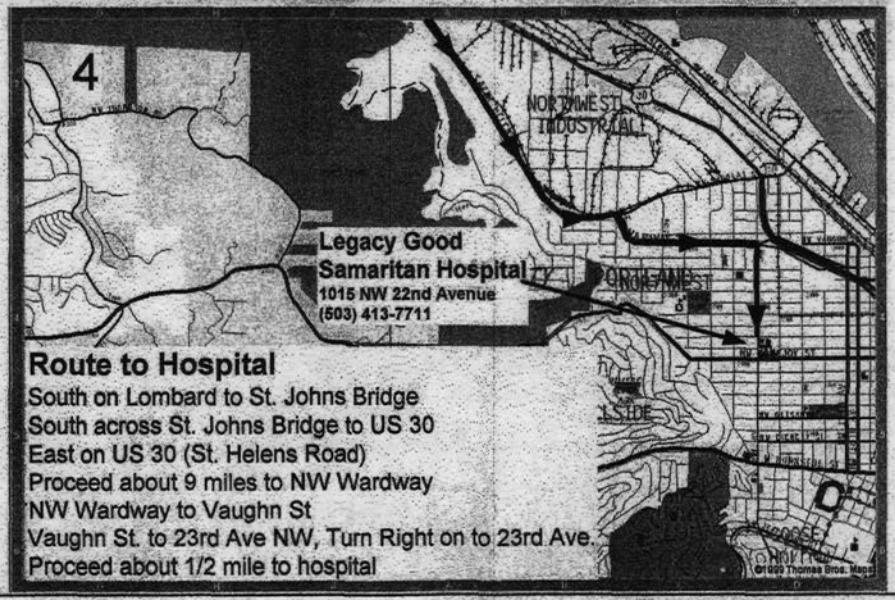
SCHN00152620









Route to Hospital

South on Lombard to St. Johns Bridge
South across St. Johns Bridge to US 30
East on US 30 (St. Helens Road)
Proceed about 9 miles to NW Wardway
NW Wardway to Vaughn St
Vaughn St. to 23rd Ave NW, Turn Right on to 23rd Ave.
Proceed about 1/2 mile to hospital

SCHN00152621

SCHNITZER INVESTMENT CORP.
3200 NW Yeon Avenue P.O. Box 10047 Portland, Oregon 97296-0047
Phone (503) 224-9900 Telex 289875 FAX (503) 299-2277

July 20, 2000

S. G. Gilbert, PE, DEE
Union Carbide Corporation
P.O. Box 8361
South Charleston, West Virginia 25303

Re: Water Well Information – Burgard Industrial Park
Portland, Oregon

Dear Mr. Gillbert:

Attached is a list of information you requested regarding water wells at the Burgard Industrial Park in Portland, Oregon. Information for well #2 is provided, however the well is not located on Schnitzer Investment Corp. property. We are aware of one other water supply well within the park on Northwest Pipe's property. Information for that well is not provided within this submittal.

When you have completed your water well survey within the vicinity of the Union Carbide site we would very much appreciate a copy of the final version. We hope this information will be of help to you during your investigation. Should you have any questions or comments, please call me at (503) 286-6967.

Sincerely,

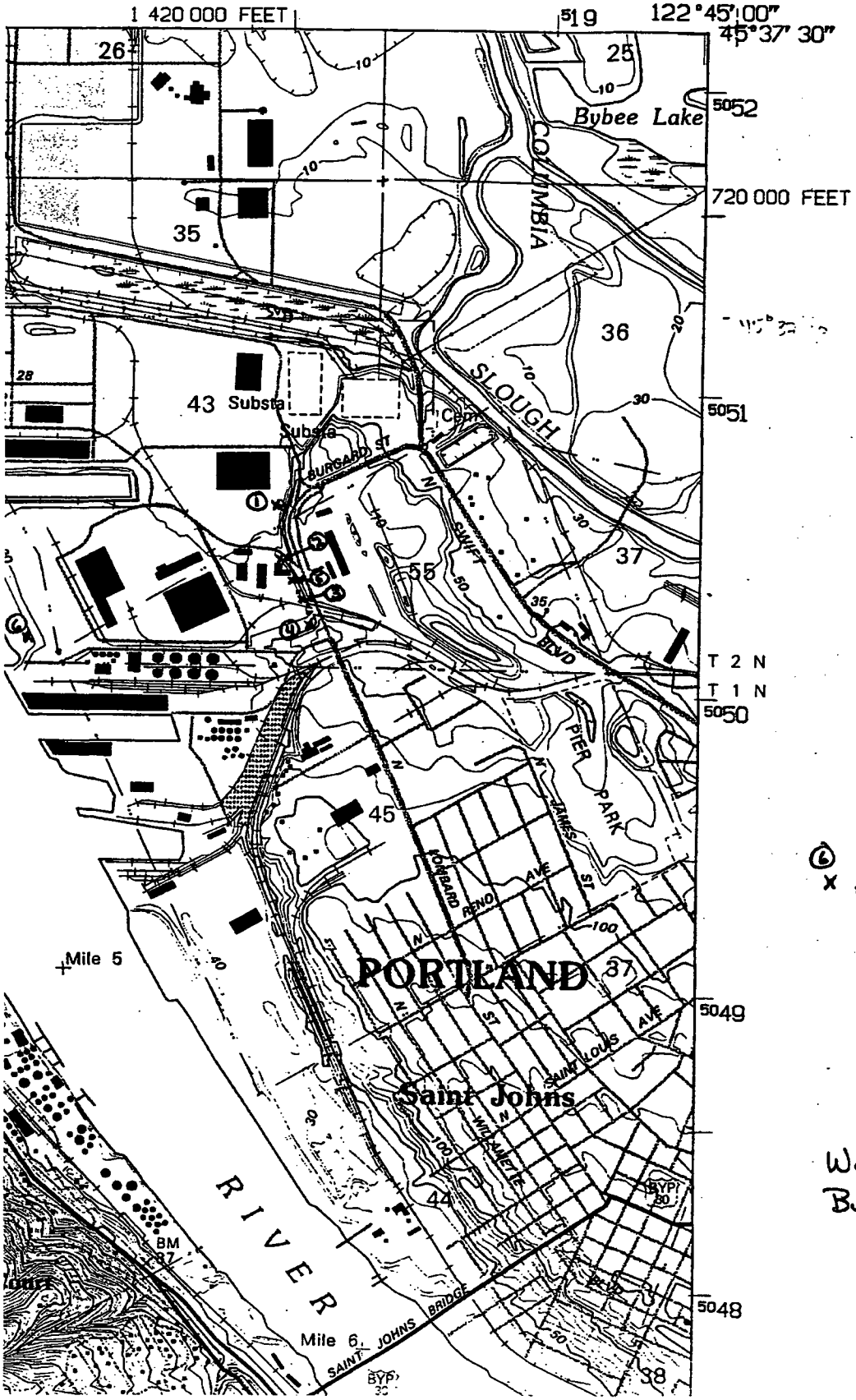
Schnitzer Investment Corp.

J. Jakubiak

Jim Jakubiak
Environmental Administrator

Attachments
- Figure 1. - Water Well Location Map
- Table 1. - Water Well Summary
- Water Resources Well Logs
- Union Carbide Survey Form

LINNTON QUADRANGLE
OREGON
7.5-MINUTE SERIES (TOPOGRAPHIC)



⑥ × Approximate location of water well with identifier.

Figure 1
Water Supply Wells
Burgard Industrial Park

SCHN00152623

TABLE 1
WATER SUPPLY WELLS
Burgard Industrial Park
Portland, OR.

Well #	Well Log ID	Township, Range, Section	Address	Depth	Date	Use
1	1826	2N/1W-35-NE-SE	12005 N. Burgard	90 feet	12/31/44	Active, industrial
2	1827	2N/1W-35-SE-SE	12005 N. Burgard	90 feet	12/31/44	Inactive
3	1828	2N/1W-35-SE-SE	12005 N. Burgard	90 feet	12/31/44	Inactive
4	1832	2N/1W-35-SE-SE	12005 N. Burgard	90 feet	12/31/44	Abandoned
5	1833	2N/1W-35-SE-SE	12005 N. Burgard	90 feet	12/31/44	Inactive
6	1825	2N/1W-35-SE-SW	12005 N. Burgard	142 feet	4/11/79	Active, industrial

Note: Well #2 is not on Schnitzer Investment Corp. property.

STATE ENGINEER
Salem, Oregon

MULT 001832

Well Record

STATE WELL NO. 2N/1W-35J
COUNTY Multnomah
~~APPLICATION NO.~~ ~~SP-2695~~

OWNER: (b) (6) [redacted]

MAILING ADDRESS: 12005 N. Burgard Street

CITY AND STATE: Portland, Oregon

LOCATION OF WELL: Owner's No. #1

NE ¼ SE ¼ Sec. 35 T. 2 ~~S.~~ N. R. 1 ~~E.~~ W., W.M.

Bearing and distance from section or subdivision corner 1060' W, 1690' N.

Altitude at well

TYPE OF WELL: Drilled Date Constructed 1944

Depth drilled 90' Depth cased 80'

Section

CASING RECORD:

12 inch

FINISH:

Perforated from 70 ft. to 80 ft.

AQUIFERS:

WATER LEVEL:

30 feet

PUMPING EQUIPMENT: Type Fairbanks Morse H.P. 30
Capacity 1200 G.P.M.

WELL TESTS:
Drawdown 10 ft. after hours pumping 1000 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER dom., man., and ind. Temp. °F. , 19
SOURCE OF INFORMATION GR-2553
DRILLER or DIGGER Jannsen Drilling Co., Route 1, Aloha, Oregon
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing

SCHN00152625

STATE ENGINEER
Salem, Oregon

MULT

Well Record

001826

STATE WELL NO. 2N/1W-35R
COUNTY Multnomah
~~APPLICATION NO.~~ GR-2696

OWNER: (b) (6)

MAILING ADDRESS: 12005 N. Burgard Street

CITY AND STATE: Portland, Oregon

LOCATION OF WELL: Owner's No. #2

SE ¼ SE ¼ Sec. 35 T. 2 N. R. 1 E., W.M.

Bearing and distance from section or subdivision corner 1040 ft. W.; 1200 ft. N.

Altitude at well

Section

TYPE OF WELL: Drilled Date Constructed 1944

Depth drilled 90' Depth cased 80'

CASING RECORD:

12 inch

FINISH:

12 inch perforations from 70 ft. to 80 ft.

AQUIFERS:

WATER LEVEL:

30 feet

PUMPING EQUIPMENT: Type Fairbanks Morse H.P. 30
Capacity 1200 G.P.M.

WELL TESTS:

Drawdown 10 ft. after hours pumping 1000 G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER dom., man., and ind. Temp. °F., 19 :
SOURCE OF INFORMATION GR-2554
DRILLER or DIGGER Jannsen Drilling Co., Rt. 1, Aloha, Oregon
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 40316

SCHN00152626

STATE ENGINEER
Salem, Oregon

MULT
001827

Well Record

STATE WELL NO. 2N/1W-35R
COUNTY Multnomah
~~APPLICATION NO.~~ GR-2697

OWNER: (b) (6)

MAILING ADDRESS: 12005 N. Burgard St.

CITY AND STATE: Portland, Oregon

LOCATION OF WELL: Owner's No. #3

SE ¼ SE ¼ Sec. 35 T. 2 ~~S~~ N. R. 1 ~~W~~ E., W.M.

Bearing and distance from section or subdivision corner 820 ft. W.; 780 ft. N.

Altitude at well

Section

TYPE OF WELL: Drilled Date Constructed 1944

Depth drilled 90' Depth cased 80'

CASING RECORD:

12 inch

FINISH:

perforations from 70 ft. to 80 ft.

AQUIFERS:

WATER LEVEL:

30 feet

PUMPING EQUIPMENT: Type Fairbanks Morse H.P. 30
Capacity 1200 G.P.M.

WELL TESTS:
Drawdown 10 ft. after hours pumping 1000 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER dom., man., and ind. Temp. °F. , 19
SOURCE OF INFORMATION GR-2555
DRILLER or DIGGER AJannsen Drilling Co., Route 1, Aloha, Oregon
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 63216

SCHN00152627

STATE ENGINEER
Salem, Oregon

MULT 001833

Well Record

STATE WELL NO. 2N/1W-35
COUNTY Multnomah
~~APPLICATION NO.~~ GR-2698

OWNER: (b) (6)

MAILING ADDRESS: 12005 N. Burgard Street

CITY AND STATE: Portland, Oregon

LOCATION OF WELL: Owner's No. #4

SE ¼ ¼ Sec. 35 T. 2 ~~S.~~ N., R. 1 ~~E.~~ W., W.M.

Bearing and distance from section or subdivision corner 760 ft. W.; 450 ft. N.

Altitude at well

Section

TYPE OF WELL: Drilled Date Constructed 1944

Depth drilled 90' Depth cased 80'

CASING RECORD:

12 inch

FINISH:

perforated from 70 ft. to 80 ft.

AQUIFERS:

WATER LEVEL:

30 feet

PUMPING EQUIPMENT: Type Fairbanks Morse H.P. 30
Capacity 1200 G.P.M.

WELL TESTS:
Drawdown 10 ft. after hours pumping 1000 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER dom., man., and ind. Temp. °F. 19
SOURCE OF INFORMATION GR-2556
DRILLER or DIGGER Jannsen Drilling Co., Route 1, Aloha, Oregon
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

SCHN00152628

STATE ENGINEER
Salem, Oregon

MULT
001828

Well Record

STATE WELL NO. 2N/1W-35R
COUNTY Multnomah
~~APPLICATION NO.~~ GR-2699

OWNER: (b) (6)

MAILING ADDRESS: 12005 N. Burgard St.

CITY AND STATE: Portland, Oregon

LOCATION OF WELL: Owner's No. #5

SE ¼ SE ¼ Sec. 35 T. 2 ~~S.~~ N., R. 1 ~~W.~~ E., W.M.

Bearing and distance from section or subdivision corner 930 ft. W.; 980 ft. N.

Altitude at well

Section

TYPE OF WELL: Drilled Date Constructed 80'

Depth drilled 90' Depth cased 80'

CASING RECORD:

12 inch

FINISH:

perforated from 70 ft. to 80 ft.

AQUIFERS:

WATER LEVEL:

30 ft.

PUMPING EQUIPMENT: Type Fairbanks Morse H.P. 30
Capacity 1200 G.P.M.

WELL TESTS:
Drawdown 10 ft. after hours pumping 1000 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER dom., man., and ind. Temp. °F., 19
SOURCE OF INFORMATION HR-2557
DRILLER or DIGGER Jaunsen Drilling Co., Route 1, Aloha, Oregon
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 8818

SCHN00152629

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the
WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

RECEIVED
APR 16 1979
WATER RESOURCES DEPT.
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

State Well No. 2N/1W-35 MULT
State Permit No. 001825

(1) OWNER:
Name Schnitzer Leasing Inc.
Address 3300 N. W. Yeon Ave, P. O. Box 10047
Portland, Oregon 97210 224-9900

(2) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL: Rotary ☐ Driven ☐ Cable ☒ Jetted ☐ Dug ☐ Bored ☐

(4) PROPOSED USE (check): Domestic ☐ Industrial ☒ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(5) CASING INSTALLED: Threaded ☐ Welded ☒
6" Diam. from 0 ft. to 19 ft. Gage .280
6" Diam. from 19 ft. to 135 ft. Gage .312
" Diam. from ft. to ft. Gage

(6) PERFORATIONS: Perforated? ☐ Yes ☒ No.
Type of perforator used
Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS: Well screen installed? ☒ Yes ☐ No
Manufacturer's Name UPO Johnson
Type Stainless Steel Model No.
Diam. 5" Slot size 18 Set from 132 ft. to 142 ft.
Diam. Slot size Set from ft. to ft.

(8) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☒ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
Bailer test 75 gal./min. with 1 ft. drawdown after 1 hrs.
Artesian flow g.p.m.
Temperature of water 53° Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used Cement grout
Well sealed from land surface to 20 ft.
Diameter of well bore to bottom of seal 10 in.
Diameter of well bore below seal 6 in.
Number of sacks of cement used in well seal 16 sacks
How was cement grout placed? Pumped through one inch plastic pipe between 10-inch hole and 6-inch casing.
Was a drive shoe used? ☒ Yes ☐ No Plug Size: location ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:
County Multnomah Driller's well number 10-79
¼ ¼ Section 35 T. 2N R. 1W W.M.
Bearing and distance from section or subdivision corner
Scrap metal shredder/chopper
Terminal 4, Port of Portland

(11) WATER LEVEL: Completed well.
Depth at which water was first found 124 ft.
Static level 21 ft. below land surface. Date 4/11/79
Artesian pressure lbs. per square inch. Date

(12) WELL LOG: Diameter of well below casing --
Depth drilled 142 ft. Depth of completed well 142 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Sand; brown	0	27	
Sand and silt; gray	27	76	
Sand; gray, fine	76	124	
Sand and gravel; gray	124	142	21

Work started April 3, 1979 Completed April 11, 1979
Date well drilling machine moved off of well April 13, 1979

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] Ronald F. McConnell (Drilling Machine Operator) Date April 16, 1979
Ronald F. McConnell
Drilling Machine Operator's License No. 398

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Steinman Bros. Drilling Co. (Person, firm or corporation) (Type or print)
Address 3023 S. E. Holly Avenue, Milwaukie, Oregon 97222
[Signed] Ronald F. McConnell (Water Well Contractor)
Contractor's License No. 626 Date April 16, 1979

(USE ADDITIONAL SHEETS IF NECESSARY)

SCHN00152630

UNION CARBIDE WELL SURVEY FOR PORTLAND, OR, SITE
(5/00)

Business Name: Schnitzer Investment Corp.
Address: 12005 North Burgard Road (Burgard Industrial Park)

Person completing survey: Jim Jakubiak
Environmental Administrator

Telephone: (503)286-6976

1) Do you have any water wells on your property? (Yes) No

If yes, please provide the additional information requested below.
If no, survey is complete.

2) How many wells are located on your property?
2 active, 2 inactive
3) How long have they been in existence?
See attached Table
4) Are any wells currently being used (check one)?
a) Yes X
b) No _____
c) Only sporadically X; How often Seasonal Use

5) If no, when were they last used?
—

(Please skip to question 8)

6) If yes or sporadically, how is the groundwater used?

Well #1 and Well #6 are used for industrial purposes at Schnitzer Steel's parcel. See attached table for additional information.

7) What is the average volume of groundwater used daily?
Unknown - varies significantly depending on season.
8) When was the water last tested and by whom?
Unknown.
9) What is the length of the well screen?
See attached well logs.
10) What is the depth of the well screen?
See attached well logs.

Thank you for your cooperation.

Please return completed survey to Pat Turina, Wilder Environmental, 6645 NE 78th Court, Ste C-10, Portland, Oregon 97218

BRIDGEWATER GROUP, INC.

Outfall 1 Pipe Status
Burgard Industrial Park

TO: Alicia Voss/DEQ

COPY: Mat Cusma/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: October 11, 2001

This memorandum presents the current status of the assessment and repair/replacement of the Outfall 1 conveyance pipe at the Burgard Industrial Park in Portland, Oregon. You had requested this update in a September 19, 2001 letter to Mat Cusma.

Schnitzer is continuing to evaluate the condition of the pipe and, based on the evaluation, identify and assess various options for conveying the storm water collected by the Outfall 1 drainage system to Outfall 1. On October 6, 2001 Schnitzer excavated to the top of the Outfall 1 line about 250 feet east of the discharge point. The top of the pipe was about four feet below the existing ground surface. The pipe was found to slope down to the east (back-fall) rather than to the west as would be necessary for gravity drainage to occur toward the outfall.

The top of the pipe was opened and about 6-inches of sediment was observed in the invert of the inside the pipe. A camera survey was performed both to the east and to the west of the exposed pipe section. The camera unit was able to proceed about eight feet to the east before the pipe was observed to be completely full of sediment and blocked. The camera unit was able to proceed about six feet to the west before the pipe was observed to be completely full of sediment and blocked. The blockage to the east is about 600 feet west of where the pipe is believed to be first plugged and where the Outfall 1 remedial investigation exploration will be performed.

Based on these most recent investigations and the investigations performed in May 2001, it appears that the Outfall 1 line is plugged at several locations and has suffered significant differential settlement causing reverse slopes to be present along the pipe. Give these conditions, it does not appear that the existing pipe can be salvaged.

Schnitzer is currently considering two alternatives for conveying the Outfall 1 system storm water. These two alternatives are:

- Installing a new pipeline along the same general alignment of the existing damaged line. The pipeline would be connected to the existing Outfall 1. Given the presence of several key surface features along the alignment and the extreme difficulty of performing an open-cut excavation along this alignment, micro-tunneling/boring methods are being considered. There is some concern regarding the potential for future on-going settlement in this area and associated future damage to any newly installed pipe.

SCHN00152648

- Installing a pump station upgradient of where the pipeline is first plugged and pumping the storm water to another drainage system on the Burgard site. The potential operational and construction difficulties associated with installing and continuously operating a pump station and the installation of the connecting lines is of concern. Capacity of the receiving system also needs to be evaluated.

Under either alternative, storm water will no longer flow to the breached portion of the existing Outfall 1 pipe.

Schnitzer is planning on completing the assessment of these options by the end of October. Schnitzer will then proceed to construct the new conveyance system.

Please call if you have any questions.

SCHN00152649

BRIDGEWATER GROUP, INC.

4500 SW KRUSE WAY; SUITE 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

July 23, 2001

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Dear Ms. Voss:

Enclosed please find four copies of our, July 23, 2001, *Phase I Remedial Investigation Work Plan* for the Burgard Industrial Park site. We look forward to your comments.

Please call if you have any questions and thank you for your help on this project.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

TETRA TECH, INC.
TERMS AND CONDITIONS
TIME AND MATERIAL

THIS CONTRACT, made and entered into the 1st day of August, 2001, by and between Schnitzer Steel Ind., Inc., hereinafter called the "Client", and Tetra Tech, Inc., a Delaware Corporation, hereinafter called the "Contractor", 670 North Rosemead Boulevard, Pasadena, California, 91107, agree as follows:

WHEREAS, the Client has requested from Contractor services as described in our preliminary scope of work dated 30 July 2001 incorporated herein as Exhibit A (the "work").

NOW THEREFORE, in consideration of the terms, conditions and covenants, and performance contained herein, the parties agree as follows:

1. SCOPE OF WORK: The Contractor shall furnish the necessary personnel, materials, services, and facilities (except as otherwise specified), to perform the work as stated in said proposal.

2. PERIOD OF PERFORMANCE: The period of performance for this Contract shall commence 01AUGUST2001 and all work shall be completed expeditiously, excepting, however, any delays caused by Acts of God, regulatory agencies, changes requested by Client, labor strikes, lock-outs, fire, unavoidable casualties, or other causes beyond the control of the Contractor and without its fault or negligence. Should such cause for delay occur, the time for the performance or completion of said work shall be extended for a reasonable period to allow therefor.

3. COMPENSATION: The total compensation for all work hereunder shall be on a Time and Materials basis in accordance with the attached Rate Schedule (Exhibit B). The total price shall not exceed XXXX$$35,000.00XXXXX.

4. PAYMENT: Invoices shall be submitted monthly for all work performed during the preceding month. All invoices shall be due and payable within 30 days after receipt.

Any unpaid amounts shall accrue interest at the rate of 1 percent per month or any portion thereof, beginning 30 days after date of invoice and until such time as said invoice is paid.

Client agrees to pay any and all attorney's fees and litigation and other collection expenses incurred by Contractor to recover past due amounts.

5. INSURANCE: Contractor agrees to carry the following insurance throughout the life of this Contract and to identify Client as an additional insured pursuant to this agreement:

a. General liability - $1,000,000 each occurrence.
b. Automobile liability - $1,000,000 each occurrence.
c. Worker's Compensation and Employer's Liability - statutory limits.

Tetra Tech also maintains Errors & Omissions and Professional Liability insurance. Contractor will provide a Certificate of Insurance to Client as a provision of this agreement.

master\ .t&m

6. APPLICABLE LAW AND COMPLIANCE: This Contract shall be governed by and construed in accordance with the laws of the State of Oregon.

7. CHANGES: This Contract may not be modified, nor may any provisions be waived, unless and until a written modification is issued to the Contract and has been executed by both parties.

8. ENTIRE AGREEMENT: Upon acceptance of this Contract, Client agrees that the provisions under this Contract, including all documents incorporated herein by reference, shall constitute the entire Contract between the parties hereto and supersedes all prior agreements, written or verbal, relating to the subject matter thereof.

In no event shall the preprinted terms or conditions found on any Client or Contractor purchase or work order be considered an amendment or modification of this Contract, even if such documents are signed by representatives of both parties. Such preprinted terms or conditions shall be considered null and void and of no effect.

9. TERMINATION: This Contract may not be terminated in whole or in part for any reason other than default. In the event of such termination for default, any claim on the part of either party shall, upon agreement between the parties, either be decided by binding arbitration, one arbitrator chosen by each party hereto and the third chosen by the other two arbitrators, or; by applicable law and proceedings thereunder.

10. INDEMNIFICATION: Each party agrees to defend, indemnify, and save the other harmless from any and all claims resulting from the negligence of the indemnifying party or for breech of its obligations hereunder.

11. CONFIDENTIALITY OF DATA: The Contractor shall not disclose data, reports or other information collected or developed pursuant to this Contract without the express written permission of the Client.

12. LICENSES, PERMITS AND COMPLIANCE WITH FEDERAL AND LOCAL LAWS: Contractor agrees to comply with all applicable provisions of Federal and State statutes, municipal ordinances, regulations and requirements issued or imposed by any governmental authority and to indemnify and save harmless Client against any damages or liability resulting from Contractor's failure to comply. Client shall obtain all necessary licenses and permits required in connection with the performance if this Contract, unless otherwise stated in Statement of Work.

13. RESPONSIBILITY: The responsibility for the services provided by Contractor shall be limited to performance in accordance with generally accepted professional engineering practice at the time when and the place where the services are rendered within the limits of time and funds set forth above. Accordingly, it is agreed that:

a. CONTRACTOR PROVIDES NO WARRANTY OR GUARANTEE WHATSOEVER, INCLUDING WARRANTIES OF FITNESS FOR INTENDED USE OR OF MERCHANTABILITY for any item or result which may be delivered under this Contract.

14. NOTICE OF DEFECTS/LIMITATION OF LIABILITY: In the event Client disputes any portion of an invoice submitted by Contractor, it shall give Contractor written notice of its objection within 30 days after receipt of invoice. In no event shall Contractor's liability for defective services or goods exceed (i) $100,000, or (ii) the value of the agreement, whichever is greater. Contractor shall not be liable for any special consequential or incidental damages.

15. DIFFERING SITE CONDITIONS: Should the Contractor encounter, or Client discover, during the progress of the work, (i) subsurface or latent physical conditions at the site materially differing from those indicated in this Contract, or (ii) unknown physical conditions at the site, or of an unusual nature, as to be generally recognized as not inherent in work of the character provided for in this Contract, and if it causes an increase in the Contractor's cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed as a result of such conditions, either of the parties may cancel the Contract or the parties may agree to an equitable adjustment and the Contract modified in writing accordingly.

16. CLIENT FURNISHED DATA: Contractor shall rely upon all Client furnished data, documents, drawings or specifications as being complete and accurate unless otherwise noted. Any additional costs of Contractor resulting from any inaccuracies or inadequacies of such data shall be at the Client's expense and Client shall reimburse Contractor for all costs related thereto.

17. SITE ACCESS: Access to the site shall not be unreasonably withheld. In the event that Contractor is encumbered or prevented from entering the site through no fault of the Contractor, Client shall reimburse Contractor for all costs related thereto.

18. HAZARDOUS MATERIALS: To the extent that the work performed hereunder may involve hazardous materials, it is hereby agreed that:

a. For work performed under this Contract, The Contractor shall not be deemed to be the generator of hazardous waste as defined under state and federal laws.

b. The Client shall identify all hazardous materials known to him which may be involved in the project. Such identification shall be made in writing.

c. The Client shall have final decision on the disposal, treatment or transportation of hazardous materials. Contractor's responsibility shall be limited to recommendation. In the event that Contractor is required to act upon Client's decision, such decision shall be communicated in writing.

d. Selection of arrangements for the disposal and/or treatment of hazardous materials shall be the sole responsibility of Client.

e. In no event shall Contractor be expected to sign Hazardous Materials Manifests.

f. Any and all samples of hazardous materials taken for analysis shall remain the sole property of Client.

IN WITNESS whereof, the duly authorized representatives of the Client and Contractor have executed this Contract on the dates shown.

	TETRA TECH, INC.
By:	By: for
Name: Mathew J. Cusma	Name: Gerald J. Portele
Title: Environmental Administrator	Title: Director
Date: 01August2001	Date: 01 August, 2001
Address: P.O. Box 10047 Portland, OR 97296	
Phone: 503/286-6944	

master\ l&m

SCHN00152658

EXHIBIT A

PRELIMINARY SCOPE OF WORK

TETRA TECH, INC.
6100 219th Street Southwest, Suite 550
Mountlake Terrace, Washington 98043
Telephone: (425)776-3781 / fax: (425) 673-9119

30 July 2001

Mathew Cusma
Environmental Administrator
Schnitzer Steel Industries, Inc.
3200 NW Yeon Avenue
Portland, OR 97210

SUBJECT: PRELIMINARY SCOPE OF WORK FOR ENVIRONEMNTAL SERVICES
PHASE I REMEDIAL INVESTIGATION
BURGARD INDUSTRIAL PARK, PORTLAND, OREGON

Dear Mr. Cusma:

Tetra Tech is pleased to provide the following preliminary scope of work for environmental services for the Phase I Remedial Investigation (RI) at Burgard Industrial Park. The scope of services is based on our understanding from conversations and meetings with yourself and Ross Rieke of Bridgewater Group, Inc. Tetra Tech will provide support services for the Phase I RI as follows:

- Review Work Plan and Sampling and Analysis Plan (SAP) and provide comments on approach and procedures
- Prepare a Health and Safety Plan for field work
- Perform field sampling operations following procedures specified in the Work Plan/SAP
- Technical support for data interpretation and quality assurance/quality control
- Prepare draft Phase I RI report

Costs for the work performed will be in accordance with the time and materials charges as specified in Attachment B and will not exceed an amount of $ 35,000.

If you have any questions, or require any additional information, please feel free to contact me directly at (425) 673-3676 or John Virgin at (425) 673-3674. Thank you for this opportunity to support Schnitzer Steel on this project.

Respectfully,
Tetra Tech, Inc.

Gerald J. Portele
Director
Environmental Engineer

cc: Michele Kuhl, Tetra Tech – Contracts Administration
John Virgin, Tetra Tech – Senior Environmental Scientist

EXHIBIT B

TETRA TECH, INC. TIME AND MATERIALS RATE SHEET

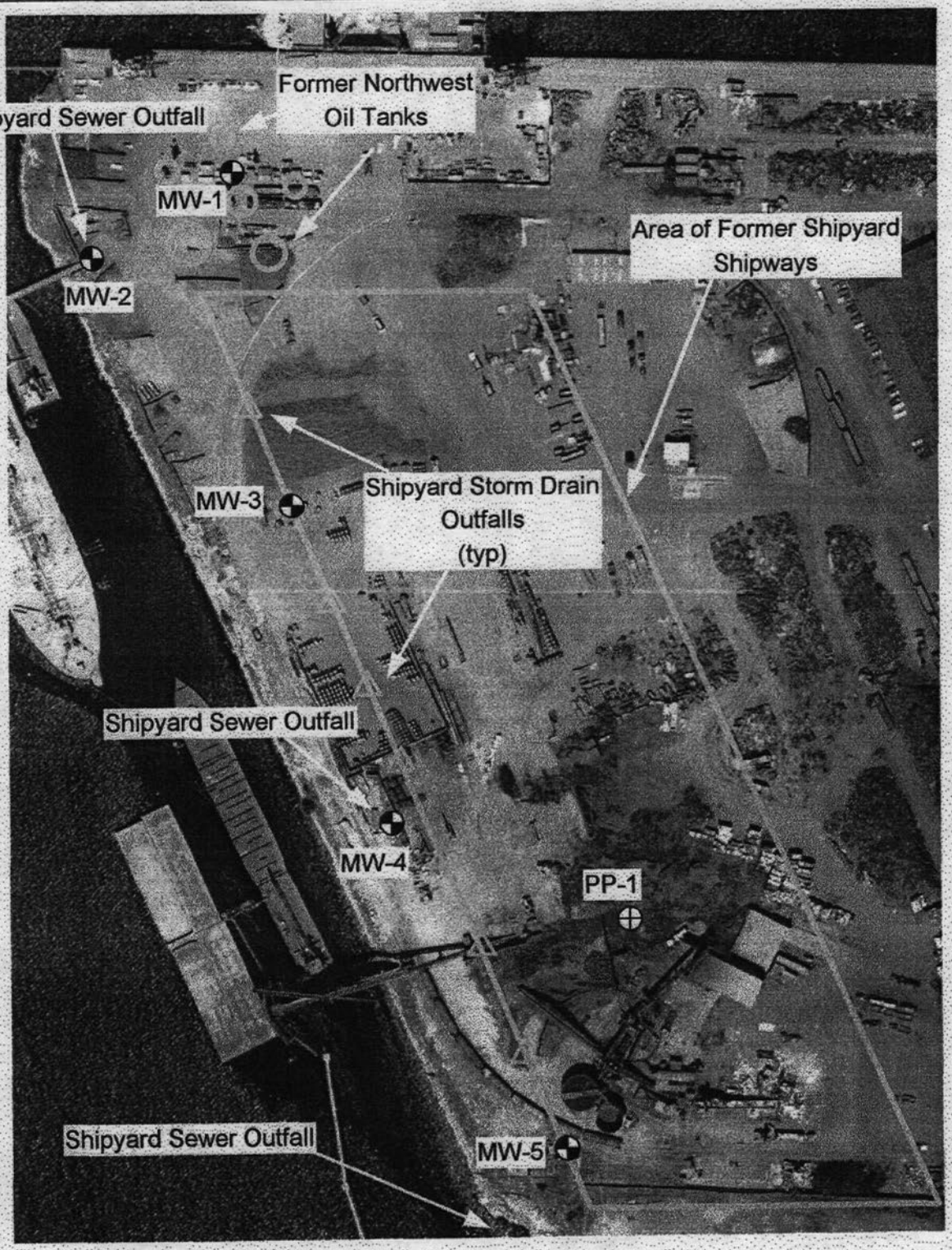
TETRA TECH, INC.
Standard Time & Materials Rates

Labor Category	Hourly Billing Rate
Division Manager	$139.00
Director/Chief Engineer	$126.00
Project Manager	$118.00
Principal Engineer/Scientist	$101.00
Senior Engineer/Scientist Level 2	$ 94.00
Senior Engineer/Scientist Level 1	$ 86.00
Engineer/Scientist Level 3	$ 76.00
Engineer/Scientist Level 2	$ 68.00
Engineer/Scientist Level 1	$ 58.00
Design Draftsman	$ 66.00
Associate Engineer/Scientist, Senior Draftsman	$ 52.00
Technician Level 2, Draftsman	$ 49.00
Technician Level 1, Clerical	$ 43.00
Technical/Clerical Aide	$ 38.00
Secretarial	$ 48.00

Rates Effective 1 October 2000 through 30 September 2001

Notes:

1. Above rates apply to normal working hours.
2. All other direct costs such as travel, materials, supplies, etc. will be billed at actual cost plus 25% handling charge.
3. Rates for field equipment are quoted upon request.
4. Rates for subcontract services such as laboratory analyses, drilling, utility location, etc. will be billed at actual cost plus 10% handling charge.



Proposed Monitoring Well

Proposed Push Probe

Approximate Scale

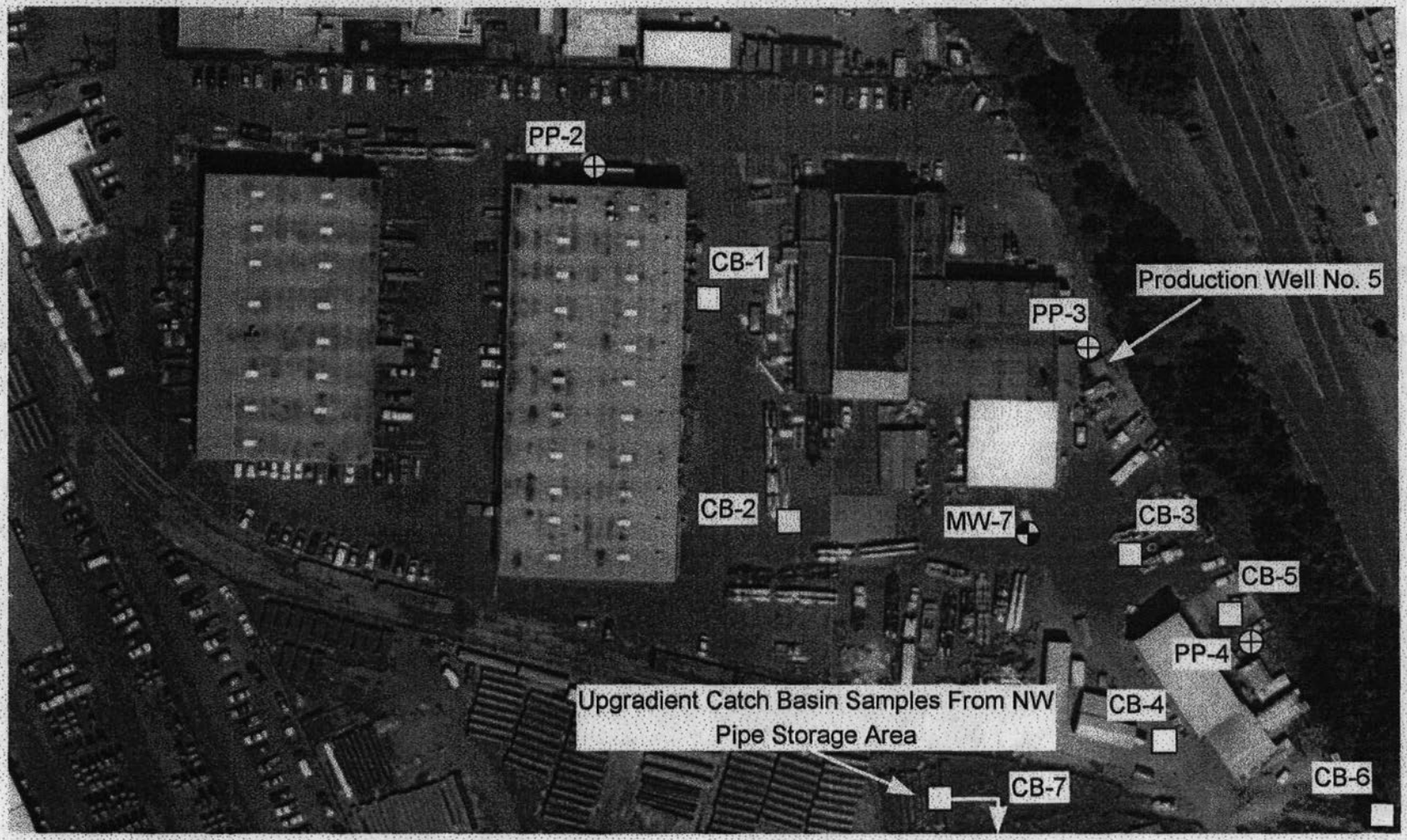
220 feet

N

Figure 5-1

Proposed Phase I Explorations-SW Area
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



N

Approximate Scale

100 feet

Proposed Monitoring Well

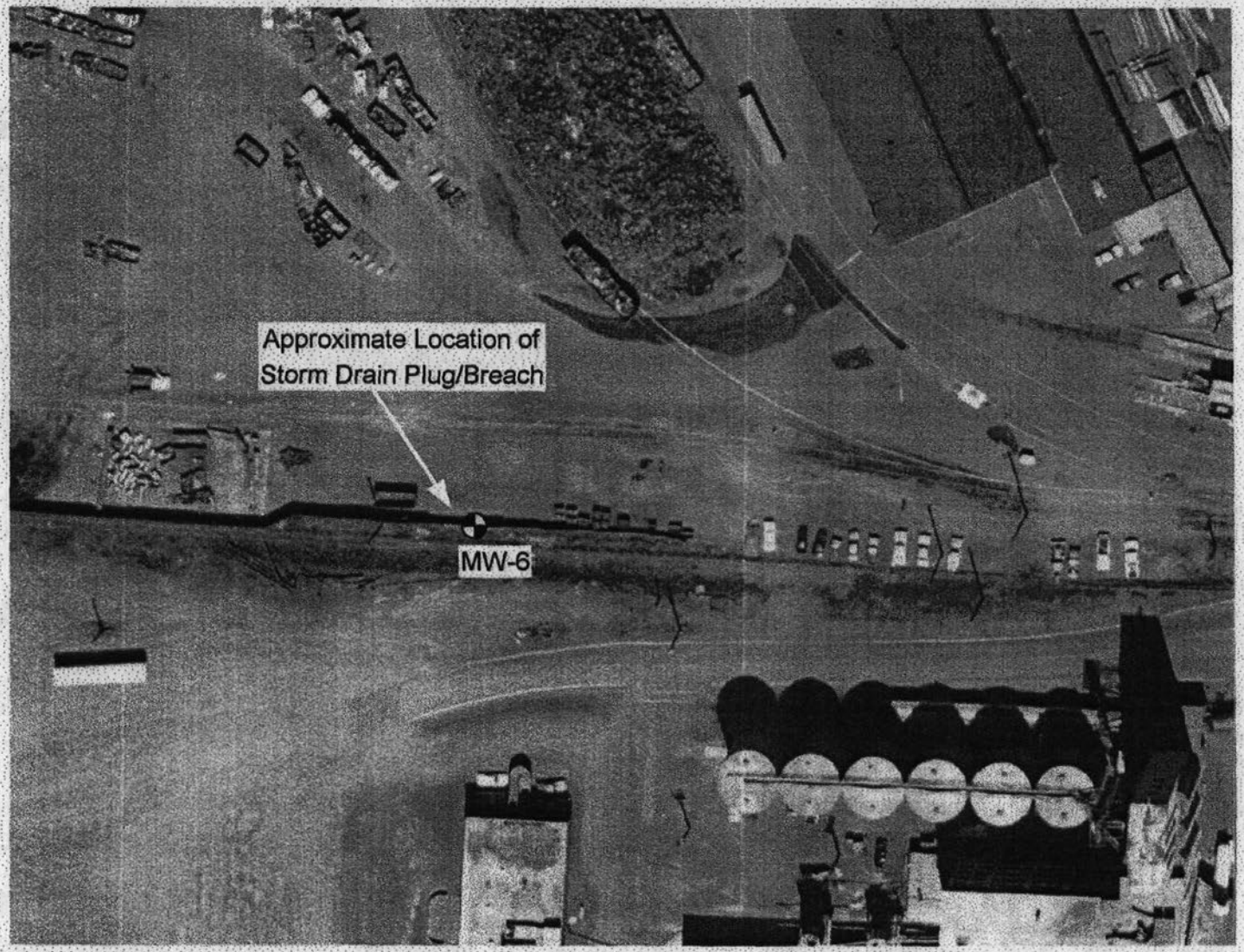
Proposed Push Probe

Proposed Catch Basin Sediment Sample

Figure 5-2
Proposed Phase I Explorations-SE Area
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

SCHN00152664



Approximate Scale

85 feet

Proposed Monitoring Well

N

Figure 5-3
Proposed Phase I Explorations-Outfall 1 Plug
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

SCHN00152665

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

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

June 7, 2001

Tom Zelenka
Schnitzer Investment Corporation
P.O. Box 10047
Portland, Oregon 97296-0047

RE: DEQ Review Comments
Remedial Investigation Proposal
Schnitzer Burgard Industrial Park

Dear Mr. Zelenka:

The Department of Environmental Quality (DEQ) completed its review of the May 7, 2001 *Remedial Investigation Proposal* submitted by Bridgewater Group, Inc. (BGI) for the Schnitzer Burgard Industrial Park at 12005 North Burgard Road in Portland. BGI submitted the report on your behalf according to the June 2000 Voluntary Agreement for Remedial Investigation (RI) and Source Control Measures (SCM).

Please review the comments in this letter and develop a work plan that addresses the features of concern on the site. Please submit the work plan by July 23, 2001. Contact me if you would like to discuss the work plan or the contents of this letter.

Comments

Section 5.2.1 One boring location may be insufficient to determine if a release occurred at the location of the former Northwest Oil Tanks, but DEQ understands that other borings are proposed near this area. DEQ will wait to comment on the number of borings for this area until the work

plan is received because the work plan should include a figure depicting the location of all of the proposed borings.

Section 5.2.6 The work plan should include a task to determine the location of the line break, which should be repaired. Once the pipe is repaired, the outfall should be added to the facility stormwater-monitoring program. If the pipe is not repaired, it needs to be registered as an underground injection well (UIC) and meet the applicable requirements which includes pretreatment to safe drinking water standards.

A soil and groundwater investigation is necessary at the line break, as proposed. The investigation of soil conditions could be conducted during pipe repair activities, if desired.

General

Please include all the appropriate detail in the work plan including a Sampling and Analysis Plan (SAP) and Health and Safety Plan (HASP).

If you have questions, please contact me at 503-229-5011.

Sincerely,

Alicia C. Voss, Project Manager
Portland Harbor and Voluntary Cleanup Section

cc: Tom Roick and Rod Struck, NWR/DEQ
Eric Blischke, NWR/DEQ
Ross Rieke, Bridgewater Group, Inc.
Joan Snyder, Stoel Rives

DEQ-DC1

BRIDGEWATER GROUP, INC.

4500 SW KRUSE WAY; SUITE 110
LAKE OSWEGO, OR 97035
TEL: (503) 675-5252
FAX: (503) 675-1960
rrieke@bridgeh2o.com

May 8, 2001

Ms. Alicia Voss
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Dear Ms. Voss:

Enclosed please find four copies of our, May 7, 2001, *Remedial Investigation Proposal* for the Burgard Industrial Park site. We look forward to your comments.

Please call if you have any questions and thank you for your help on this project.

Sincerely,

BRIDGEWATER GROUP, INC.

Ross D. Rieke, P.E.
Vice President
Environmental Consultant

Mpt C.

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

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

June 16, 2000

Tom Zelenka
Manager-Legislative/Environmental and Public Affairs
Schnitzer Investment Corporation
PO Box 10047
Portland, OR 97296

Re: Transmittal of Executed Schnitzer Voluntary Agreement

Dear Mr. Zelenka:

Enclosed please find an executed original of the Voluntary Agreement for Remedial Investigation and Source Control Measures between Schnitzer Investment Corporation, Inc., (Schnitzer) and the Department of Environmental Quality (DEQ). As you know, the scope of work calls for submission of Schnitzer's pre-remedial investigation work plan within 30 days of issuance of this Agreement (issued June 16, 2000).

Schnitzer has expressed disappointment with the voluntary agreement and the process by which the voluntary agreement was negotiated with responsible parties. DEQ disagrees, however, with Schnitzer's characterization of both. Among other things, Schnitzer contends that DEQ has exceeded its statutory authority. This argument is premised upon the erroneous assumption that DEQ is forcing parties that are not liable under ORS 465.255 to perform work under the voluntary agreement. DEQ does not take the position that it has authority to require parties that are not liable under ORS 465.255 to implement a remedy. But, unlike Schnitzer, it does not assume that Schnitzer (or any other party asked to enter voluntary agreements) is not liable under ORS 465.255.

Schnitzer also mischaracterizes the negotiations leading up to the final voluntary agreement. As you know, DEQ made a number of significant revisions to the agreement in response to input from Schnitzer and others; revisions that addressed most of concerns voiced by the parties involved. The final agreement includes each term to which DEQ agreed during the negotiations. The agreement now differs substantially from that which was introduced to all the Portland Harbor potentially responsible parties at the meeting DEQ convened on October 12, 1999, in Portland, at the Oregon State Office Building. As DEQ explained then, and consistently maintained in subsequent discussions with numerous parties, due to the high environmental priority of the work, DEQ would allow cooperative parties to sign agreements with DEQ, in lieu of issuing traditional orders. These agreements were never characterized as the voluntary agreements DEQ typically negotiates, at the request of responsible parties, for low environmental priority sites. In fact, DEQ introduced these agreements as being non-negotiable, in the interest of time and site priority. However, in response to Schnitzer's request, DEQ agreed to consider

significant changes in support of your unique needs. Although DEQ did not concur with each of the proposed revisions, it remains confident that the decisions made were well supported and the negotiations conducted in good faith.

Finally, Schnitzer questions DEQ's decision to approach sites that require enforcement differently from those sites that agree to perform the necessary work voluntarily. In this situation, as in many others, DEQ has attempted to provide all reasonable incentives to cooperative parties subject to state and federal cleanup requirements. At the same time, the State attempts to preserve its most effective enforcement options, should enforcement be necessary to insure that investigation and cleanup proceed quickly, and with the least burden to all taxpayers. DEQ does not agree that the reservation of these options should be considered "coercion".

Portland Harbor is a very complex and high-priority project. It is imperative that investigation of harbor sites proceeds without delay and, to the greatest extent possible, without orphan site funding of site investigations or cleanups. DEQ looks forward to Schnitzer's cooperation in making that happen. If you would like to meet to discuss this further, please contact me (229-6712) or Neil Mullane, NWR Administrator (229-5827).

Sincerely,

Michael E. Rosen, Manager
Voluntary Cleanup and Portland Harbor

Enclosure

Cc: Langdon Marsh, Director, DEQ
Neil Mullane, Administrator, NWR, DEQ
Eric Blischke, NWR, DEQ
Alicia Voss, NWR, DEQ
Kurt Burkholder, Department of Justice
Lynne Perry, Department of Justice
Joan Snyder, Stoel Rives

VOLUNTARY AGREEMENT FOR
REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

DEQ NO. WMCVC- NWR- 0015

BETWEEN: Schnitzer Investment Corporation (Schnitzer)

AND: Oregon Department of Environmental Quality (DEQ)

EFFECTIVE DATE: May ___, 2000

Pursuant to ORS 465.260(2) and (4), the Director, Oregon Department of Environmental Quality (DEQ), enters this Agreement with Schnitzer Investment Corporation (Schnitzer). This Agreement contains the following provisions:

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I. RECITALS

A. Schnitzer is a "person" under ORS 465.200(20).

B. The Schnitzer site occupies approximately 200 acres at 12005 N. Burgard Road, Portland, Oregon. A vicinity map and a site map are included in Attachment A to this Agreement. The Schnitzer site does not include the property that was formerly leased to Premier Edible Oils and C&T Quincy Foods.

C. The Schnitzer site is located within or near what is known as the Portland Harbor, a six-mile reach of the Willamette River between Sauvie Island and Swan Island. A 1997 study by DEQ and the U.S. Environmental Protection Agency identified elevated levels of

hazardous substances in shallow, near-shore sediments throughout the Portland Harbor.

D. Schnitzer has owned the Site since 1972. Current site operations are varied. Schnitzer Steel Industries (SSI) operates a scrap metal recycling yard and deep marine terminal at the Site. SSI processes, stores, and exports recyclable materials on approximately 93 acres. Its shipping docks are located along the Site's western riverfront and an approximate 11-acre slip (International Terminals Slip). * Other current Site operations include nonferrous metals recovery, fabrication and painting of automobile transport trailers, truck maintenance, ocean shipping container storage and repair facility, machine shop, sandblasting, and the manufacture of protective coatings. * Recent site operations also included processing, storing and shipping of cooking oils and warehousing.

* E. Materials used and stored on-site include diesel, hydraulic oil, waste oil and other petroleum products; paint, hardeners, and solvents. Primary wastes generated by SSI and other site operators include non-metallic rail car and other scrap operation debris, used oil, used antifreeze, used solvent and solid wastes. At least eight releases of petroleum to the Willamette River from the Schnitzer site have been reported since 1979. Previous investigations have detected contamination in soil and groundwater on, and sediments adjacent to, the Site.

* F. The following contaminants were detected in sediment samples collected adjacent to the Schnitzer site at concentrations exceeding baseline concentrations established for the Portland Harbor Study Area: antimony, arsenic, barium, cadmium, cobalt, copper, chromium, iron, manganese, lead, mercury, nickel, silver, zinc, organotins, bis (2-ethylhexl) phthalate, butylbenzlphthalate; carbazole, dibenzofuran, 2-methylnaphthylene, and low- and high- molecular weight polynuclear aromatic hydrocarbons (LPAHs and HPAHs, respectively). Concentrations of antimony, carbazole, dibenzofuran, mercury, zinc, LPAHs, and HPAHs were all more than twice their respective baseline values. Concentrations of organotins at one sediment sample location were more than 150 times the baseline value. Investigations have also disclosed contamination of soil and groundwater at the Site.

The substances described in this section are "hazardous substances" under ORS 465.200(15). * The presence of hazardous substances in soil, groundwater, and sediments at or near the site constitutes a "release" or "threat of release" into the * environment under ORS 465.200(21). The Schnitzer site and the contaminated sediments at or near the site are a "facility" under ORS 465.200(12).

* DEQ contentions, not admitted by Schnitzer

G. DEQ considers the activities required by this Agreement to be necessary to protect public health, safety, and welfare and the environment.

II. AGREEMENT

The parties agree as follows:

A. Work

1. Remedial Investigation

Schnitzer shall perform a remedial investigation satisfying OAR 340-122-0080, the terms and schedule of a DEQ approved work plan developed by Schnitzer, and applicable elements of the Scope of Work contained in Attachment B to this Agreement. Schnitzer may specify, in the proposed work plan, elements of the Scope of Work that [NAME of PARTY] considers inapplicable or unnecessary to the remedial investigation for the facility. Schnitzer may propose to perform the work in phases or operable units.

2. Source Control Measures

For any unpermitted discharge or migration of contaminants to the Willamette River or sediments identified in the remedial investigation, Schnitzer shall evaluate such discharge or migration, and then develop and implement source control measures in accordance with the Scope of Work.

3. DEQ-Review

DEQ shall provide review, approvals/disapprovals, and oversight in accordance with the schedule set forth in the Scope of Work, or as soon as thereafter practicable in the event staff resources or workload prevent compliance with the schedule. Any DEQ delay shall correspondingly extend Schnitzer's schedule for a related deliverable or activity.

4. Additional Measures

Schnitzer may elect at any time during the term of this Agreement to undertake remedial measures other than those required under this Agreement necessary to address a release or threatened release of hazardous substances at the facility. Such other measures shall be subject to prior approval by DEQ. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health,

safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action as soon as is practicable.

5. Dredging Activities

Schnitzer shall notify the DEQ project manager at least sixty (60) days before undertaking any dredging or other activity that might disturb sediments at or near the facility. In its notice of dredging or other activity, Schnitzer shall: (a) Evaluate the concentration of hazardous substances present in and below the affected sediments based on sampling and analyses performed in advance of the notice; (b) Document the steps to be taken to ensure that both the activity and the subsequent management and disposal of dredged spoils will be conducted in a manner protective of human health and the environment; and (c) Evaluate the effect of the activity on the Portland Harbor Remedial Investigation and Feasibility Study. Dredging may proceed under existing permits subject to the above notice and implementation of any additional dredging or management practices required by DEQ. DEQ shall also be notified of and copied on any permit application to the Oregon Division of State Lands or United States Army Corps of Engineers for dredging or other activity disturbing sediments adjacent to the Schnitzer site. Notwithstanding the foregoing, Schnitzer may conduct dredging or other activities that might disturb sediments at or near the facility without giving DEQ 60 days' notice, if such activities are conducted in accordance with an effective Dredging Agreement between Schnitzer and DEQ that describes the notification and sampling requirements, dredging, management, and disposal practices, and any other measures that Schnitzer will take to ensure that all activities within the scope of the Dredging Agreement are conducted in a manner that is protective of human health and the environment and consistent with Harborwide cleanup work.

B. Public Participation

Upon execution of this Agreement, DEQ will provide public notice of this Agreement through issuance of a press release, at a minimum to a local newspaper of general circulation, describing the measures required under this Agreement. Copies of the Agreement will be made available to the public. DEQ shall provide Schnitzer a draft of such press release and consider any comments by Schnitzer on the draft press release, before publication.

C. DEQ Access and Oversight

1. Schnitzer shall allow DEQ to enter all portions of the facility at all reasonable times for the purposes, among other things, of inspecting records relating to work under this Agreement; observing Schnitzer's progress in implementing this Agreement; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by Schnitzer; and, using camera, sound recording, or other recording equipment for purposes relating to work under this Agreement. Upon Schnitzer's verbal request, DEQ shall make available to Schnitzer a split or duplicate of any sample or recording taken by DEQ pursuant to this Agreement. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before entering the facility. DEQ shall adhere to all health and safety requirements of the facility, as identified in the applicable Health and Safety Plan, including, but not limited to, requirements in portions of the Site where outside visitors must be accompanied by company personnel.

2. Schnitzer shall permit DEQ to inspect and copy all records, files, photographs, documents, and data in connection with work under this Agreement, except that Schnitzer shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege. DEQ shall use its best efforts, but not be obligated, to provide reasonable notice before records inspection and copying requests.

3. Attorney-client and work product privileges may not be asserted with respect to any records required under Paragraphs II.G.1 and II.G.2 of this Agreement. Schnitzer shall identify to DEQ--by addressor-addressee, date, general subject matter, and distribution--any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by Schnitzer.

D. Project Managers

1. To the extent possible, all reports, notices, and other communications required under or relating to this Agreement shall be directed to:

DEQ Project Manager:	Schnitzer Project Manager:
Alicia C. Voss Voluntary Cleanup and Portland Harbor Section 2020 SW Fourth, Suite 400 Portland, Oregon 97204 503-229-5011	Tom Zelenka Schnitzer Investment Corporation P.O. Box 10047 Portland, Oregon 97296-0047 503-224-9900

2. Schnitzer's and DEQ's Project Managers shall be available and have the authority to make day-to-day decisions necessary to complete the Scope of Work under this Agreement.

E. Notice and Samples

Schnitzer shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Agreement at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon DEQ's verbal request, Schnitzer shall make available to DEQ a split or duplicate of any sample taken pursuant to this Agreement. DEQ shall make every effort to complete analysis of any split or duplicate sample on a schedule consistent with Schnitzer's schedule for related activities. DEQ shall provide Schnitzer with copies of all analytical data from such samples as soon as practicable.

F. Quality Assurance

Schnitzer shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/ Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Agreement shall be consistent with DEQ's "Quality Assurance Policy No. 760.00". Schnitzer shall ensure that each laboratory used by Schnitzer for analysis performs such analyses in accordance with such provisions.

G. Records

1. In addition to those technical reports and documents specifically required under this Agreement, Schnitzer shall provide to DEQ within thirty (30) days of DEQ's written request copies of documents generated in connection with the

work required under this Agreement, including QA/QC memoranda and QA/QC audits, draft and final deliverable plans, final reports, task memoranda, field notes, and laboratory analytical data that have undergone data quality validation.

2. If DEQ determines that review of raw data or preliminary laboratory reports is necessary in order to ensure protection of public health, safety, and welfare and the environment, that information will be provided by Schnitzer within_ten (10) days of DEQ's written request.

3. Schnitzer and DEQ shall preserve all records and documents in possession or control of Schnitzer and DEQ, respectively, or their employees, agents, or contractors that relate in any way to activities under this Agreement for at least five (5) years after termination under Subsection II.R. of this Agreement; provided that after such 5-year period, Schnitzer and DEQ shall provide the other sixty (60) days notice before destruction or other disposal of such records and make them available for inspection and copying.

4. Schnitzer may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Agreement. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If Schnitzer does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to Schnitzer.

H. Progress Reports

During each quarter of this Agreement, Schnitzer shall deliver to DEQ on or before the fifteenth (15th) day following the end of the calendar quarter two,(2) copies of a progress report containing the following items. DEQ anticipates that the progress report will not exceed 2 pages in length.

1. Actions taken under this Agreement during the previous quarter;

2. Actions scheduled to be taken in the next quarter;

3. Sampling, test results, and any other data generated by Schnitzer during the previous quarter; and

4. A description of any problems experienced during the previous quarter and the actions taken to resolve them.

I. Other Applicable Laws

Subject to ORS 415.315(3), all actions under this Agreement shall be performed in accordance with all applicable federal, state, and local laws and regulations.

J. Reimbursement of DEQ Oversight Costs

1. Prior to entry of this Agreement, DEQ shall submit to Schnitzer an estimate of costs incurred by DEQ to date for site assessment activities and preparation and negotiation of this Agreement. Upon entry of this Agreement, DEQ shall submit to Schnitzer a statement for costs actually and reasonably incurred by DEQ prior to entry of this Agreement for site assessment activities and preparation and negotiation of this Agreement and an estimate of future DEQ oversight costs associated with Schnitzer's implementation of this Agreement.

2. DEQ shall submit to Schnitzer a monthly statement of costs incurred after issuance of this Agreement by DEQ in connection with oversight of Schnitzer's implementation of this Agreement. Each invoice will include a summary of costs billed to date. DEQ's invoice for direct costs will include a direct labor summary showing the persons charging time, the amount of time, and the nature of the work performed.

3. DEQ or State of Oregon oversight costs payable by Schnitzer shall include both direct and indirect costs. Direct costs shall include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs shall include those general management and support costs of the DEQ and of the applicable administering division (e.g. Waste Prevention and Management Division, Environmental Cleanup Division, Northwest Region) that are allocable to DEQ oversight of this Agreement and not charged as direct, site-specific costs. Indirect costs shall be based on a percentage of direct personal services costs. DEQ oversight costs also shall include the surcharge required by ORS 465.333.

4. Within thirty (30) days of receipt of a DEQ statement, Schnitzer shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund". Schnitzer shall pay simple interest of 9% per annum on the unpaid balance of any oversight costs, which interest shall begin to accrue at the end of the 30-day payment period.

K. Force Majeure

1. If any event occurs that is beyond Schnitzer's reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Agreement, Schnitzer shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which Schnitzer proposes to carry out such measures. Schnitzer shall confirm in writing this information within five (5) working days of the verbal notification.

2. If Schnitzer demonstrates to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the reasonable control and despite the due diligence of Schnitzer, DEQ shall extend times for performance of related activities under this Agreement as appropriate. Circumstances or events beyond Schnitzer's control might include but are not limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond Schnitzer's reasonable_control.

L. Prior Approval

Where DEQ review and approval is required for any plan or activity under this Agreement, Schnitzer shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by Schnitzer. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action as soon as is practicable.

M. Dispute Resolution

In the event of disagreement between Schnitzer and DEQ regarding implementation of this Agreement, Schnitzer and DEQ shall, in the following order: 1) make a good faith effort to resolve the dispute between Project Managers; 2) if necessary, refer the dispute for resolution by the immediate supervisors of the Project Managers; 3) if necessary, provide each other their respective positions in writing and refer the dispute for resolution by DEQ's Administrator of the Waste Prevention and Management Division or the appropriate Region Administrator and

Schnitzer's (ADMINISTRATOR'S COUNTERPART); and 4) if necessary, refer the dispute for resolution by DEQ's Director and Schnitzer's (DIRECTOR'S COUNTERPART). DEQ's final decision after such dialogue shall be enforceable under this Agreement. The time required for dispute resolution shall correspondingly extend Schnitzer's schedule for all pending, affected deliverables or activities.

N. Enforcement of Agreement and Reservation of Rights

1. In the event of Schnitzer's failure to comply with this Agreement (including any failure to reimburse oversight costs), DEQ may enforce this Agreement as an order under ORS 465.260(5) or may terminate this Agreement after thirty (30) days written notice to Schnitzer.

2. In the event of DEQ's failure to provide oversight in accordance with this Agreement, Schnitzer may terminate this Agreement after thirty (30) days written notice to DEQ. Costs incurred or obligated by DEQ before the effective date of any termination of this Agreement shall be owed under the Agreement notwithstanding such termination.

3. Schnitzer does not admit any facts (including those recited herein), legal issues, liability, or violation of law by virtue of entering this Agreement.

4. Except as otherwise provided in Subsection II.O., nothing in this Agreement shall prevent Schnitzer from exercising any rights of contribution or indemnification Schnitzer might have against any person, including the State of Oregon, regarding the release(s) of hazardous substances that are the subject of this Agreement; provided Schnitzer waives any right it might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund for costs incurred under this Agreement.

5. Schnitzer agrees not to litigate, in any proceeding brought by DEQ to enforce this Agreement, any issue other than Schnitzer's or DEQ's compliance with this Agreement.

6. In the event that the Schnitzer site becomes part of a federal National Priority List (NPL) site, DEQ agrees to cooperate with Schnitzer to encourage EPA to accept satisfactory and complete performance under this Agreement as fulfillment of Schnitzer's obligation to perform the same work under a subsequently issued EPA Order or Consent Decree. If EPA does not agree that such performance under this Agreement fulfills the EPA-imposed obligations, the Agreement

may be modified pursuant to Subsection II.Q. or terminated at the election of DEQ or Schnitzer. Notwithstanding the foregoing, if the Portland Harbor area becomes part of a federal NPL site, but (1) the Schnitzer site is not itself included in the area expressly covered by the NPL listing (e.g. the Harbor is listed but upland sites are not) or (2) DEQ remains the lead agency with respect to the Schnitzer site, this Agreement shall remain in full force and effect, however; if EPA orders any conflicting or overlapping activities, this Agreement shall be modified, as necessary, to prevent conflicting or duplicative obligations. Any other additional EPA-imposed obligations may be addressed by modification of this Agreement under Subsection II.Q.or by separate agreement or order.

O. Hold Harmless

1. Schnitzer shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of Schnitzer or its officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by Schnitzer or its agents in carrying out activities under this Agreement.

2. To the extent permitted by Article XI, Section 7, of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless Schnitzer and its officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of the State of Oregon or its commissions, agencies, officers, employees, contractors, or agents (except for acts approving or omissions constituting approval of any activity of Schnitzer under this Agreement). Schnitzer shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Agreement.

P. Parties Bound

This Agreement shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Agreement. No change in ownership or corporate or partnership status relating to the facility shall in any way alter Schnitzer's obligations under this Agreement, unless otherwise approved in writing by DEQ.

Q. Modification

DEQ and Schnitzer may modify this Agreement by mutual written agreement.

R. Duration and Termination

Upon completion of work under this Agreement, Schnitzer shall submit to DEQ a written notice of completion. This Agreement shall be deemed satisfied and terminated upon payment of all oversight costs owed and upon DEQ's issuance of a letter acknowledging satisfactory completion of activities in accordance with this Agreement. Such letter shall be issued within sixty (60) days of receipt of notice of completion evidencing satisfactory completion of activities in accordance with this Agreement and payment of outstanding DEQ oversight costs, or as soon thereafter as is reasonably practicable. In the event that DEQ is unable to issue such letter within sixty days of receipt of Schnitzer's written notice of completion, DEQ shall provide Schnitzer with a written schedule upon which DEQ anticipates review of Schnitzer's work and issuance of that letter.

Schnitzer

By: Tom Zelenka Date: June 5, 2000
Tom Zelenka (Name)

Manager-Legislative/Environmental and Public Affairs
(Title)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Neil Mullane Date: 6/13/2000
(Name)

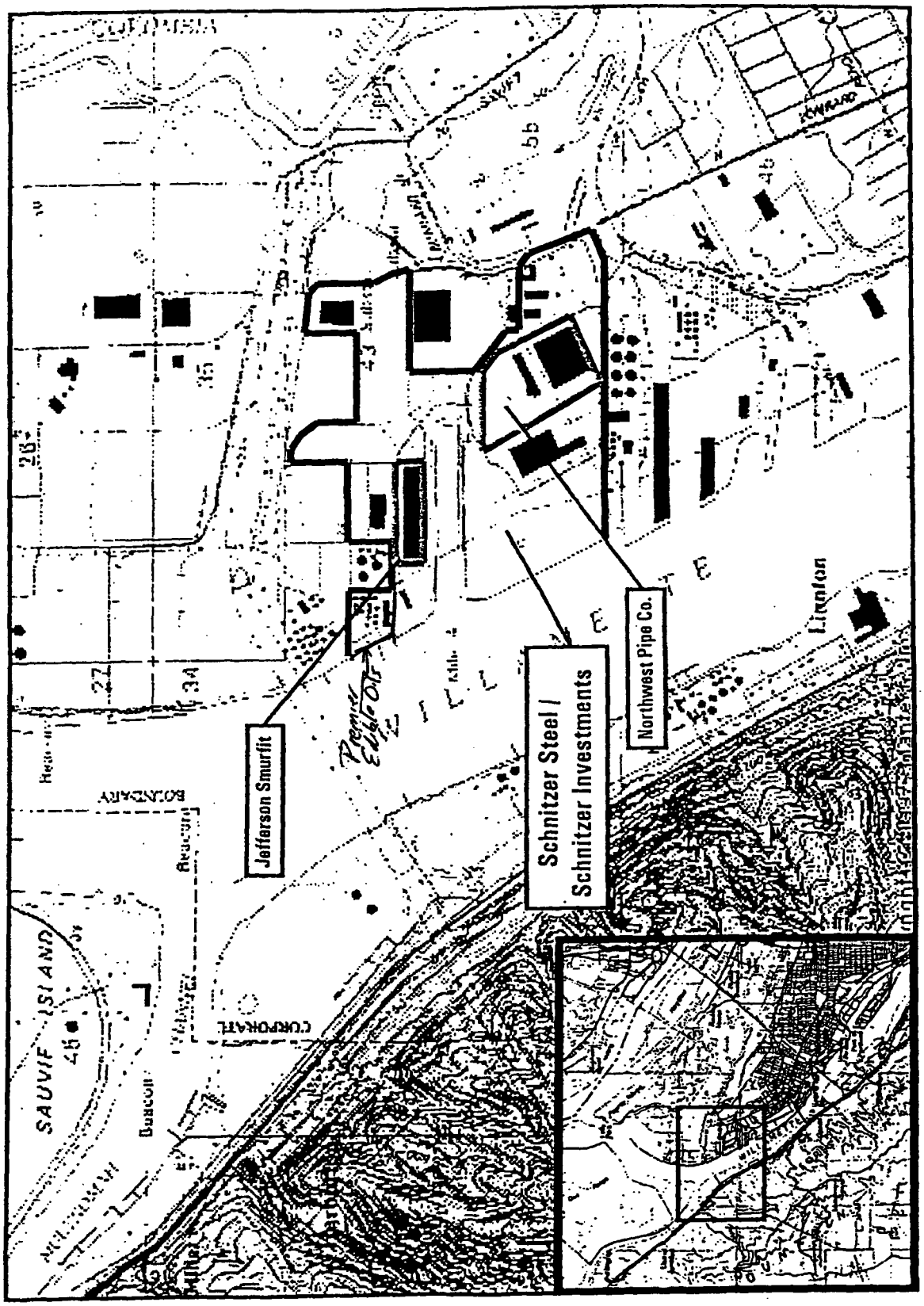
Administrator NWR
(Title)

KBB/GEN30415

SCHN00152688

Figure 1 Site Location

Attachment A



ATTACHMENT B

SCOPE OF WORK FOR REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

I. SCHEDULE

Respondent shall submit for DEQ review and approval Remedial Investigation (RI), Risk Assessment (RA), and Source Control Measures (SCM) work plans and reports which address all elements of this Scope of Work (SOW). Elements of the SOW may be addressed by alternative means or by using existing data or information to the extent that the data are applicable, meet the objectives of the RI, and are of acceptable QA/QC.

All work completed under this Agreement shall proceed in accordance with the schedule below:

RI Assessment Work Plan (if Respondent elects to perform a Pre-RI Assessment)	A Pre-RI Assessment Work Plan will be submitted to DEQ within 30 days of the issuance of this Agreement.
DEQ Review and Comment	To Respondent within 30 days of receipt of Pre-RI Assessment Work Plan.
Pre-RI Assessment Report	To be specified in Pre-RI Assessment Work Plan.
RI Proposal	An RI proposal will be submitted to DEQ within 30 days of issuance of this Agreement or, if a Pre-RI Assessment is performed and DEQ determines that an RI is necessary, based on the results of a Pre-RI Assessment, within 30 days of approval of the Pre-RI Assessment Report.
DEQ Review and Comment	To Respondent within 30 days of receipt of RI Proposal.
Draft RI Work Plan	To DEQ within 45 days of receipt of DEQ comments on RI Proposal.
DEQ Review and Comment	To Respondent within 30 days of receipt of draft RI Work Plan.
Final RI Work Plan	To DEQ within 30 days of receipt of DEQ comments on draft RI Work Plan.
Initiation of RI	To be specified in Project Management section of RI Work Plan.
Initiation of SCM	To be specified in Project Management section of RI Work Plan.

The schedule for additional deliverables specified in this SOW (e.g., Risk Assessment work plan, Remedial Investigation report, Risk Assessment report, and Source Control Measure work plan) should be specified in the Project Management Plan section of the RI work plan.

All work plans may be amended by Respondent as necessary to reflect or incorporate newly discovered information and/or environmental conditions. Additional work plans and work plan amendments are subject to DEQ review and approval and shall be processed according to schedules negotiated between the parties at the time of each phase change or task addition. Respondent shall initiate and complete work according to the schedule specified in the applicable approved work plan or amendment. Future schedules or deadlines for all submittals, work plans or other requirements shall be adjusted accordingly for the time necessary for preparation, approval and implementation of additional work plans, investigations and/or reports not contemplated in the original schedule and shall be approved by DEQ in writing.

II. OBJECTIVES

Work performed under this Agreement shall complement and incorporate existing facility information with the following specific objectives. For purposes of this Scope of Work, the "facility" shall exclude that portion of the facility that is below the mean high-water mark of the Willamette River. The parties acknowledge that a separate Portland Harbor Sediment RI/FS is proceeding with respect to the portion of the Willamette River below the mean high-water mark, and it is not the purpose of this Scope of Work to duplicate any of that work:

A. Identify and characterize all hazardous substance source areas at the **Schnitzer** facility. Source areas shall be characterized through a review of historical information and the collection of environmental samples for chemical, geotechnical, and other analyses. The evaluation of source areas shall focus on upland operations that may have resulted in a release of hazardous substances.

B. Evaluate all contaminant migration pathways at the **Schnitzer** facility. Key elements relevant to contaminant migration include, but are not limited to, the rate and direction of groundwater flow, subsurface contaminant migration to the Willamette River, overland contaminant migration to the Willamette River, storm water discharge to the Willamette River, direct and indirect release to the Willamette River, preferential migration pathways, volatilization, dust entrainment, and riverbank seepage.

C. Determine the nature, extent, and distribution of hazardous substances in affected media at the **Schnitzer** facility. This analysis should focus on the vertical and horizontal extent of source area contamination, groundwater contamination, and surface and subsurface soil contamination.

D. Identify all current and reasonably likely future human and ecological receptors at the **Schnitzer** facility. Receptors shall include human and ecological receptors that may be exposed to hazardous substances at the facility. This analysis should consider all relevant contaminant migration pathways and the nature, extent and distribution of hazardous substances in affected media.

E. Collect sufficient data and historical information to allow the identification of possible areas of sediment contamination adjacent to the **Schnitzer** facility. Areas of potential sediment contamination shall be characterized through the Portland Harbor Sediment RI/FS. Data collection and evaluation shall consider the potential for contaminant migration to the Willamette River and over or in-water releases of hazardous substances resulting from operations at the **Schnitzer** facility. Respondent may be required to perform limited sediment or benthic sampling adjacent to the facility as necessary to address an objective of this Scope of Work but will not be required to conduct sediment or benthic sampling that is duplicative of sampling under the Portland Harbor sediment RI/FS.

F. Evaluate the risk to human health and the environment from releases of hazardous substances at or from the **Schnitzer** facility through the performance of human health and ecological risk assessments.

G. Identify hot spots of contamination, if any, at the **Schnitzer** facility.

H. Generate or use data of sufficient quality for site characterization and risk assessment at the **Schnitzer** facility.

I. Develop the information necessary to evaluate and design necessary source control measures to address contaminant releases from the **Schnitzer** facility.

J. Implement necessary source control measures to address contaminant releases from the **Schnitzer** facility.

III. Pre-RI Assessment Work Plan and Report

Respondent may elect to perform a Pre-RI Assessment as the initial task under this Agreement. The primary purpose of the Pre-RI assessment is to determine which media and pathways (e.g., groundwater, surface water, air, and direct contact) are affected by site related hazardous substances. The Pre-RI Assessment will include a review of the facility history, review of current facility conditions, and may include focused sampling activities, to assess potential past and present sources of hazardous substances and determine if there has been a release from these sources to surface water or sediments, as appropriate.

If Respondent elects to perform a Pre-RI Assessment, Respondent shall submit a Pre-RI Assessment Work Plan for DEQ review and approval. The Pre-RI

Assessment Work Plan shall describe the objectives, deliverables, schedule, and specific tasks that will be performed for the Pre-RI Assessment. If the Pre-RI Assessment includes sampling, the work plan shall describe the sampling locations and the methodologies that will be used for the sampling and analysis.

The Pre-RI Assessment report will present the results of the Pre-RI Assessment including figures and tables presenting the results of any sampling and analysis. The report will present conclusions regarding the likelihood of past or present source(s) and pathway(s) for the release of hazardous substances to sediments adjacent to Respondent's facility and whether a re-evaluation of the priority of Respondent's facility is appropriate.

The results of the Pre-RI Assessment shall be used to determine whether further action is needed to assure protection of present and future public health, safety and welfare, or the environment. No further work shall be required under this Agreement and SOW if, based on historical information and the results of the Pre-RI Assessment or subsequent facility investigation, DEQ reasonably determines that there is no likely present source and pathway for the release of hazardous substances to surface water or sediments at or from Respondent's facility for which DEQ could require a removal action or remedial investigation under ORS 465.200 et seq. Further, should the pre-RI assessment or subsequent facility investigation provide enough information to re-evaluate the priority of the facility, Respondent may request that DEQ perform this evaluation. Should it be determined by DEQ that the facility no longer presents a high priority threat to present and future public health, safety, and welfare or the environment, no further RI work with respect to the uplands portions of the facility shall be required under this Agreement and SOW.

IV. REMEDIAL INVESTIGATION PROPOSAL

If DEQ determines that further RI work is required (or if Respondent elects not to perform a Pre-RI Assessment), Respondent shall prepare an RI proposal. The RI Proposal shall briefly discuss Respondent's proposed approach to the RI, addressing soil, groundwater, surface water, sediments, and air. The proposal will provide the framework for the RI Work Plan and will include at a minimum, a summary of data collected to date, a conceptual site model (including a conceptual site hydrogeologic model), a description of RI goals and objectives and an estimated schedule for completion of the RI. The RI proposal shall consider methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Investigation Work Plan.

V. REMEDIAL INVESTIGATION WORK PLAN

The work plan shall be developed in accordance with applicable Oregon Administrative Rules (OAR 340-122-010 through -115), DEQ guidance, and the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER Directive 9355.3-01, 1988, as appropriate. Existing data may be used if it meets data quality objectives for the RI. The results of the

RI shall be utilized to guide data collection efforts performed as part of the Portland Harbor RI/FS Work Plan. The need for the RI Work Plan shall be evaluated based on the results of the pre-RI Assessment. The submitted work plan shall include, but not be limited to the following items:

A. PROJECT MANAGEMENT PLAN

The RI Work Plan shall include a proposed schedule for submittals and implementation of all proposed activities and phases pertaining to this scope of work (this schedule will include target dates for the submittal of a Risk Assessment work plan, and submittal of draft and final Remedial Investigation, and Risk Assessment reports); a description of the personnel (including subcontractors, if known) involved in the project, and their respective roles in the project; and a discussion of how variations from the approved work plan will be managed.

B. SITE DESCRIPTION

The RI work plan shall include a discussion of the current understanding of the physical setting of the facility and surrounding area; the facility history; hazardous substance and waste management history; facility operations conducted on, in, over or adjacent to the Willamette River and current facility conditions.

C. SITE CHARACTERIZATION PLAN

The Site Characterization plan shall be consistent with DEQ guidance and the requirements specified in OAR 340-122-080. The site characterization plan shall include, but not be limited to, characterization of the hazardous substances, characterization of the facility, identification of potential receptors and the collection and evaluation of information relevant to the identification of hot spots of contamination, and shall address the following:

1. **Soils**

Objective: To identify and characterize releases of hazardous substances from the facility to soils.

Scope: The plan shall supplement previous soil sampling at the facility. The plan shall address all areas of the facility which could potentially have received spills, leaks from tanks or piping, been used for waste treatment or disposal, or have been affected by contaminated surface water or storm water runoff, and all other areas of the facility where soil contamination is known or suspected.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of soil contamination, determine the extent to which soil contamination may contribute to

Willamette River sediment contamination, characterize the facility geology, determine the physical and chemical soil characteristics relevant to the RI, evaluate the potential for contaminant migration and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing soil.

2. **Groundwater**

Objective: To identify and characterize releases of hazardous substances from the facility to groundwater.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases of hazardous substances to groundwater from the facility.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of groundwater contamination, both on and, if applicable, off-site; estimate the rate of contaminant flux to the Willamette River; determine the extent to which free phase product is migrating to the Willamette River; characterize the facility hydrogeology, determine the physical and chemical water bearing zone characteristics relevant to the RI; evaluate the potential for contaminant migration through groundwater; and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing groundwater. Alternative methods for characterizing groundwater should be considered to accelerate the RI. Monitoring wells and other holes must be drilled, constructed and decommissioned in accordance with OAR Chapter 690, Division 240 and DEQ "Ground Water Monitoring Well, Drilling, Construction and Decommissioning" guidelines (DEQ 1992).

3. **Surface Water**

Objective: To identify and characterize releases of hazardous substances from the facility to surface water.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current, and potential impacts to surface waters from the facility.

Procedures: The plan shall be designed to determine the extent to which surface water may have been impacted by releases of hazardous substances at the facility; determine the nature and extent of surface water contamination; characterize the facility hydrology; determine the physical and chemical surface water characteristics relevant to the RI including flow characteristics; evaluate the potential for contaminant migration and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing surface water.

4. **Sediments**

Objective: To identify and characterize releases of hazardous substances from the facility to sediments.

Scope: The plan shall supplement previous investigations at the facility, shall identify and characterize all past, current, and potential releases of hazardous substances to sediments from the facility in a manner consistent with the Portland Harbor Sediment RI/FS. Characterization of the nature and extent of sediment contamination shall not be subject to this Agreement, but is contemplated to be completed through the Portland Harbor Sediment RI/FS.

Procedures: The plan shall be designed to identify sources of sediment contamination from the facility, and characterize release mechanisms from the facility to sediments. The plan shall include the proposed methodology for characterizing releases to sediments and as applicable shall utilize methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Remedial Investigation and Feasibility Study Work Plan.

5. **Air**

Objective: To identify and characterize any unpermitted release of hazardous substances to the air, from soil, surface water, or groundwater contamination at the facility.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases (e.g. contaminated soil or groundwater) of hazardous substances to air.

Procedures: The plan shall include the proposed methodology for evaluating air emissions using appropriate emission calculations and/or a field sampling program. The plan shall be designed to delineate the nature and extent of contamination, characterize the site climatology, determine the physical and chemical air characteristics relevant to the RI, evaluate the potential for contaminant migration to the Willamette River and surrounding areas and gather the information necessary to identify hot spots of contamination.

6. **Identification of Current and Reasonably Likely Future Land and Water Use**

Objective: To identify current and reasonably likely future land and water uses in the locality of the facility not including those of the Willamette River.

Scope: The plan shall be designed to identify current and reasonably likely future land and water uses for the purposes of

identifying hot spots of contamination and conducting the baseline human health and ecological risk assessments based on OAR 340-122-080, DEQ Guidance, and the Portland Harbor Sediment Management Plan.

Procedures: The plan shall include the proposed methodology for identifying current and reasonably likely future land and water uses in the locality of the facility.

D. SAMPLING AND ANALYSIS PLAN (SAP)

Objective: To adequately document all sampling and analysis procedures.

Scope: In preparation of the SAP, the following guidance documents shall be utilized: Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/004 (OSWER Directive 9355.0-7B), March, 1987; Test Methods for Evaluating Solid Waste, SW-846; and A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001 (OSWER Directive 9355.0-14), December, 1987. The SAP shall address all topics listed in Environmental Cleanup Division Policy #760.000, Quality Assurance Policy.

Procedures: The work plan shall include a sampling and analysis plan (SAP). The SAP shall include quality assurance and quality control (QA/QC) procedures for both field and lab procedures. The SAP shall be sufficiently detailed to function as a manual for field staff.

E. HEALTH AND SAFETY PLAN (HASP)

Objective: To establish policies and procedures to protect workers and the public from the potential hazards posed by a hazardous materials site.

Scope: The HASP portion of the work plan shall comply with 29 CFR 1910.120 and OAR Chapter 437, Division 2.

Procedures: The HASP shall include a description of risks related to RI activities, protective clothing and equipment, training, monitoring procedures, decontamination procedures and emergency response actions.

F. MAPS

The work plan shall include a map or maps of the facility, which clearly shows facility topography, on-site structures, waste disposal areas and proposed sampling locations.

VI. EVALUATION AND IMPLEMENTATION OF SOURCE CONTROL MEASURES

Objective: To implement necessary source control measures to address contaminant migration to the Willamette River that warrants removal action under OAR 340-122-070.

Scope: The plan shall gather sufficient information to evaluate, design and implement necessary source control measures.

Procedures: The plan shall be designed to and conducted to characterize all release mechanisms to the Willamette River. Characterization data shall be adequate to evaluate, design and implement necessary source control measures. Source control measures shall address contaminant migration to the river through overland transport, storm water runoff, free phase product migration, direct release, and/or dissolved groundwater contaminant migration that warrant removal action under OAR 340-122-070.

Termination: Respondent's obligations with respect to any source control measures implemented under this SOW shall terminate upon implementation of a remedy or entry of a consent decree, unilateral order, or other order that requires remedial action with respect to the facility that effectively serves to control that source.

VII. RISK ASSESSMENT WORK PLAN

A. UPLAND HUMAN HEALTH RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the facility, for the purposes of characterizing current or reasonably likely future risks to human health as a result of a threatened or actual release(s) of a hazardous substance at or from the facility; documenting the magnitude of the potential risk at the facility; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The human health risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The human health risk assessment portion of the work plan shall be developed based on the requirements specified in OAR 340-122-084, DEQ guidance, and the Risk Assessment Guidance for Superfund - Human Health Evaluation Manual Part A, United States Environmental Protection Agency (EPA) Interim Final, July 1989 (RAGS-HHEM). A suggested outline for the human health evaluation is given in Exhibit 9-1 of the RAGS-HHEM. The work plan should use this outline as a framework for discussing the methodologies and assumptions to be used in assessing the potential human health risks at the facility.

Procedure: The plan shall describe the different tasks involved in preparing the human health risk assessment. The human health risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

The upland human health risk assessment shall be designed to achieve the following:

1. Develop appropriate exposure units considering the nature, extent, and distribution of contamination and the reasonably likely future land and water use in the locality of the facility;
2. Establish data quality objectives for each exposure unit identified;
3. Collect data appropriate to satisfy the data quality objectives for each exposure unit;
4. Identify contaminants of interest for each media of concern;
5. Develop exposure scenarios based on current and reasonably likely land use, facility features and populations potentially exposed;
6. Identify appropriate exposure factors for all exposure pathways to be evaluated;
7. Identify the appropriate toxicity factors for all exposure pathways to be evaluated; and
8. Quantify the risks to human health at the facility.

B. UPLAND ECOLOGICAL RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the facility, for the purposes of characterizing current or reasonably likely future risks to the environment as a result of a threatened or actual release(s) of a hazardous substance at or from the facility; quantifying the potential risk at a facility; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The ecological risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The ecological risk assessment will use a tiered approach (with four levels) to produce a focused and cost-effective assessment of risk. The ecological risk assessment work plan shall be developed based on the requirements specified in rule under OAR 340-122-084 and DEQ guidance.

Procedure: The plan shall describe the different tasks involved in preparing the ecological risk assessment. Ecological risk assessments may include a level I scoping plan; a level II screening plan; a level III baseline plan; and a level IV field

baseline plan. The level III and level IV baseline plans shall include an exposure analysis, an ecological response analysis, a risk characterization and an uncertainty analysis as required by OAR 340-122-084(3). The ecological risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

Terrestrial habitats and receptors shall be evaluated through the following approach:

1. Complete a Level I Scoping assessment per ODEQ guidance for the terrestrial portion of the facility.
2. Make a preliminary determination of locality of the facility with respect to terrestrial receptors and current and potential future exposure to facility-related contaminants.
3. Determine potential for presence/absence of terrestrial threatened or endangered species.

VIII. REPORTS

A. QUARTERLY REPORTS

Two (2) copies of the Quarterly Reports shall be submitted to DEQ by the 15th day of the quarter following the reporting period. The quarterly reports shall summarize activities performed, data results collected or received and problems encountered or resolved during the previous quarter and activities planned for the upcoming quarter.

B. REMEDIAL INVESTIGATION REPORT

The Remedial Investigation report shall follow the outline in Table 3-13 (page 3-30 - 3-31) in the CERCLA RI/FS guidance, as applicable, and address the items listed below:

1. **Executive Summary.**

2. **Introduction.**

3. **Facility Background.**

   A discussion and supporting maps of facility operations, facility description, facility setting, and current and reasonably likely future land and water uses.

4. **Study Area Investigation.**

   A discussion of the investigative procedures and results for soil, groundwater, surface water, sediments and air.

5. **Summary and Conclusions.**

A discussion of the nature, extent, distribution and environmental fate and transport of contaminants in soil, groundwater, surface water, sediments and air.

6. **Appendices.**

Detailed information supporting the results of the Remedial Investigation shall be submitted in the Appendices of the report.

C. RISK ASSESSMENT REPORT

1. **Human Health Risk Assessment Report**

The results of the human health risk assessment should follow DEQ risk assessment guidance for human health and RAGS-HHEM Part A.

2. **Ecological Risk Assessment Report**

The main sections of the ecological risk assessment report should follow specific DEQ guidance for report formats at each level (I-III).

D. REPORT DISTRIBUTION.

1. Three (3) bound copies and one (1) unbound copy of all reports should be submitted to DEQ.

2. DEQ requests that all copies be duplex printed on recycled paper.

STOEL RIVES LLP

ATTORNEYS

STANDARD INSURANCE CENTER
900 SW FIFTH AVENUE, SUITE 2600
PORTLAND, OREGON 97204-1268
Phone (503) 224-3380 Fax (503) 220-2480
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Internet: www.stoel.com

May 2, 2000

KRISTA I. BORN
Direct Dial
(503) 294-9675
e-mail kiborn@stoel.com

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Paul Slyman
Cleanup Policy and Program Development
Oregon Department of Environmental Quality
811 SW Sixth Ave.
Portland, OR 97204-1390

Re: Schnitzer Steel Industries-North Burgard
12005 N. Burgard Rd., Portland
ESCI ID No. 2355

Dear Mr. Slyman:

Schnitzer Steel Industries ("Schnitzer") is in receipt of the Oregon Department of Environmental Quality's ("DEQ") notice to add the above-listed property on the Confirmed Release List and Inventory. Schnitzer is unable to respond within the initial 45-day comment period and requests an extension of an additional 45 days. Please confirm in writing that DEQ received this request for an extension.

If you have any questions, please do not hesitate to call.

Very truly yours,

Krista I. Born

KIB:
cc: Mr. Tom Zelenka
Mr. Mathew Cusma

Portlnd3-1294506.1 0068160-00031

Chicago Title Insurance Company of Oregon
10001 SE Sunnyside Road Clackamas, Oregon 97015

Direct Line: (503) 794-5839 Fax: (503) 786-6132 E-Mail: brennane@ctt.com

October 16, 2000

Dear Pam,

Enclosed, please find the plat of Burgard Industrial Park. Let me know if you need anything else.

Emmett Brennan

1227-79

SURVEYOR'S CERTIFICATE:

I, Jim Weddle, hereby certify that I have correctly surveyed and marked with proper monuments the lands represented on the annexed subdivision, to be known henceforth as "BURGARD INDUSTRIAL PARK", in Section 35, Township 2 North, Range 1 West, Willamette Meridian, City of Portland, County of Multnomah and State of Oregon, more particularly described as follows:

Commencing at a point on the south line of said Section 35, said point bears South 89°53'00" East, 2098.27 feet from a brass screw found at the South 1/4 corner thereof; thence perpendicular to said south line, North 00°07'00" East, 401.72 feet to a 5/8 inch diameter iron rod 30 inches in length with a red plastic cap stamped "WEDDLE PLS 874", and the Initial Point of the following described subdivision; thence along the westerly line of North Burgard Road (Road No. 1307-403), North 22°47'26" West, 331.92 feet; thence along the westerly line of North Sever Road (Road No. 1379A) on the arc of a tangent 544.82 foot radius curve left, 60.84 feet through a central angle of 6°24'27" (chord bears North 25°59'39" West, 60.81 feet); thence North 29°11'53" West, 117.88 feet; thence South 60°48'07" West, 33.00 feet; thence North 29°11'53" West, 314.62 feet; thence on the arc of a tangent 273.10 foot radius curve left 46.31 feet through a central angle of 9°40'28" (chord bears North 34°02'05" West, 46.00 feet); thence radial to said curve, North 51°07'41" East, 25.00 feet; thence on the arc of a non-tangent 288.10 foot radius curve left 3.10 feet through a central angle of 00°35'42" (chord bears North 39°10'00" West, 3.10 feet) to the southeast corner of North Sever Court, a 20 foot wide dedicated street, recorded September 19, 1972 in Book 882, page 1130, Multnomah County Deed Records; thence along the south line of said street, North 89°49'00" West, 944.27 feet; thence South 67°41'00" West, 158.84 feet; thence North 22°19'00" West, 20.00 feet; thence North 67°41'00" East, 162.52 feet to the south line of a tract of land conveyed to Scott Pipe and Tank Corporation, by deed recorded June 25, 1962, in Book 2122 page 233, said Deed Records; thence along said south line, North 89°49'00" West, 5.62 feet; thence South 62°10'00" West, 10.20 feet to the southwest corner of said Scott tract; thence North 00°08'58" West, 115.01 feet to the northwest corner thereof; thence South 89°32'40" East, 256.82 feet to the northeast corner of said tract of land; thence along the east line of said tract, South 00°14'38" West, 4.03 feet to the northwest corner of a tract of land conveyed to Owen McIntyre Electrical Company by deed recorded June 8, 1959, in Book 1958 page 072, said Deed Records; thence along the north line thereof and the north line of a tract of land conveyed to McIntyre Electrical, Inc., by deed recorded June 6, 1968 in Book 623, page 28, said Deed Records, South 89°47'00" East, 117.83 feet to the southwest corner of North Sever Road, 70 feet wide; thence along the west line thereof, North 00°08'07" East, 90.00 feet to a point in the south line of a tract of land conveyed to Joseph T. Ryerson & Son, Inc., by deed recorded September 20, 1990, in Book 2347, page 2479, said Deed Records; thence along said south line, North 89°32'40" West, 347.84 feet; thence on the arc of a tangent 150.00 foot radius curve right 78.54 feet through a central angle of 30°00'00" (chord bears North 74°32'40" West, 77.65 feet); thence North 59°32'40" West, 333.06 feet; thence North 30°03'00" West, 149.18 feet to the southwest corner of the said Ryerson tract of land; thence along the west line thereof, North 01°13'48" West, 734.01 feet to the northwest corner thereof; thence along the north line of the said Ryerson tract of land, North 88°46'12" East, 1003.08 feet to the northeast corner thereof; thence along the west line of the Portland General Electric Company tract of land described in deed recorded October 4, 1967 in Book 589, page 347, said Deed Records, North 17°20'34" West, 342.07 feet; thence on the arc of a tangent 851.90 foot radius curve right, 351.78 feet through a central angle of 22°51'49" (chord bears North 06°00'39" West, 349.43 feet); thence North 5°22'18" East, 43.17 feet; thence North 15°19'26" East, 115.36 feet; thence on the arc of a tangent 197.60 foot radius curve left 330.74 feet through a central angle of 95°54'00" (chord bears North 32°41'34" West, 293.48 feet) to a point which bears South 9°21'28" West, 25.00 feet from the southerly line of a 50.00 foot wide easement conveyed to Portland General Electric Company by deed recorded February 11, 1941, Book 588 page 515, said Deed Records; thence parallel to said southerly line, North 80°38'34" West, 88.12 feet to Point "A", Deed Book 589, page 347, recorded October 4, 1967, being a point in the easterly boundary of a 35.00 foot wide tract of land conveyed to the Port of Portland by deed recorded February 11, 1943, in Book 800 page 258, said Deed Records; thence along said easterly line, South 9°21'26" West, 10.00 feet to the southeast corner thereof; thence along the South line thereof, North 80°38'34" West, 1734.45 feet to the northwest corner of a tract of land conveyed to Schnitzer Investment Corporation by deed recorded June 22, 1973 in Book 933, page 1902, said Deed Records; thence along the west line thereof, and its southerly extension, South 00°04'56" West, 1248.08 feet to the south line of a 60.00 foot wide road easement recorded June 1, 1950 in Book 1400, page 125, said Deed Records; thence along the south line of said road easement, North 89°55'04" West, 60.16 feet to an angle point in the northerly line of a tract of land conveyed to California Container Corporation by deed recorded June 1, 1950, in Book 1406, page 125, said Deed Records; thence along the northerly line thereof, South 63°08'14" East, 361.13 feet to the northeast corner of said tract of land; thence along the east line thereof, and its southerly extension, South 00°04'58" West, 201.97 feet to a point in the North line of Parcel A described in Book 1308, page 1333 recorded June 11, 1979, Multnomah County Deed Records; thence along the North line thereof, South 89°55'04" East, 115.06 feet; thence along the East line of Parcel A, South 00°04'56" West, 623.63 feet to the northerly line of a tract of land conveyed to the Multnomah Land & Equipment Company by deed recorded February 2, 1982, in Book 1576, page 2073, said Deed Records; thence along said northerly line, North 87°01'13" East, 908.84 feet; thence North 83°41'38" East, 28.32 feet; thence North 31°01'39" East, 28.30 feet; thence South 58°58'21" East, 28.90 feet to the northeast corner of said tract of land; thence along the easterly line of said tract of land, South 31°01'39" West, 34.33 feet; thence on the arc of a non-tangent 337.50 foot radius curve right, 97.19 feet through a central angle of 16°30'00" (chord bears South 66°30'21" East, 96.86 feet); thence South 58°15'21" East, 34.99 feet; thence on the arc of a tangent 250.00 foot radius curve right 119.99 feet through a central angle of 27°30'00" (chord bears South 44°30'21" East, 118.84 feet); thence South 30°45'21" East, 35.80 feet; thence South 26°15'21" East, 900.13 feet to the southeast corner of the said Multnomah Land & Equipment Company tract of land; thence along the southerly line thereof, South 65°55'19" West, 777.00 feet to the southwest corner thereof; thence leaving said tract of land, South 00°07'00" West, 52.32 feet; thence South 89°53'00" East, 1168.33 feet; thence on the arc of a tangent 485.00 foot radius curve left 239.16 feet through a central angle of 28°15'10" (chord bears North 75°58'29" East, 236.74 feet); thence North 61°51'50" East, 269.01 feet to the Initial Point.

As per ORS 92.060(3) and 92.070(2), I certify that the interior monuments in this subdivision will be set after completion of improvements and prior to ____________.

DECLARATION:

KNOW ALL PEOPLE BY THESE PRESENTS that SCHNITZER INVESTMENT CORP, a corporation organized and existing under the laws of the State of Oregon, does hereby make, establish and declare the annexed map of "BURGARD INDUSTRIAL PARK" as described in the accompanying Surveyor's Certificate, to be a true and correct map and plat thereof, all lots and tracts being of the dimensions shown and all public and private easements of the widths set forth and do hereby grant all easements not previously granted. This subdivision was created in accordance with ORS 92.
There is no water right appurtenant to this subdivision.

LINDA M. WAKEFIELD, VICE PRESIDENT
SCHNITZER INVESTMENT CORPORATION

ACKNOWLEDGEMENT:

STATE OF OREGON } S.S.
COUNTY OF MULTNOMAH }

KNOW ALL PEOPLE BY THESE PRESENTS, on this 23rd day of March, 1994, before me, a Notary Public in and for the State of Oregon, personally appeared Linda M. Wakefield, who being first duly sworn did say that she is Vice President of SCHNITZER INVESTMENT CORP named in the foregoing Declaration, and that her signature affixed to said instrument on behalf of said corporation, was her free act and deed.

WITNESS MY HAND AND OFFICIAL SEAL:

OFFICIAL SEAL
GARY W. CHEEL
NOTARY PUBLIC-OREGON
COMMISSION NO. 012540
MY COMMISSION EXPIRES NOV. 13, 1994

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JAMES O. WEDDLE
874
EXPIRES: 12/31/94

I HEREBY CERTIFY THIS MYLAR IS AN EXACT COPY OF THE ORIGINAL PLAT.

BURGARD INDUSTRIAL PARK

SITUATED IN
THE WILLIAM GATTON D.L.C.
and
THE JAMES LOOMIS D.L.C.,
SECTION 35, TOWNSHIP 2 NORTH, RANGE 1 WEST, W.M.,
CITY OF PORTLAND, COUNTY OF MULTNOMAH
and
STATE OF OREGON.
Surveyed: March 21, 1994

APPROVALS:

APPROVED this 25 day of July, 1994.
By: ____ LUR 93-605 ____
PLANNING DIRECTOR'S DELEGATE
CITY OF PORTLAND

APPROVED this 19th day of JULY, 1994.
By: ____
CITY ENGINEER'S DELEGATE
CITY OF PORTLAND

APPROVED this 18th day of OCTOBER, 1994.
By: ____
MULTNOMAH COUNTY SURVEYOR

APPROVED this ___ day of July, 1994.
____
HEARING OFFICER

APPROVED this 19th day of October, 1994.
____
CHAIR, BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON

All taxes, fees, assessments or other charges as provided by ORS 92.095 have been paid as of OCTOBER 19, 1994.

DIRECTOR
DIVISION OF ASSESSMENT AND TAXATION
MULTNOMAH COUNTY, OREGON
By: ____
DEPUTY

STATE OF OREGON
COUNTY OF MULTNOMAH

I do hereby certify that the attached subdivision plat was received for record and recorded October 19, 1994, at 11:04 AM. in Book 1227, on pages 96-104.

MULTNOMAH COUNTY RECORDS
COUNTY RECORDING OFFICE
By: ____
DEPUTY

DOCUMENT No. 94-156212

NARRATIVE:

This survey was accomplished for the purpose of subdividing those lands heretofore conveyed to Schnitzer Investment Corp by deeds recorded September 22, 1972, Book 882, page 791 and June 22, 1973, Book 933, page 1902, Multnomah County Deed Records, for conveyance purposes in compliance with City of Portland File No. 93-00605 SU, and applicable State, County and City statutes.

PROCEDURE:

Monuments were found per record of survey no. 44479, verified for location and used for the resolution of this survey, as indicated on the map. Interior property lines under the ownership of The Schnitzer Group were adjusted as approved by City of Portland Case File No. 93-00605 and recorded by separate instruments. Missing boundary monuments as established by record of survey no. 44479 were replaced, as required, and new lot and tract corners were established, as indicated on the annexed plat map.

Basis of bearings:
North 80°38'34" West along the northerly property line to conform to record of survey no. 44479.

Geodetic Control Monument tie is shown on Sheet 2 of 9.

SURVEYOR:
JIM WEDDLE & ASSOC., INC.
SUITE 105
1750 SW SKYLINE BLVD.
PORTLAND, OR 97221
(503) 292-8083

SHEET INDEX

SHEET 1: CERTIFICATE, DECLARATION, APPROVALS, NARRATIVE.
SHEET 2: PLAT BOUNDARY, LOT & TRACT CONFIGURATION, CURVE DATA.
SHEET 3: EASEMENTS OF RECORD.
SHEET 4: EASEMENTS OF RECORD.
SHEET 5: EASEMENTS OF RECORD.
SHEET 6: NEW EASEMENTS.
SHEET 7: NEW EASEMENTS.
SHEET 8: NOTES, EASEMENT DATA.
SHEET 9: DETAILS.

SCHN00152710

BURGARD INDUSTRIAL PARK

SITUATED IN
A PART OF THE WILLIAM GATTON D.L.C.
and
A PART OF THE JAMES LOOMIS D.L.C.,
SECTION 35, TOWNSHIP 1 NORTH, RANGE 1 WEST, W.M.,
CITY OF PORTLAND, COUNTY OF MULTNOMAH
and
STATE OF OREGON.
Surveyed: March 21, 1994

PREPARED BY:
JM WEDDLE AND ASSOC., INC.
1750 SW SKYLINE BLVD.
PORTLAND, OR 97221
(503) 292-8083

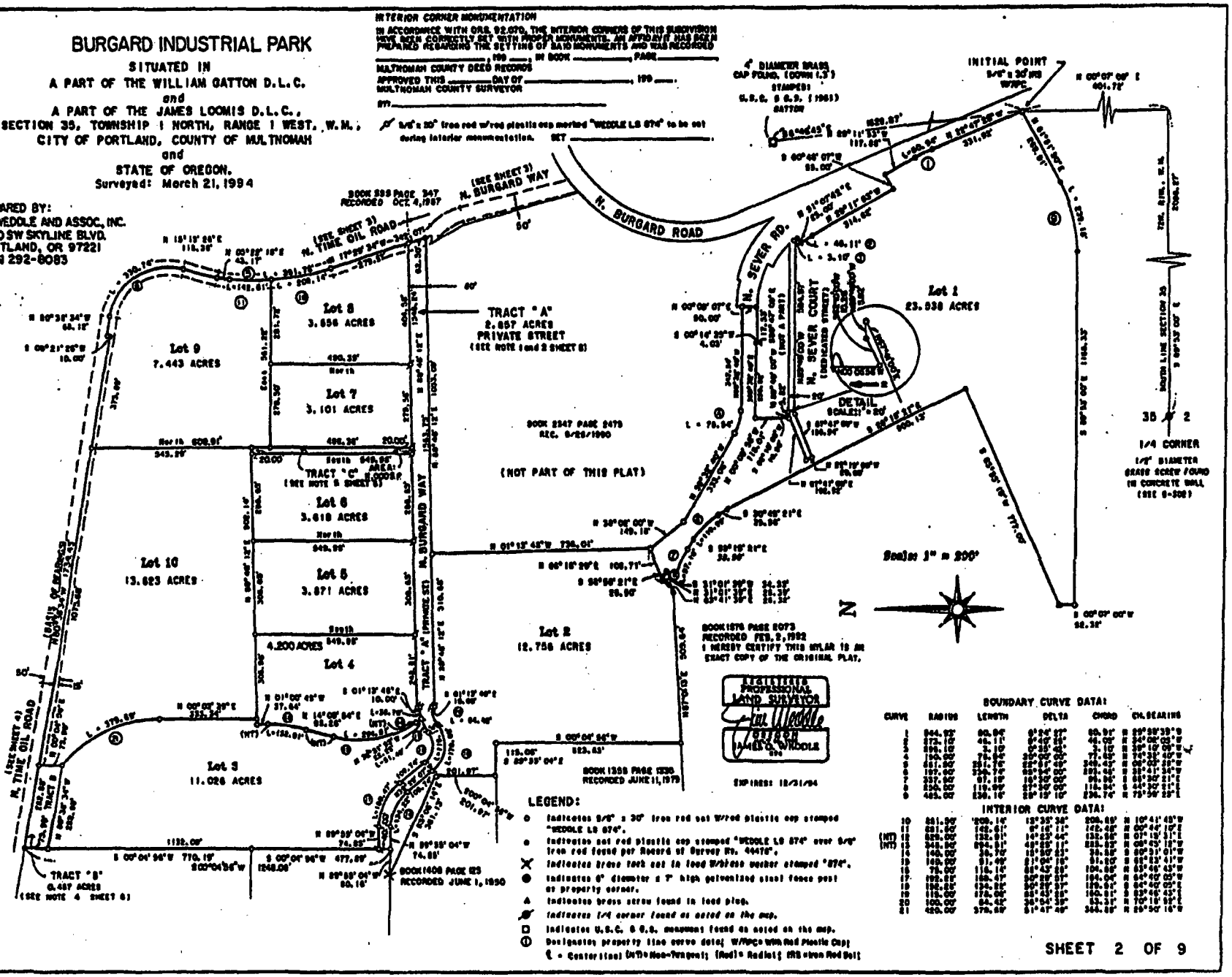
INTERIOR CORNER MONUMENTATION

IN ACCORDANCE WITH ORS. 92.070, THE INTERIOR CORNERS OF THIS SUBDIVISION HAVE BEEN CORRECTLY SET WITH PROPER MONUMENTS. AN AFFIDAVIT HAS BEEN PREPARED REGARDING THE SETTING OF SAID MONUMENTS AND WAS RECORDED _____, 199__, IN BOOK _____, PAGE _____ MULTNOMAH COUNTY DEED RECORDS

APPROVED THIS _____ DAY OF _____, 199__.
MULTNOMAH COUNTY SURVEYOR

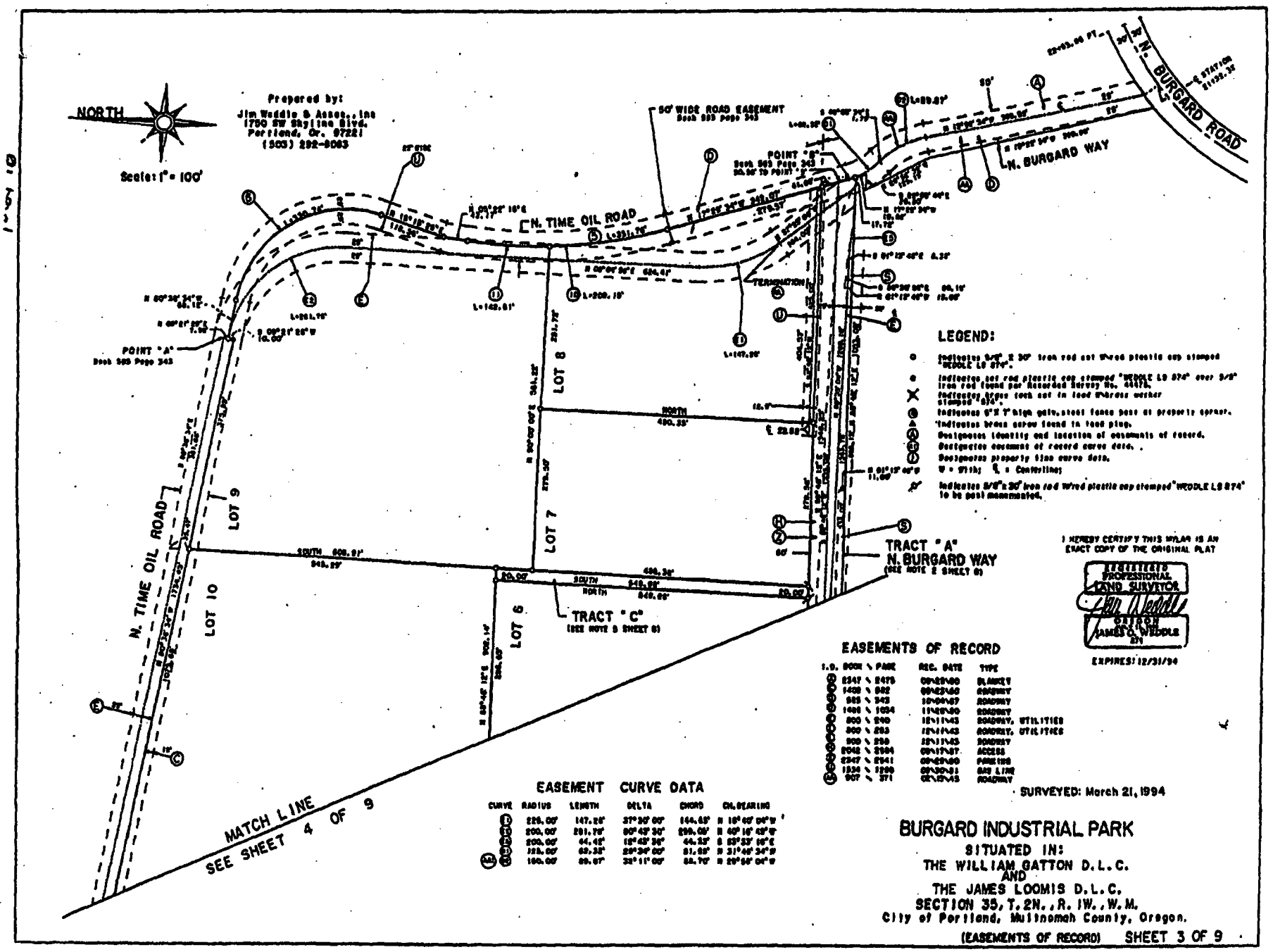
BY: _____

5/8" x 30" iron rod w/red plastic cap marked "WEDDLE LS 874" to be set during interior monumentation. SET _____.



SHEET 2 OF 9

SCHN00152711



SCHN00152712

Scale: 1" = 100'

NORTH

SEE SHEET 3 OF 9
MATCH LINE

LEGEND:

- Indicates 5/8" x 30" iron rod set w/red plastic cap stamped "WEDDLE LS 874".
- Indicates set rod plastic cap stamped "WEDDLE LS 874" over 5/8" iron rod found per Recorded Survey No. 44475.
- Indicates brass tack set in lead w/brass washer stamped "874".
- Indicates 6" x 7' high gate. Fence post found at property corners.
- Indicates brass screw found in lead plug.
- Designates identity and location of easements of record.
- Designates easement of record curve data.
- Designates property line curve data.
- W = with
- Indicates 5/8" x 30" iron rod w/red plastic cap stamped "WEDDLE LS874" to be post monumentation.

I HEREBY CERTIFY THIS MYLAR IS AN EXACT COPY OF THE ORIGINAL PLAT.

REGISTERED PROFESSIONAL LAND SURVEYOR
Jim Weddle
OREGON
JAMES C. WEDDLE
874

EXPIRES: 12/31/94

TRACT "B"
(SEE NOTE 4 SHEET 6)

TRACT "A"
N. BURGARD WAY
(SEE NOTE 2 SHEET 6)

N. TIME OIL ROAD

LOT 10 | LOT 3 | LOT 4 | LOT 5 | LOT 6 | LOT 2

SEE SHEET 5 OF 9
MATCH LINE

Prepared by:
Jim Weddle & Assoc., Inc
1700 SW Skyline Blvd.
Portland, Or. 97221
(503) 292-8063

EASEMENT CURVE DATA

CURVE	RADIUS	LENGTH	DELTA	CHORD	CH. BEARING
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

EASEMENTS OF RECORD

L.D.	BOOK \ PAGE	REC. DATE	TYPE
[illegible]	[illegible]	[illegible]	[illegible]

EASEMENTS OF RECORD

L.D.	BOOK \ PAGE	REC. DATE	TYPE
[illegible]	[illegible]	[illegible]	[illegible]

DETAIL
SCALE: 1" = 50'

BURGARD INDUSTRIAL PARK

SITUATED IN:
THE WILLIAM GATTON D.L.C.
AND
THE JAMES LOOMIS D.L.C.
SECTION 35, T. 2N., R. 1W., W.M.
City of Portland, Multnomah County, Oregon
Surveyed: March 21, 1994

(EASEMENTS OF RECORD) SHEET 4 OF 9

SCHN00152713

BURGARD INDUSTRIAL PARK

SITUATED IN:
THE WILLIAM GATTON D.L.C.
AND
THE JAMES LOOMIS D.L.C.
SECTION 35, T.2N., R.1W., W.M.
City of Portland, Multnomah County, Oregon
SURVEYED: March 21, 1994

LEGEND:

- Indicates 5/8" X 30" iron rod set flushed plastic cap stamped "WEDDLE LS 874".
- Indicates set rod, plastic cap stamped "WEDDLE LS 874" over 5/8" iron rod found per Recorded Survey No. 24472.
- Indicates brass tack set in lead wherever marker stamped "874".
- Indicates 6" X 7' high gal. steel fence post at property corner.
- Indicates brass screw found in lead plug.
- Designates identity and location of easements of record.
- Designates easement of record curve data.
- Designates property line curve data.

N = NAIL ℄ = Centerline

Prepared by:
Jim Weddle & Assoc., Inc
1750 SW Skyline Blvd.
Portland, Or. 97221
(503) 292-6083

NORTH

Scale: 1" = 100'

SEE SHEET 4 OF 9
MATCH LINE

LOT 1

LOT 2

N. BURGARD ROAD

N. SEVER ROAD

N. SEVER COURT

20' WIDE DEDICATED STREET
BOOK 682 PAGE 1129
REC. 9-19-1972

SEE DETAIL K
WATER VAULT EASE
BOOK 675 PAGE 1313

℄ EASEMENT CURVE DATA

CURVE	RADIUS	LENGTH	DELTA	CHORD	CH. BEARING
1	100.00'	62.30'	18°51'21"	61.07'	N 09°55'41"E
2	100.00'	131.00'	46°54'33"	127.37'	N 03°25'55"W
3	115.00'	54.67'	27°16'12"	54.15'	N 13°26'06"W
4	500.00'	44.04'	5°02'47"	44.02'	N 02°42'23"E
5	60.00'	94.19'	90°34'00"	84.82'	N 43°47'00"W
6	103.59'	63.99'	35°32'21"	62.95'	N 15°00'14"W
7	120.00'	150.20'	72°00'00"	141.07'	N 63°30'00"E
8	175.00'	91.63'	30°00'00"	90.59'	S 74°32'40"E
9	138.50'	168.50'	72°00'00"	158.76'	S 63°30'00"E
10	192.50'	101.25'	30°00'13"	100.09'	S 74°32'17"E
11	296.00'	157.25'	15°41'30"	157.04'	S 29°15'43"E
12	733.00'	294.03'	18°32'34"	292.04'	S 23°22'21"E
13	338.00'	300.48'	51°44'00"	290.31'	S 51°00'00"E
14	740.00'	136.55'	10°44'16"	136.40'	N 20°44'56"W
15	481.00'	227.29'	27°04'20"	225.18'	N 13°34'00"W

EASEMENTS OF RECORD

I.D.	BOOK \ PAGE	REC. DATE	TYPE
1	944 \ 194	09\17\73	POWER LINE
2	2042 \ 2034	09\17\87	ACCESS
3	700 \ 929	10\01\69	WATER, SEWER
4	647 \ 1468	10\30\68	UTILITY
5	781 \ 800	09\08\71	UTILITY
6	675 \ 1313	09\29\72	WATER LINE & VAULT
7	682 \ 1129	09\19\72	STREET DED. & EASE.
8	632 \ 1140	07\31\68	UTILITY
9	632 \ 1161	07\31\68	UTILITY
10	632 \ 1166	07\31\68	UTILITY
11	632 \ 1173	07\31\68	UTILITY
12	742 \ 93	07\10\70	WATER LINE
13	1006 \ 1137	09\25\74	WATER LINE & VAULT
14	1977 \ 1334	02\08\88	ROADWAY
15	682 \ 890	09\19\72	ACCESS
16	1408 \ 125	09\01\80	ROADWAY
17	1958 \ 672	09\08\88	ROADWAY
18	1112 \ 29	09\28\78	INGRESS, EGRESS
19	1842 \ 210	09\10\87	GAS MAIN
20	1869 \ 502	10\31\87	GAS MAIN
21	2347 \ 2900	09\26\90	RAILROAD
22	470 \ 460	10\28\38	ELECTRIC
23	2189 \ 449	03\29\89	PEDESTRIAN ACCESS

DETAIL K
SCALE: 1" = 30'

DETAIL M
SCALE: 1" = 40'
BOOK 1008 PAGE 1137 REC. 9/25/74

I HEREBY CERTIFY THIS MYLAR IS AN EXACT COPY OF THE ORIGINAL PLAT

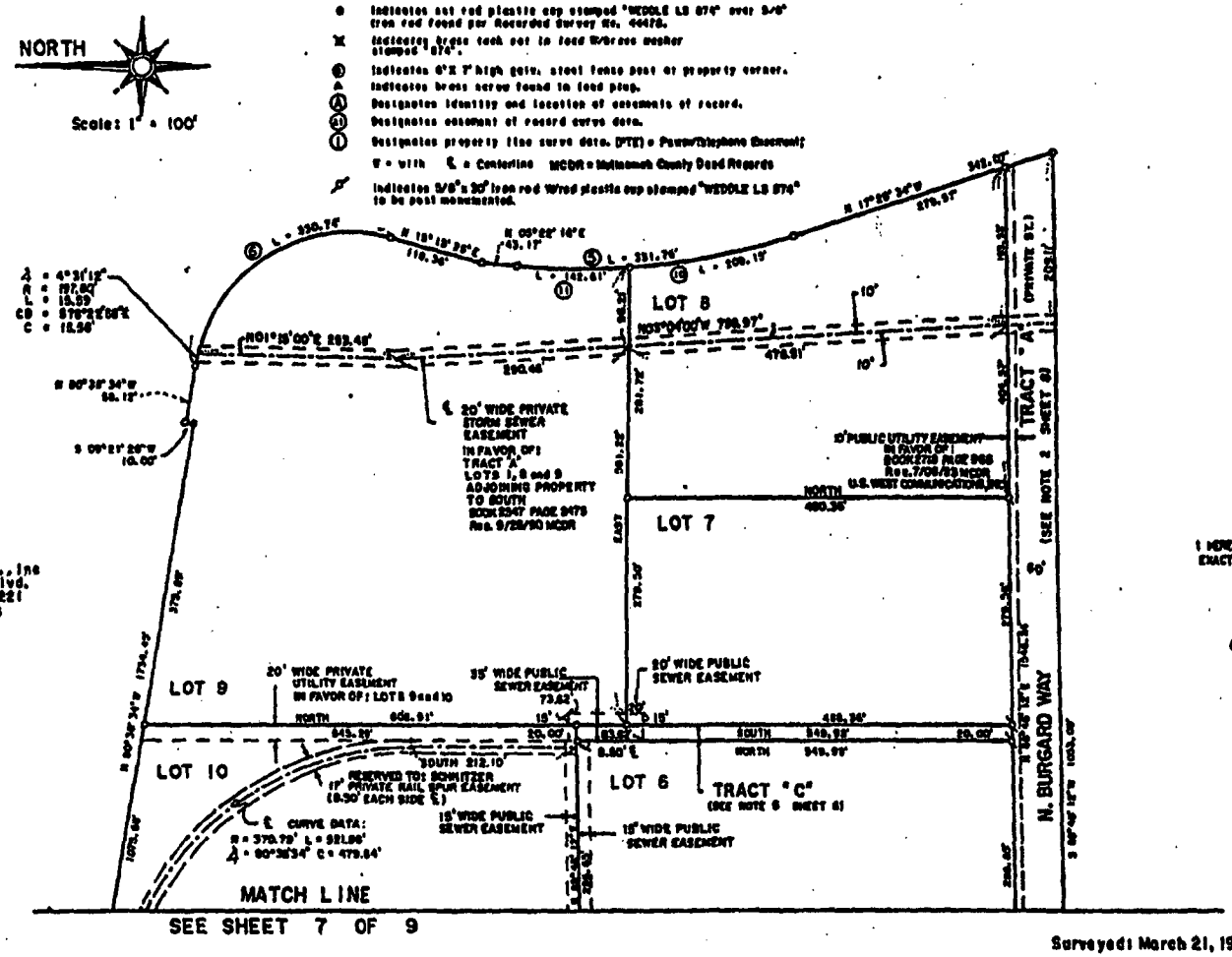
REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JAMES C. WEDDLE
874

EXPIRES: 12/31/94

SHEET 5 OF 9
(EASEMENTS OF RECORD)

1229-100

SCHN00152714



Prepared by:
Jim Weddle & Assoc., Inc
1750 SW Skyline Blvd.
Portland, Or. 97221
(503) 292-8063

I HEREBY CERTIFY THIS MYLAR IS AN EXACT COPY OF THE ORIGINAL PLAT.

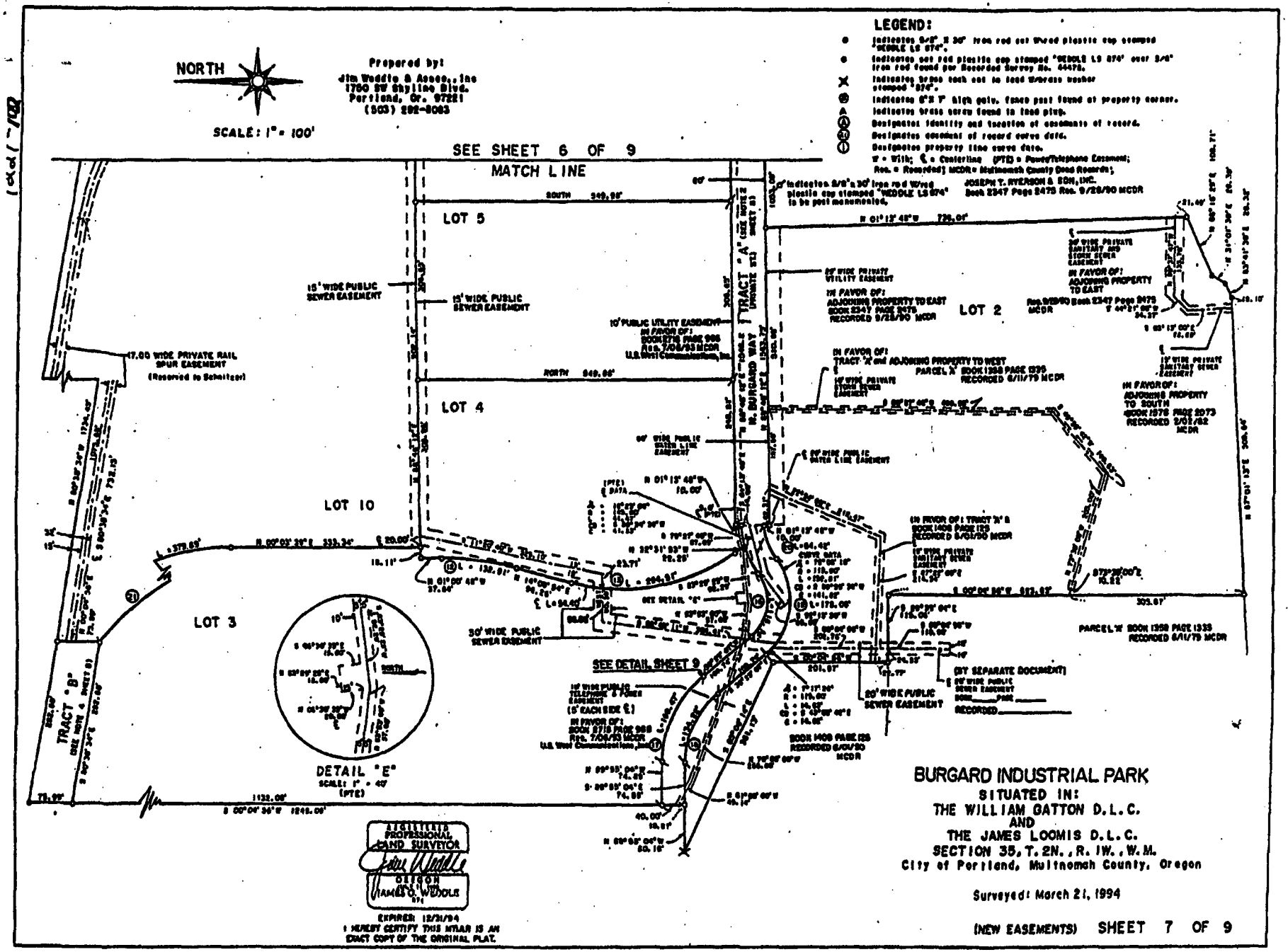
REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JAMES C. WEDDLE
EXPIRES: 12/31/94

Surveyed: March 21, 1994

BURGARD INDUSTRIAL PARK

SITUATED IN:
THE WILLIAM GATTON D.L.C.
AND
THE JAMES LOOMIS D.L.C.
SECTION 35, T. 2N., R. 1W., W.M.
City of Portland, Multnomah County, Oregon
(NEW EASEMENTS) SHEET 6 OF 9

SCHN00152715



SCHN00152716

I HEREBY CERTIFY THIS MYLAR IS AN EXACT COPY OF THE ORIGINAL PLAT.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JAMES O. WEDDLE
874

EXPIRES: 12/31/94

BURGARD INDUSTRIAL PARK

SITUATED IN
THE WILLIAM GATTON D.L.C.
and
THE JAMES LOOMIS D.L.C.
SECTION 35, TOWNSHIP 2 NORTH, RANGE 1 WEST, W.M.,
CITY OF PORTLAND, COUNTY OF MULTNOMAH
and
STATE OF OREGON.

SURVEYED: MARCH 21, 1994

NOTES:

NOTE 1:
TRACT A is subject to the terms set forth in DECLARATION OF PRIVATE STREET MAINTENANCE AGREEMENT, recorded_____, in Book_____, page_____, Multnomah County Deed Records.

NOTE 2:
TRACT A is reserved to Schnitzer Investment Corp as a private roadway and will be conveyed to and maintained by the owners of Lots 2 through 6, BURGARD INDUSTRIAL PARK. TRACT A is subject to public and private easements necessary to provide sewer, water, drainage and other necessary utilities. "If public sewer facilities are located within TRACT A, an exclusive easement, 7.50 feet from the centerline of both sides of the pipeline, shall exist. No other facilities are to be located within this easement without the prior written consent of the Director of the Bureau of Environmental Services, City of Portland".

NOTE 3:
For all public sewer easements:

"All sewer easements indicated as "public" are exclusive easements. No other utilities, facilities, or easements are to be located within the boundaries of public sewer easements without the prior written consent of the Director of the Bureau of Environmental Services, City of Portland.

Public sewer easements include the right of access for construction, inspection, maintenance, or other sewerage system activities.

No building construction, material storage, grade reduction, or tree planting shall be permitted within public sewer easements without the prior written consent of the Director of the Bureau of Environmental Services. Landscaping which by its nature is shallow rooted and may be easily removed to permit access to the sewer lines shall not require consent".

NOTE 4:
TRACT B is reserved to Schnitzer Investment Corp for private utility and rail spur easements.

NOTE 5:
TRACT C is reserved under the equal ownership of Lots 6, 7, 9 and 10 for public and private utility easement purposes, in accordance with the easements created and granted hereon.

Prepared by:
Jim Weddle & Assoc., Inc.
1750 SW Skyline Blvd.
Portland, OR 97221
(503) 292-8083

EASEMENT RECORDING DATA:

Book	Page	Recorded	In favor of:	Location:	For:
470	469	10/28/1938	Portland General Elec. Co.	(Undetermined)	Electric
958	506	02/11/1941	Adjacent property owners	(Undetermined)	Road & railroad
743	15	04/16/1943	Oregon Shipbuilding corp.	(Undetermined)	Railroad
800	240	12/11/1943	Adjoining property owners	(See map)	
800	253	12/11/1943	Adjoining property owners	(See map)	
800	258	12/11/1943	Adjoining property owners	(See map)	
907	171	08/15/1945	United States of America	(See map)	
1066	948	10/10/1979	Container Corp. of America	(See map)	
1405	485	05/23/1950	United States of America	(Undetermined)	Roadway
1405	949	05/23/1950	Surplus Properties Corp.	(Undetermined)	Road & railroad
1405	977	05/23/1950	Northwest Terminal Co.	(Undetermined)	Railroad
1405	982	05/23/1950	Adjoining property owners	(See map)	
1407	313	05/29/1950	Louis Dullen & Ann Dullen	(Undetermined)	Railroad
1407	327	05/29/1950	Portland General Elec. Co.	(Undetermined)	Electric
1408	189	06/01/1950	California Container Corp.	(See map)	
1413	521	08/26/1950	State of Oregon	(Undetermined)	Railroad
1842	216	05/10/1957	Portland Gas & Coke Co.	(See map)	
1869	502	10/31/1957	Portland Gas & Coke Co.	(See map)	
1958	872	06/08/1959	Owen McIntyre Elec. Co.	(See map)	
565	343	10/04/1967	Adjacent property owners	(See map)	
565	347	10/04/1967	(Same as Book 565 page 343)		
632	1149	07/31/1968	Buell Pipe & Tank Corp.	(See map)	
632	1155	07/31/1968	Container Corp. of America	(See map)	
632	1161	07/31/1968	Ralph R. & Mildred McIntyre	(See map)	
632	1168	07/31/1968	Ralph R. & Mildred McIntyre	(See map)	
647	1482	10/30/1968	Port of Portland	(See map)	
660	856	01/24/1969	City of Portland (Same as Book 647 Page 1482)		
782	197	04/14/1971	Broadway Holding Company (Same as Book 660 Page 856)		
668	1297	03/24/1969	City of Portland	(See map)	
700	528	10/01/1969	City of Portland	(See map)	
742	53	07/10/1970	City of Portland	(See map)	
781	885	04/09/ 971	City of Portland	(See map)	
875	1170	06/14/1972	National Life Insurance Co.	(See map)	
875	1213	06/29/1972	City of Portland	(See map)	
882	934	09/19/1972	City of Portland	(See map)	
944	134	08/17/1973	Portland General Elec. Co.	(See map)	
1006	1137	09/23/1974	City of Portland	(See map)	
1032	1915	03/23/1975	National Life Insurance Co.	(See map)	
1112	29	06/23/1976	Buell Pipe & Tank Corp.	(See map)	
1220	2128	11/10/1977	(By and between Schnitzer Investment Corp. Palmer Inc., Northwest Terminal Co., and Time Oil Co.)		
1322	2026	01/11/1979	Portland General Elec. Co.		
1534	1288	08/30/1981	Northwest Natural Gas Co.	(See map)	
1573	806	01/14/1982	Buell Pipe & Tank Co. (See Book 1577 Page 1334)		
1577	1334	02/03/1982	Buell Pipe & Tank Co. (See Book 1573 Page 806)		
2042	2584	09/17/1987	Schnitzer Steel Products Co.	(See map)	
2189	449	03/23/1989	Adjacent property owners	(See map)	
2258	2247	12/07/1989	Container Corp. of America	(See map)	
2347	2500	08/28/1990	Joseph T. Ryerson & Son, Inc.	(See map)	
2347	2524	08/28/1990	(By and between Joseph T. Ryerson & Son, Inc., Schnitzer Steel Industries and Schnitzer Investment Corp)	(Not specified)	Utilities
2347	2541	08/28/1990	Joseph T. Ryerson & Son, Inc.	(See map)	
2347	2547	08/28/1990	(By and between Joseph T. Ryerson & Son, Inc., Schnitzer Steel Industries and Schnitzer Investment Corp)	(Not specified)	Utilities
2718	966	07/08/1993	Communications easement	(See map)	

SCHN00152717

BURGARD INDUSTRIAL PARK

SITUATED IN:
THE WILLIAM GATTON D.L.C.
AND
THE JAMES LOOMIS D.L.C.
SECTION 35, TOWNSHIP 2 NORTH, RANGE 1 WEST, W.M.,
CITY OF PORTLAND, COUNTY OF MULTNOMAH
AND
STATE OF OREGON.

SURVEYED: MARCH 21, 1994

LEGEND:

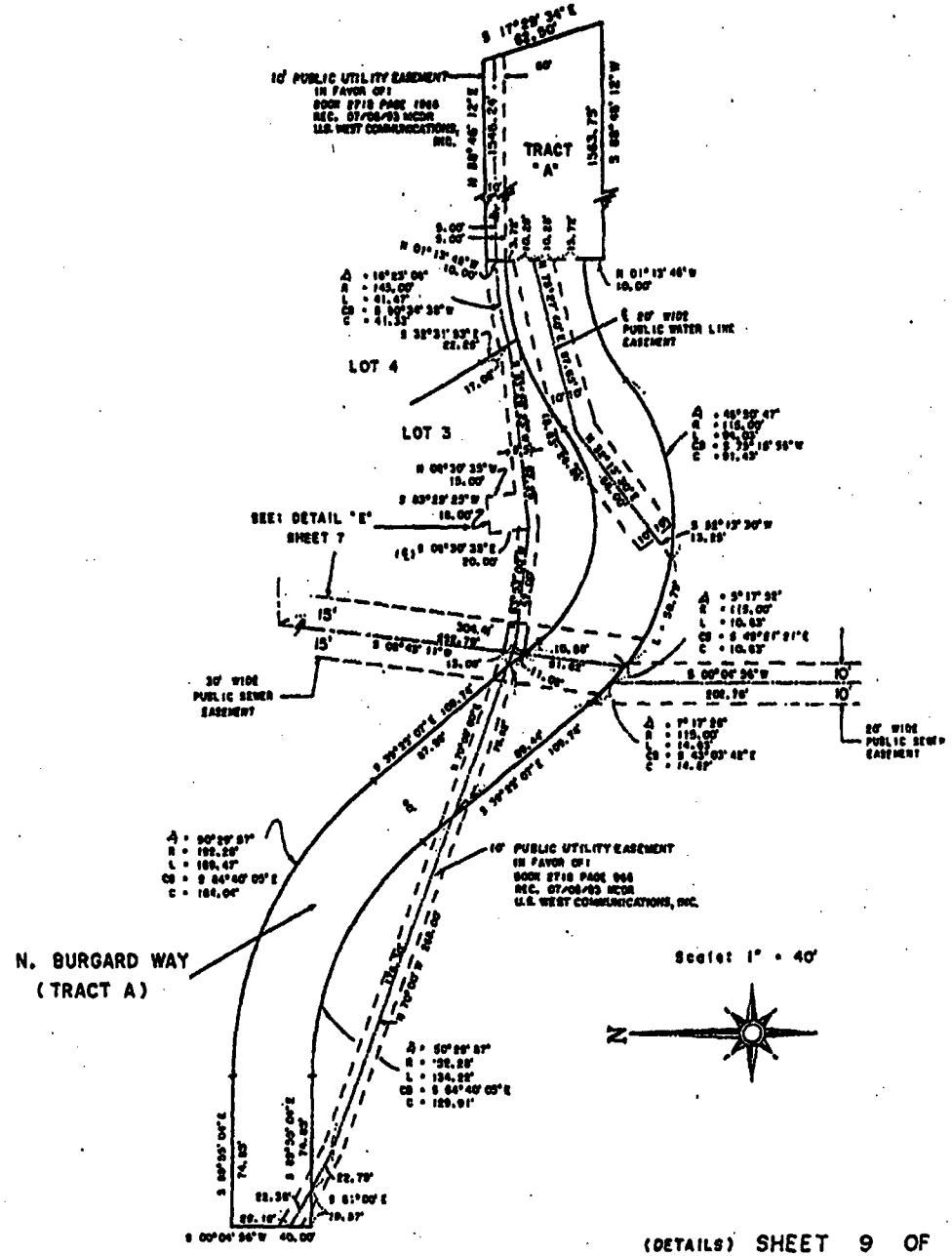
MCDR = MULTNOMAH COUNTY DEED RECORDS
(PTE) = POWER/TELEPHONE EASEMENT
REC = RECORDED

I HEREBY CERTIFY THIS MYLAR IS EXACT COPY OF THE ORIGINAL PLAT.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JAMES O. WEDDLE

EXPIRES: 12/31/94

PREPARED BY:
JIM WEDDLE & ASSOC., INC.
1750 SW SKYLINE BLVD.
PORTLAND, OR 97221
(503) 292-8083



(DETAILS) SHEET 9 OF 9

SCHN00152718

May 22, 2000

Tom Zelenka
Schnitzer Investment Corporation
P.O. Box 10047
Portland, Oregon 97296-0047

RE: Voluntary Agreement for Remedial Investigation and Source Control Measures and Scope of Work for Schnitzer Burgard Industrial Park

Dear Mr. Zelenka:

Enclosed are three originals of the Voluntary Agreement for Remedial Investigation and Source Control Measures (Agreement) and Scope of Work (SOW) prepared by the Oregon Department of Environmental Quality (DEQ) for the Schnitzer Burgard Industrial Park site located at 12005 N. Burgard Road in Portland, Oregon. These documents reflect the results of extensive negotiations and the modifications agreed to during our meeting on April 28, 2000.

Please review these documents and forward them to the appropriate party for signature. Once the three originals have been signed, return them to me for signature by the Northwest Region Administrator. It is DEQ's expectation that these documents will be signed and returned within two weeks from the date of this letter. One signed original will be returned to you for your files.

Please be aware that should you decline to sign the enclosed Agreement within the allotted time frame, DEQ will begin preparation of a unilateral order for the Schnitzer Burgard Industrial Park site. It is unlikely that the SOW attached to the unilateral order will include many of the elements agreed to during our negotiations such as the opportunity to perform a Pre-RI Assessment and potential termination of the Agreement based on the results of the Pre-RI Assessment.

If you have any questions, please do not hesitate to contact me at 229-5011.

Sincerely,

Alicia C. Voss, Project Manager
Portland Harbor and Voluntary Cleanup Section

cc: Mike Rosen, NWR/DEQ
Eric Blischke, NWR/DEQ
Norm King, WMCD/DEQ
Kurt Burkholder, DOJ
Joan Snyder, Stoel Rives

VOLUNTARY AGREEMENT FOR
REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

DEQ NO. WMCVC- NWR- 0015

BETWEEN: Schnitzer Investment Corporation (Schnitzer)

AND: Oregon Department of Environmental Quality (DEQ)

EFFECTIVE DATE: May ___, 2000

Pursuant to ORS 465.260(2) and (4), the Director, Oregon Department of Environmental Quality (DEQ), enters this Agreement with Schnitzer Investment Corporation (Schnitzer). This Agreement contains the following provisions:

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I. RECITALS

A. Schnitzer is a "person" under ORS 465.200(20).

B. The Schnitzer site occupies approximately 200 acres at 12005 N. Burgard Road, Portland, Oregon. A vicinity map and a site map are included in Attachment A to this Agreement. The Schnitzer site does not include the property that was formerly leased to Premier Edible Oils and C&T Quincy Foods.

C. The Schnitzer site is located within or near what is known as the Portland Harbor, a six-mile reach of the Willamette River between Sauvie Island and Swan Island. A 1997 study by DEQ and the U.S. Environmental Protection Agency identified elevated levels of hazardous substances in shallow, near-shore sediments throughout the Portland Harbor.

D. Schnitzer has owned the Site since 1972. Current site operations are varied. Schnitzer Steel Industries (SSI) operates a scrap metal recycling yard and deep marine terminal at the Site. SSI processes, stores, and exports recyclable materials on approximately 93 acres. Its shipping docks are located along the Site's western riverfront and an approximate 11-acre slip (International Terminals Slip). Other current Site operations include nonferrous metals recovery, fabrication and painting of automobile transport trailers, truck maintenance, ocean shipping container storage and repair facility, machine shop, sandblasting, and the manufacture of protective coatings. Recent site operations also included processing, storing and shipping of cooking oils and warehousing.

E. Materials used and stored on-site include diesel, hydraulic oil, waste oil and other petroleum products; paint, hardeners, and solvents. Primary wastes generated by SSI and other site operators include non-metallic rail car and other scrap operation debris, used oil, used antifreeze, used solvent and solid wastes. At least eight releases of petroleum to the Willamette River from the Schnitzer site have been reported since 1979. Previous investigations have detected contamination in soil and groundwater on, and sediments adjacent to, the Site.

F. The following contaminants were detected in sediment samples collected adjacent to the Schnitzer site at concentrations exceeding baseline concentrations established for the Portland Harbor Study Area: antimony, arsenic, barium, cadmium, cobalt, copper, chromium, iron, manganese, lead, mercury, nickel, silver, zinc, organotins, bis (2-ethylhexl) phthalate, butylbenzlphthalate; carbazole, dibenzofuran, 2-methylnaphthylene, and low- and high- molecular weight polynuclear aromatic hydrocarbons (LPAHs and HPAHs, respectively). Concentrations of antimony, carbazole, dibenzofuran, mercury, zinc, LPAHs, and HPAHs were all more than twice their respective baseline values. Concentrations of organotins at one sediment sample location were more than 150 times the baseline value. Investigations have also disclosed contamination of soil and groundwater at the Site.

The substances described in this section are "hazardous substances" under ORS 465.200(15). The presence of hazardous substances in soil, groundwater, and sediments at or near the site constitutes a "release" or "threat of release" into the

environment under ORS 465.200(21). The Schnitzer site and the contaminated sediments at or near the site are a ▒ facility▒ under ORS 465.200(12).

G. DEQ considers the activities required by this Agreement to be necessary to protect public health, safety, and welfare and the environment.

II. AGREEMENT

The parties agree as follows:

A. Work

1. Remedial Investigation

Schnitzer shall perform a remedial investigation satisfying OAR 340-122-0080, the terms and schedule of a DEQ approved work plan developed by Schnitzer, and applicable elements of the Scope of Work contained in Attachment B to this Agreement. Schnitzer may specify, in the proposed work plan, elements of the Scope of Work that [NAME of PARTY] considers inapplicable or unnecessary to the remedial investigation for the facility. Schnitzer may propose to perform the work in phases or operable units.

2. Source Control Measures

For any unpermitted discharge or migration of contaminants to the Willamette River or sediments identified in the remedial investigation, Schnitzer shall evaluate such discharge or migration, and then develop and implement source control measures in accordance with the Scope of Work.

3. DEQ-Review

DEQ shall provide review, approvals/disapprovals, and oversight in accordance with the schedule set forth in the Scope of Work, or as soon as thereafter practicable in the event staff resources or workload prevent compliance with the schedule. Any DEQ delay shall correspondingly extend Schnitzer's schedule for a related deliverable or activity.

4. Additional Measures

Schnitzer may elect at any time during the term of this Agreement to undertake remedial measures other than those required under this Agreement necessary to address a release or threatened release of hazardous substances at the

facility. Such other measures shall be subject to prior approval by DEQ. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action as soon as is practicable.

5. Dredging Activities

Schnitzer shall notify the DEQ project manager at least sixty (60) days before undertaking any dredging or other activity that might disturb sediments at or near the facility. In its notice of dredging or other activity, Schnitzer shall: (a) Evaluate the concentration of hazardous substances present in and below the affected sediments based on sampling and analyses performed in advance of the notice; (b) Document the steps to be taken to ensure that both the activity and the subsequent management and disposal of dredged spoils will be conducted in a manner protective of human health and the environment; and (c) Evaluate the effect of the activity on the Portland Harbor Remedial Investigation and Feasibility Study. Dredging may proceed under existing permits subject to the above notice and implementation of any additional dredging or management practices required by DEQ. DEQ shall also be notified of and copied on any permit application to the Oregon Division of State Lands or United States Army Corps of Engineers for dredging or other activity disturbing sediments adjacent to the Schnitzer site. Notwithstanding the foregoing, Schnitzer may conduct dredging or other activities that might disturb sediments at or near the facility without giving DEQ 60 days' notice, if such activities are conducted in accordance with an effective Dredging Agreement between Schnitzer and DEQ that describes the notification and sampling requirements, dredging, management, and disposal practices, and any other measures that Schnitzer will take to ensure that all activities within the scope of the Dredging Agreement are conducted in a manner that is protective of human health and the environment and consistent with Harborwide cleanup work.

B. Public Participation

Upon execution of this Agreement, DEQ will provide public notice of this Agreement through issuance of a press release, at a minimum to a local newspaper of general circulation, describing the measures required under this Agreement. Copies of the Agreement will be made available to the public. DEQ shall provide Schnitzer a draft of such press release and consider any

comments by Schnitzer on the draft press release, before publication.

C. DEQ Access and Oversight

1. Schnitzer shall allow DEQ to enter all portions of the facility at all reasonable times for the purposes, among other things, of inspecting records relating to work under this Agreement; observing Schnitzer's progress in implementing this Agreement; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by Schnitzer; and, using camera, sound recording, or other recording equipment for purposes relating to work under this Agreement. Upon Schnitzer's verbal request, DEQ shall make available to Schnitzer a split or duplicate of any sample or recording taken by DEQ pursuant to this Agreement. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before entering the facility. DEQ shall adhere to all health and safety requirements of the facility, as identified in the applicable Health and Safety Plan, including, but not limited to, requirements in portions of the Site where outside visitors must be accompanied by company personnel.

2. Schnitzer shall permit DEQ to inspect and copy all records, files, photographs, documents, and data in connection with work under this Agreement, except that Schnitzer shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege. DEQ shall use its best efforts, but not be obligated, to provide reasonable notice before records inspection and copying requests.

3. Attorney-client and work product privileges may not be asserted with respect to any records required under Paragraphs II.G.1 and II.G.2 of this Agreement. Schnitzer shall identify to DEQ--by addressor-addressee, date, general subject matter, and distribution--any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by Schnitzer.

D. Project Managers

1. To the extent possible, all reports, notices, and other communications required under or relating to this Agreement shall be directed to:

DEQ Project Manager:	Schnitzer Project Manager:
Alicia C. Voss Voluntary Cleanup and Portland Harbor Section 2020 SW Fourth, Suite 400 Portland, Oregon 97204 503-229-5011	Tom Zelenka Schnitzer Investment Corporation P.O. Box 10047 Portland, Oregon 97296-0047 503-224-9900

2. Schnitzer's and DEQ's Project Managers shall be available and have the authority to make day-to-day decisions necessary to complete the Scope of Work under this Agreement.

E. Notice and Samples

Schnitzer shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Agreement at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon DEQ's verbal request, Schnitzer shall make available to DEQ a split or duplicate of any sample taken pursuant to this Agreement. DEQ shall make every effort to complete analysis of any split or duplicate sample on a schedule consistent with Schnitzer's schedule for related activities. DEQ shall provide Schnitzer with copies of all analytical data from such samples as soon as practicable.

F. Quality Assurance

Schnitzer shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/ Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Agreement shall be consistent with DEQ's "Quality Assurance Policy No. 760.00". Schnitzer shall ensure that each laboratory used by Schnitzer for analysis performs such analyses in accordance with such provisions.

G. Records

1. In addition to those technical reports and documents specifically required under this Agreement, Schnitzer shall

provide to DEQ within thirty (30) days of DEQ's written request copies of documents generated in connection with the work required under this Agreement, including QA/QC memoranda and QA/QC audits, draft and final deliverable plans, final reports, task memoranda, field notes, and laboratory analytical data that have undergone data quality validation.

2. If DEQ determines that review of raw data or preliminary laboratory reports is necessary in order to ensure protection of public health, safety, and welfare and the environment, that information will be provided by Schnitzer within_ten (10) days of DEQ's written request.

3. Schnitzer and DEQ shall preserve all records and documents in possession or control of Schnitzer and DEQ, respectively, or their employees, agents, or contractors that relate in any way to activities under this Agreement for at least five (5) years after termination under Subsection II.R. of this Agreement; provided that after such 5-year period, Schnitzer and DEQ shall provide the other sixty (60) days notice before destruction or other disposal of such records and make them available for inspection and copying.

4. Schnitzer may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Agreement. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If Schnitzer does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to Schnitzer.

H. Progress Reports

During each quarter of this Agreement, Schnitzer shall deliver to DEQ on or before the fifteenth (15th) day following the end of the calendar quarter two, (2) copies of a progress report containing the following items. DEQ anticipates that the progress report will not exceed 2 pages in length.

1. Actions taken under this Agreement during the previous quarter;

2. Actions scheduled to be taken in the next quarter;

3. Sampling, test results, and any other data generated by Schnitzer during the previous quarter; and

4. A description of any problems experienced during the previous quarter and the actions taken to resolve them.

I. Other Applicable Laws

Subject to ORS 415.315(3), all actions under this Agreement shall be performed in accordance with all applicable federal, state, and local laws and regulations.

J. Reimbursement of DEQ Oversight Costs

1. Prior to entry of this Agreement, DEQ shall submit to Schnitzer an estimate of costs incurred by DEQ to date for site assessment activities and preparation and negotiation of this Agreement. Upon entry of this Agreement, DEQ shall submit to Schnitzer a statement for costs actually and reasonably incurred by DEQ prior to entry of this Agreement for site assessment activities and preparation and negotiation of this Agreement and an estimate of future DEQ oversight costs associated with Schnitzer's implementation of this Agreement.

2. DEQ shall submit to Schnitzer a monthly statement of costs incurred after issuance of this Agreement by DEQ in connection with oversight of Schnitzer's implementation of this Agreement. Each invoice will include a summary of costs billed to date. DEQ's invoice for direct costs will include a direct labor summary showing the persons charging time, the amount of time, and the nature of the work performed.

3. DEQ or State of Oregon oversight costs payable by Schnitzer shall include both direct and indirect costs. Direct costs shall include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs shall include those general management and support costs of the DEQ and of the applicable administering division (e.g. Waste Prevention and Management Division, Environmental Cleanup Division, Northwest Region) that are allocable to DEQ oversight of this Agreement and not charged as direct, site-specific costs. Indirect costs shall be based on a percentage of direct personal services costs. DEQ oversight costs also shall include the surcharge required by ORS 465.333.

4. Within thirty (30) days of receipt of a DEQ statement, Schnitzer shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund". Schnitzer shall pay simple interest of 9% per annum on the unpaid balance of any oversight costs, which

interest shall begin to accrue at the end of the 30-day payment period.

K. **Force Majeure**

1. If any event occurs that is beyond Schnitzer's reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Agreement, Schnitzer shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which Schnitzer proposes to carry out such measures. Schnitzer shall confirm in writing this information within five (5) working days of the verbal notification.

2. If Schnitzer demonstrates to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the reasonable control and despite the due diligence of Schnitzer, DEQ shall extend times for performance of related activities under this Agreement as appropriate. Circumstances or events beyond Schnitzer's control might include but are not limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond Schnitzer's reasonable_control.

L. **Prior Approval**

Where DEQ review and approval is required for any plan or activity under this Agreement, Schnitzer shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by Schnitzer. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action as soon as is practicable.

M. **Dispute Resolution**

In the event of disagreement between Schnitzer and DEQ regarding implementation of this Agreement, Schnitzer and DEQ shall, in the following order: 1) make a good faith effort to resolve the dispute between Project Managers; 2) if necessary, refer the dispute for resolution by the immediate supervisors of the Project Managers; 3) if necessary, provide each other their respective positions in writing and refer the dispute for resolution by DEQ's Administrator of the Waste Prevention and

Management Division or the appropriate Region Administrator and Schnitzer's (ADMINISTRATOR'S COUNTERPART); and 4) if necessary, refer the dispute for resolution by DEQ's Director and Schnitzer's (DIRECTOR'S COUNTERPART). DEQ's final decision after such dialogue shall be enforceable under this Agreement. The time required for dispute resolution shall correspondingly extend Schnitzer's schedule for all pending, affected deliverables or activities.

N. Enforcement of Agreement and Reservation of Rights

1. In the event of Schnitzer's failure to comply with this Agreement (including any failure to reimburse oversight costs), DEQ may enforce this Agreement as an order under ORS 465.260(5) or may terminate this Agreement after thirty (30) days written notice to Schnitzer.

2. In the event of DEQ's failure to provide oversight in accordance with this Agreement, Schnitzer may terminate this Agreement after thirty (30) days written notice to DEQ. Costs incurred or obligated by DEQ before the effective date of any termination of this Agreement shall be owed under the Agreement notwithstanding such termination.

3. Schnitzer does not admit any facts (including those recited herein), legal issues, liability, or violation of law by virtue of entering this Agreement.

4. Except as otherwise provided in Subsection II.O., nothing in this Agreement shall prevent Schnitzer from exercising any rights of contribution or indemnification Schnitzer might have against any person, including the State of Oregon, regarding the release(s) of hazardous substances that are the subject of this Agreement; provided Schnitzer waives any right it might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund for costs incurred under this Agreement.

5. Schnitzer agrees not to litigate, in any proceeding brought by DEQ to enforce this Agreement, any issue other than Schnitzer's or DEQ's compliance with this Agreement.

6. In the event that the Schnitzer site becomes part of a federal National Priority List (NPL) site, DEQ agrees to cooperate with Schnitzer to encourage EPA to accept satisfactory and complete performance under this Agreement as fulfillment of Schnitzer's obligation to perform the same work under a subsequently issued EPA Order or Consent Decree.

If EPA does not agree that such performance under this Agreement fulfills the EPA-imposed obligations, the Agreement may be modified pursuant to Subsection II.Q. or terminated at the election of DEQ or Schnitzer. Notwithstanding the foregoing, if the Portland Harbor area becomes part of a federal NPL site, but (1) the Schnitzer site is not itself included in the area expressly covered by the NPL listing (e.g. the Harbor is listed but upland sites are not) or (2) DEQ remains the lead agency with respect to the Schnitzer site, this Agreement shall remain in full force and effect, however; if EPA orders any conflicting or overlapping activities, this Agreement shall be modified, as necessary, to prevent conflicting or duplicative obligations. Any other additional EPA-imposed obligations may be addressed by modification of this Agreement under Subsection II.Q.or by separate agreement or order.

O. Hold Harmless

1. Schnitzer shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of Schnitzer or its officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by Schnitzer or its agents in carrying out activities under this Agreement.

2. To the extent permitted by Article XI, Section 7, of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless Schnitzer and its officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of the State of Oregon or its commissions, agencies, officers, employees, contractors, or agents (except for acts approving or omissions constituting approval of any activity of Schnitzer under this Agreement). Schnitzer shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Agreement.

P. Parties Bound

This Agreement shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Agreement. No change in ownership or corporate or partnership status relating

to the facility shall in any way alter Schnitzer's obligations under this Agreement, unless otherwise approved in writing by DEQ.

Q. Modification

DEQ and Schnitzer may modify this Agreement by mutual written agreement.

R. Duration and Termination

Upon completion of work under this Agreement, Schnitzer shall submit to DEQ a written notice of completion. This Agreement shall be deemed satisfied and terminated upon payment of all oversight costs owed and upon DEQ's issuance of a letter acknowledging satisfactory completion of activities in accordance with this Agreement. Such letter shall be issued within sixty (60) days of receipt of notice of completion evidencing satisfactory completion of activities in accordance with this Agreement and payment of outstanding DEQ oversight costs, or as soon thereafter as is reasonably practicable. In the event that DEQ is unable to issue such letter within sixty days of receipt of Schnitzer's written notice of completion, DEQ shall provide Schnitzer with a written schedule upon which DEQ anticipates review of Schnitzer's work and issuance of that letter.

Schnitzer

By: _____ Date: _____
(Name)

_____
(Title)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____ Date: _____
(Name)

_____
(Title)

KBB/GEN30415

SCHN00152820

ATTACHMENT B

SCOPE OF WORK FOR REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

I. SCHEDULE

Respondent shall submit for DEQ review and approval Remedial Investigation (RI), Risk Assessment (RA), and Source Control Measures (SCM) work plans and reports which address all elements of this Scope of Work (SOW). Elements of the SOW may be addressed by alternative means or by using existing data or information to the extent that the data are applicable, meet the objectives of the RI, and are of acceptable QA/QC.

All work completed under this Agreement shall proceed in accordance with the schedule below:

RI Assessment Work Plan (if Respondent elects to perform a Pre-RI Assessment)	A Pre-RI Assessment Work Plan will be submitted to DEQ within 30 days of the issuance of this Agreement.
DEQ Review and Comment	To Respondent within 30 days of receipt of Pre-RI Assessment Work Plan.
Pre-RI Assessment Report	To be specified in Pre-RI Assessment Work Plan.
RI Proposal	An RI proposal will be submitted to DEQ within 30 days of issuance of this Agreement or, if a Pre-RI Assessment is performed and DEQ determines that an RI is necessary, based on the results of a Pre-RI Assessment, within 30 days of approval of the Pre-RI Assessment Report.
DEQ Review and Comment	To Respondent within 30 days of receipt of RI Proposal.
Draft RI Work Plan	To DEQ within 45 days of receipt of DEQ comments on RI Proposal.
DEQ Review and Comment	To Respondent within 30 days of receipt of draft RI Work Plan.
Final RI Work Plan	To DEQ within 30 days of receipt of DEQ comments on draft RI Work Plan.
Initiation of RI	To be specified in Project Management section of RI Work Plan.
Initiation of SCM	To be specified in Project Management section of RI Work Plan.

The schedule for additional deliverables specified in this SOW (e.g., Risk Assessment work plan, Remedial Investigation report, Risk Assessment report, and Source Control Measure work plan) should be specified in the Project Management Plan section of the RI work plan.

All work plans may be amended by Respondent as necessary to reflect or incorporate newly discovered information and/or environmental conditions. Additional work plans and work plan amendments are subject to DEQ review and approval and shall be processed according to schedules negotiated between the parties at the time of each phase change or task addition. Respondent shall initiate and complete work according to the schedule specified in the applicable approved work plan or amendment. Future schedules or deadlines for all submittals, work plans or other requirements shall be adjusted accordingly for the time necessary for preparation, approval and implementation of additional work plans, investigations and/or reports not contemplated in the original schedule and shall be approved by DEQ in writing.

II. OBJECTIVES

Work performed under this Agreement shall complement and incorporate existing facility information with the following specific objectives. For purposes of this Scope of Work, the "facility" shall exclude that portion of the facility that is below the mean high-water mark of the Willamette River. The parties acknowledge that a separate Portland Harbor Sediment RI/FS is proceeding with respect to the portion of the Willamette River below the mean high-water mark, and it is not the purpose of this Scope of Work to duplicate any of that work:

A. Identify and characterize all hazardous substance source areas at the **Schnitzer** facility. Source areas shall be characterized through a review of historical information and the collection of environmental samples for chemical, geotechnical, and other analyses. The evaluation of source areas shall focus on upland operations that may have resulted in a release of hazardous substances.

B. Evaluate all contaminant migration pathways at the **Schnitzer** facility. Key elements relevant to contaminant migration include, but are not limited to, the rate and direction of groundwater flow, subsurface contaminant migration to the Willamette River, overland contaminant migration to the Willamette River, storm water discharge to the Willamette River, direct and indirect release to the Willamette River, preferential migration pathways, volatilization, dust entrainment, and riverbank seepage.

C. Determine the nature, extent, and distribution of hazardous substances in affected media at the **Schnitzer** facility. This analysis should focus on the vertical and horizontal extent of source area contamination, groundwater contamination, and surface and subsurface soil contamination.

D. Identify all current and reasonably likely future human and ecological receptors at the **Schnitzer** facility. Receptors shall include human and ecological receptors that may be exposed to hazardous substances at the facility. This analysis should consider all relevant contaminant migration pathways and the nature, extent and distribution of hazardous substances in affected media.

E. Collect sufficient data and historical information to allow the identification of possible areas of sediment contamination adjacent to the **Schnitzer** facility. Areas of potential sediment contamination shall be characterized through the Portland Harbor Sediment RI/FS. Data collection and evaluation shall consider the potential for contaminant migration to the Willamette River and over or in-water releases of hazardous substances resulting from operations at the **Schnitzer** facility. Respondent may be required to perform limited sediment or benthic sampling adjacent to the facility as necessary to address an objective of this Scope of Work but will not be required to conduct sediment or benthic sampling that is duplicative of sampling under the Portland Harbor sediment RI/FS.

F. Evaluate the risk to human health and the environment from releases of hazardous substances at or from the **Schnitzer** facility through the performance of human health and ecological risk assessments.

G. Identify hot spots of contamination, if any, at the **Schnitzer** facility.

H. Generate or use data of sufficient quality for site characterization and risk assessment at the **Schnitzer** facility.

I. Develop the information necessary to evaluate and design necessary source control measures to address contaminant releases from the **Schnitzer** facility.

J. Implement necessary source control measures to address contaminant releases from the **Schnitzer** facility.

III. Pre-RI Assessment Work Plan and Report

Respondent may elect to perform a Pre-RI Assessment as the initial task under this Agreement. The primary purpose of the Pre-RI assessment is to determine which media and pathways (e.g., groundwater, surface water, air, and direct contact) are affected by site related hazardous substances. The Pre-RI Assessment will include a review of the facility history, review of current facility conditions, and may include focused sampling activities, to assess potential past and present sources of hazardous substances and determine if there has been a release from these sources to surface water or sediments, as appropriate.

If Respondent elects to perform a Pre-RI Assessment, Respondent shall submit a Pre-RI Assessment Work Plan for DEQ review and approval. The Pre-RI Assessment Work Plan shall describe the objectives, deliverables, schedule, and specific tasks that will be performed for the Pre-RI Assessment. If the Pre-RI Assessment includes sampling, the work plan shall describe the sampling locations and the methodologies that will be used for the sampling and analysis.

The Pre-RI Assessment report will present the results of the Pre-RI Assessment including figures and tables presenting the results of any sampling and analysis. The report will present conclusions regarding the likelihood of past or present source(s) and pathway(s) for the release of hazardous substances to sediments adjacent to Respondent's facility and whether a re-evaluation of the priority of Respondent's facility is appropriate.

The results of the Pre-RI Assessment shall be used to determine whether further action is needed to assure protection of present and future public health, safety and welfare, or the environment. No further work shall be required under this Agreement and SOW if, based on historical information and the results of the Pre-RI Assessment or subsequent facility investigation, DEQ reasonably determines that there is no likely present source and pathway for the release of hazardous substances to surface water or sediments at or from Respondent's facility for which DEQ could require a removal action or remedial investigation under ORS 465.200 et seq. Further, should the pre-RI assessment or subsequent facility investigation provide enough information to re-evaluate the priority of the facility, Respondent may request that DEQ perform this evaluation. Should it be determined by DEQ that the facility no longer presents a high priority threat to present and future public health, safety, and welfare or the environment, no further RI work with respect to the uplands portions of the facility shall be required under this Agreement and SOW.

IV. REMEDIAL INVESTIGATION PROPOSAL

If DEQ determines that further RI work is required (or if Respondent elects not to perform a Pre-RI Assessment), Respondent shall prepare an RI proposal. The RI Proposal shall briefly discuss Respondent's proposed approach to the RI, addressing soil, groundwater, surface water, sediments, and air. The proposal will provide the framework for the RI Work Plan and will include at a minimum, a summary of data collected to date, a conceptual site model (including a conceptual site hydrogeologic model), a description of RI goals and objectives and an estimated schedule for completion of the RI. The RI proposal shall consider methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Investigation Work Plan.

V. REMEDIAL INVESTIGATION WORK PLAN

The work plan shall be developed in accordance with applicable Oregon Administrative Rules (OAR 340-122-010 through -115), DEQ guidance, and the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER Directive 9355.3-01, 1988, as appropriate. Existing data may be used if it meets data quality objectives for the RI. The results of the RI shall be utilized to guide data collection efforts performed as part of the Portland Harbor RI/FS Work Plan. The need for the RI Work Plan shall be evaluated based on the results of the pre-RI Assessment. The submitted work plan shall include, but not be limited to the following items:

A. PROJECT MANAGEMENT PLAN

The RI Work Plan shall include a proposed schedule for submittals and implementation of all proposed activities and phases pertaining to this scope of work (this schedule will include target dates for the submittal of a Risk Assessment work plan, and submittal of draft and final Remedial Investigation, and Risk Assessment reports); a description of the personnel (including subcontractors, if known) involved in the project, and their respective roles in the project; and a discussion of how variations from the approved work plan will be managed.

B. SITE DESCRIPTION

The RI work plan shall include a discussion of the current understanding of the physical setting of the facility and surrounding area; the facility history; hazardous substance and waste management history; facility operations conducted on, in, over or adjacent to the Willamette River and current facility conditions.

C. SITE CHARACTERIZATION PLAN

The Site Characterization plan shall be consistent with DEQ guidance and the requirements specified in OAR 340-122-080. The site characterization plan shall include, but not be limited to, characterization of the hazardous substances, characterization of the facility, identification of potential receptors and the collection and evaluation of information relevant to the identification of hot spots of contamination, and shall address the following:

1. Soils

Objective: To identify and characterize releases of hazardous substances from the facility to soils.

Scope: The plan shall supplement previous soil sampling at the facility. The plan shall address all areas of the facility which could potentially have received spills, leaks from tanks or

piping, been used for waste treatment or disposal, or have been affected by contaminated surface water or storm water runoff, and all other areas of the facility where soil contamination is known or suspected.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of soil contamination, determine the extent to which soil contamination may contribute to Willamette River sediment contamination, characterize the facility geology, determine the physical and chemical soil characteristics relevant to the RI, evaluate the potential for contaminant migration and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing soil.

2. **Groundwater**

Objective: To identify and characterize releases of hazardous substances from the facility to groundwater.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases of hazardous substances to groundwater from the facility.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of groundwater contamination, both on and, if applicable, off-site; estimate the rate of contaminant flux to the Willamette River; determine the extent to which free phase product is migrating to the Willamette River; characterize the facility hydrogeology, determine the physical and chemical water bearing zone characteristics relevant to the RI; evaluate the potential for contaminant migration through groundwater; and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing groundwater. Alternative methods for characterizing groundwater should be considered to accelerate the RI. Monitoring wells and other holes must be drilled, constructed and decommissioned in accordance with OAR Chapter 690, Division 240 and DEQ "Ground Water Monitoring Well, Drilling, Construction and Decommissioning" guidelines (DEQ 1992).

3. **Surface Water**

Objective: To identify and characterize releases of hazardous substances from the facility to surface water.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current, and potential impacts to surface waters from the facility.

Procedures: The plan shall be designed to determine the extent to which surface water may have been impacted by releases of hazardous substances at the facility; determine the nature and extent of surface water contamination; characterize the facility hydrology; determine the physical and chemical surface water characteristics relevant to the RI including flow characteristics; evaluate the potential for contaminant migration and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing surface water.

4. **Sediments**

Objective: To identify and characterize releases of hazardous substances from the facility to sediments.

Scope: The plan shall supplement previous investigations at the facility, shall identify and characterize all past, current, and potential releases of hazardous substances to sediments from the facility in a manner consistent with the Portland Harbor Sediment RI/FS. Characterization of the nature and extent of sediment contamination shall not be subject to this Agreement, but is contemplated to be completed through the Portland Harbor Sediment RI/FS.

Procedures: The plan shall be designed to identify sources of sediment contamination from the facility, and characterize release mechanisms from the facility to sediments. The plan shall include the proposed methodology for characterizing releases to sediments and as applicable shall utilize methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Remedial Investigation and Feasibility Study Work Plan.

5. **Air**

Objective: To identify and characterize any unpermitted release of hazardous substances to the air, from soil, surface water, or groundwater contamination at the facility.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases (e.g. contaminated soil or groundwater) of hazardous substances to air.

Procedures: The plan shall include the proposed methodology for evaluating air emissions using appropriate emission calculations and/or a field sampling program. The plan shall be designed to delineate the nature and extent of contamination, characterize the site climatology, determine the physical and chemical air characteristics relevant to the RI, evaluate the potential for contaminant migration to the Willamette River and surrounding areas and gather the information necessary to identify hot spots of contamination.

6. **Identification of Current and Reasonably Likely Future Land and Water Use**

Objective: To identify current and reasonably likely future land and water uses in the locality of the facility not including those of the Willamette River.

Scope: The plan shall be designed to identify current and reasonably likely future land and water uses for the purposes of identifying hot spots of contamination and conducting the baseline human health and ecological risk assessments based on OAR 340-122-080, DEQ Guidance, and the Portland Harbor Sediment Management Plan.

Procedures: The plan shall include the proposed methodology for identifying current and reasonably likely future land and water uses in the locality of the facility.

D. SAMPLING AND ANALYSIS PLAN (SAP)

Objective: To adequately document all sampling and analysis procedures.

Scope: In preparation of the SAP, the following guidance documents shall be utilized: Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/004 (OSWER Directive 9355.0-7B), March, 1987; Test Methods for Evaluating Solid Waste, SW-846; and A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001 (OSWER Directive 9355.0-14), December, 1987. The SAP shall address all topics listed in Environmental Cleanup Division Policy #760.000, Quality Assurance Policy.

Procedures: The work plan shall include a sampling and analysis plan (SAP). The SAP shall include quality assurance and quality control (QA/QC) procedures for both field and lab procedures. The SAP shall be sufficiently detailed to function as a manual for field staff.

E. HEALTH AND SAFETY PLAN (HASP)

Objective: To establish policies and procedures to protect workers and the public from the potential hazards posed by a hazardous materials site.

Scope: The HASP portion of the work plan shall comply with 29 CFR 1910.120 and OAR Chapter 437, Division 2.

Procedures: The HASP shall include a description of risks related to RI activities, protective clothing and equipment, training, monitoring procedures, decontamination procedures and emergency response actions.

F. MAPS

The work plan shall include a map or maps of the facility, which clearly shows facility topography, on-site structures, waste disposal areas and proposed sampling locations.

VI. EVALUATION AND IMPLEMENTATION OF SOURCE CONTROL MEASURES

Objective: To implement necessary source control measures to address contaminant migration to the Willamette River that warrants removal action under OAR 340-122-070.

Scope: The plan shall gather sufficient information to evaluate, design and implement necessary source control measures.

Procedures: The plan shall be designed to and conducted to characterize all release mechanisms to the Willamette River. Characterization data shall be adequate to evaluate, design and implement necessary source control measures. Source control measures shall address contaminant migration to the river through overland transport, storm water runoff, free phase product migration, direct release, and/or dissolved groundwater contaminant migration that warrant removal action under OAR 340-122-070.

Termination: Respondent's obligations with respect to any source control measures implemented under this SOW shall terminate upon implementation of a remedy or entry of a consent decree, unilateral order, or other order that requires remedial action with respect to the facility that effectively serves to control that source.

VII. RISK ASSESSMENT WORK PLAN

A. UPLAND HUMAN HEALTH RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the facility, for the purposes of characterizing current or reasonably likely future risks to human health as a result of a threatened or actual release(s) of a hazardous substance at or from the facility; documenting the magnitude of the potential risk at the facility; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The human health risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The human health risk assessment portion of the work plan shall be developed based on the requirements specified in OAR 340-122-084, DEQ guidance, and the Risk Assessment Guidance for Superfund - Human Health Evaluation Manual Part A, United States Environmental Protection Agency (EPA) Interim Final, July 1989 (RAGS-HHEM). A suggested outline for the human health evaluation is given in Exhibit 9-1 of the RAGS-HHEM. The work plan should use this outline as a framework for discussing the methodologies and assumptions to be used in assessing the potential human health risks at the facility.

Procedure: The plan shall describe the different tasks involved in preparing the human health risk assessment. The human health risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

The upland human health risk assessment shall be designed to achieve the following:

1. Develop appropriate exposure units considering the nature, extent, and distribution of contamination and the reasonably likely future land and water use in the locality of the facility;
2. Establish data quality objectives for each exposure unit identified;
3. Collect data appropriate to satisfy the data quality objectives for each exposure unit;
4. Identify contaminants of interest for each media of concern;
5. Develop exposure scenarios based on current and reasonably likely land use, facility features and populations potentially exposed;
6. Identify appropriate exposure factors for all exposure pathways to be evaluated;
7. Identify the appropriate toxicity factors for all exposure pathways to be evaluated; and
8. Quantify the risks to human health at the facility.

B. UPLAND ECOLOGICAL RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the facility, for the purposes of characterizing current or reasonably likely future risks to the environment as a result of a threatened or actual release(s) of a hazardous substance at or from the facility; quantifying the potential risk at a facility; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The ecological risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The ecological risk assessment will use a tiered approach (with four levels) to produce a focused and cost-effective assessment of risk. The ecological risk assessment work plan shall be developed based on the requirements specified in rule under OAR 340-122-084 and DEQ guidance.

Procedure: The plan shall describe the different tasks involved in preparing the ecological risk assessment. Ecological risk assessments may include a level I scoping plan; a level II

screening plan; a level III baseline plan; and a level IV field baseline plan. The level III and level IV baseline plans shall include an exposure analysis, an ecological response analysis, a risk characterization and an uncertainty analysis as required by OAR 340-122-084(3). The ecological risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

Terrestrial habitats and receptors shall be evaluated through the following approach:

1. Complete a Level I Scoping assessment per ODEQ guidance for the terrestrial portion of the facility.
2. Make a preliminary determination of locality of the facility with respect to terrestrial receptors and current and potential future exposure to facility-related contaminants.
3. Determine potential for presence/absence of terrestrial threatened or endangered species.

VIII. REPORTS

A. QUARTERLY REPORTS

Two (2) copies of the Quarterly Reports shall be submitted to DEQ by the 15th day of the quarter following the reporting period. The quarterly reports shall summarize activities performed, data results collected or received and problems encountered or resolved during the previous quarter and activities planned for the upcoming quarter.

B. REMEDIAL INVESTIGATION REPORT

The Remedial Investigation report shall follow the outline in Table 3-13 (page 3-30 - 3-31) in the CERCLA RI/FS guidance, as applicable, and address the items listed below:

1. **Executive Summary**.

2. **Introduction.**

3. **Facility Background**.

   A discussion and supporting maps of facility operations, facility description, facility setting, and current and reasonably likely future land and water uses.

4. **Study Area Investigation**.

   A discussion of the investigative procedures and results for soil, groundwater, surface water, sediments and air.

5. **Summary and Conclusions.**

A discussion of the nature, extent, distribution and environmental fate and transport of contaminants in soil, groundwater, surface water, sediments and air.

6. **Appendices.**

Detailed information supporting the results of the Remedial Investigation shall be submitted in the Appendices of the report.

C. **RISK ASSESSMENT REPORT**

1. **Human Health Risk Assessment Report**

The results of the human health risk assessment should follow DEQ risk assessment guidance for human health and RAGS-HHEM Part A.

2. **Ecological Risk Assessment Report**

The main sections of the ecological risk assessment report should follow specific DEQ guidance for report formats at each level (I-III).

D. **REPORT DISTRIBUTION.**

1. Three (3) bound copies and one (1) unbound copy of all reports should be submitted to DEQ.

2. DEQ requests that all copies be duplex printed on recycled paper.

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

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

March 2, 2000

Tom Zelenka
Schnitzer Investment Corporation
P.O. Box 10047
Portland, Oregon 97296-0047

Re: Schnitzer Investment Corporation
Remedial Investigation Agreement and
Scope of Work

Dear Mr. Zelenka:

Thank you for your prompt response to the Oregon Department of Environmental Quality (DEQ) request for performance of a remedial investigation (RI) at the Scnitzer Industrial Park located at 12005 N. Burgard Road in Portland, Oregon. Based on your willingness to proceed, DEQ has enclosed a copy of the Remedial Investigation Agreement and Scope of Work prepared for the Schnitzer Industrial Park (Schnitzer) facility.

As described in the Strategy Recommendation for the Schnitzer site dated November 1999, DEQ determined that remedial action might be necessary to protect public health, safety, welfare and the environment. In a letter dated November 24, 1999 DEQ requested that Schnitzer conduct a remedial investigation and feasibility study in accordance with the Environmental Cleanup Law, Oregon Revised Statutes (ORS) 465.200 *et seq.*

DEQ proposes that your performance of the remedial investigation be governed by the enclosed Voluntary Agreement for a Remedial Investigation (Agreement) and Scope of Work (SOW). The facility's remedial investigation will be coordinated with the Portland Harbor Remedial Investigation and Feasibility Study currently being pursued by DEQ. This will require commencement of the remedial investigation at the Schnitzer facility in the near future.

Please review the enclosed Agreement and SOW. It is DEQ's expectation that the enclosed Agreement be signed by March 31, 2000. Consequently, DEQ requests that any questions regarding the enclosed Agreement and SOW be resolved no later than 15 calendar days from the mailing of this letter. However, be advised that DEQ does not intend to substantially negotiate or revise the terms of this standard Agreement.

DEQ is required by Oregon Revised Statue 465.330 to recover remedial action costs incurred by DEQ. DEQ has incurred costs for Site Assessment activities including preparation of the Strategy Recommendation and draft Agreement. As of January 31, 2000, DEQ had incurred

costs of approximately $7,900.00. You will be receiving an invoice for these costs in the near future.

DEQ looks forward to working with you to address the environmental concerns at the Schnitzer site. You may reach me at (503) 229-5011 to discuss site specific aspects of your project. However, any questions regarding proposed changes to the Agreement or SOW or regarding possible DEQ actions as a result of non-compliance, please contact Eric Blischke, Portland Harbor Coordinator at (503) 229-5648 or Mike Rosen, Portland Harbor Manager at (503) 229-6712.

Sincerely,

Alicia C. Voss

Alicia C. Voss
Voluntary Cleanup and Portland Harbor Section

Enclosures

c: Mary Wahl, DEQ/WPMD
Neil Mullane, DEQ/NWR
Kurt Burkholder or Lynne Perry, DOJ
Mike Rosen, DEQ/NWR
Eric Blischke DEQ/NWR
ESCI File No.:2355

VOLUNTARY AGREEMENT FOR
REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

DEQ NO. WMCVC- NWR- 0015

BETWEEN: Schnitzer Investment Corporation (Sachnitzer)

AND: Oregon Department of Environmental Quality (DEQ)

EFFECTIVE DATE: February 29, 2000

Pursuant to ORS 465.260(2) and (4), the Director, Oregon Department of Environmental Quality (DEQ), enters this Agreement with Schnitzer Investment Corporation (Schnitzer). This Agreement contains the following provisions:

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I. RECITALS

A. Schnitzer is a "person" under ORS 465.200(20).

B. The Schnitzer site occupies approximately 200 acres at 12005 N. Burgard Road, Portland, Oregon. A vicinity map and a site map are included in Attachment A to this Agreement.

C. The Schnitzer site is located within or near what is known as the Portland Harbor, a six-mile reach of the Willamette River between Sauvie Island and Swan Island. A 1997 study by DEQ and the U.S. Environmental Protection Agency identified elevated levels of hazardous substances in shallow, near-shore sediments throughout the Portland Harbor.

D. Schnitzer has owned the Site since 1972. Current site operations are varied. Schnitzer Steel Industries (SSI) operates a scrap metal recycling yard and deep marine terminal at the Site. SSI processes, stores, and exports recyclable materials on approximately 93 acres. Its shipping docks are located along the Site's western riverfront and an approximate 11-acre slip (International Terminals Slip). Other current Site operations include nonferrous metals recovery, fabrication and painting of automobile transport trailers, truck maintenance, ocean shipping container storage and repair facility, machine shop, sandblasting, and the manufacture of protective coatings. Recent site operations also included processing, storing and shipping of cooking oils and warehousing.

E. Materials used and stored on-site include diesel, hydraulic oil, waste oil and other petroleum products; paint, hardeners, and solvents. Primary wastes generated by SSI and other site operators include non-metallic rail car and other scrap operation debris, used oil, used antifreeze, used solvent and solid wastes. At least eight releases of petroleum to the Willamette River from the Schnitzer site have been reported since 1979. Previous investigations have detected contamination in soil and groundwater on, and sediments adjacent to, the Site.

F. The following contaminants were detected in sediment samples collected adjacent to the Schnitzer site at concentrations exceeding baseline concentrations established for the Portland Harbor Study Area: antimony, arsenic, barium, cadmium, cobalt, copper, chromium, iron, manganese, lead, mercury, nickel, silver, zinc, organotins, bis (2-ethylhexl) phthalate, butylbenzlphthalate; carbazole, dibenzofuran, 2-methylnaphthylene, and low- and high- molecular weight polynuclear aromatic hydrocarbons (LPAHs and HPAHs, respectively). Concentrations of antimony, carbazole, dibenzofuran, mercury, zinc, LPAHs, and HPAHs were all more than twice their respective baseline values. Concentrations of organotins were more than 150 times the baseline value. Investigations have also disclosed contamination of soil and groundwater at the Site.

The substances described in this section are "hazardous substances" under ORS 465.200(15). The presence of hazardous substances in soil, groundwater, and sediments at or near the site constitutes a "release" or "threat of release" into the environment under ORS 465.200(21). The Schnitzer site and the contaminated sediments at or near the site are a "facility" under ORS 465.200(12).

F. DEQ considers the activities required by this Agreement to be necessary to protect public health, safety, and welfare and the environment.

II. AGREEMENT

The parties agree as follows:

A. Work

1. Remedial Investigation

Schnitzer shall perform a remedial investigation satisfying OAR 340-122-0080, the terms and schedule of a DEQ approved work plan developed by Schnitzer, and applicable elements of the Scope of Work contained in Attachment B to this Agreement. Schnitzer may specify, in the proposed work plan, elements of the Scope of Work that Schnitzer considers inapplicable or unnecessary to the remedial investigation for the facility. Schnitzer may propose to perform the work in phases or operable units.

2. Source Control Measures

For any unpermitted discharge or migration of contaminants to the Willamette River or sediments identified in the remedial investigation, Schnitzer shall evaluate such discharge or migration, and then develop and implement source control measures in accordance with the Scope of Work.

3. DEQ-Review

DEQ shall provide review, approvals/disapprovals, and oversight in accordance with the schedule set forth in the Scope of Work, or as soon as thereafter practicable in the event staff resources or workload prevent compliance with the schedule. Any DEQ delay shall correspondingly extend Schnitzer's schedule for a related deliverable or activity.

4. Additional Measures

Schnitzer may elect at any time during the term of this Agreement to undertake remedial measures other than those required under this Agreement necessary to address a release or threatened release of hazardous substances at the facility. Such other measures shall be subject to prior approval by DEQ. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action immediately.

5. Dredging Activities

Schnitzer shall notify the DEQ project manager at least ninety (90) days before undertaking any dredging or other activity that might disturb sediments at or near the

facility. In its notice of dredging or other activity, Schnitzer shall: (a) Evaluate the concentration of hazardous substances present in and below the affected sediments based on sampling and analyses performed in advance of the notice; (b) Demonstrate that both the activity and the subsequent management and disposal of dredged spoils will be conducted in a manner protective of human health and the environment; and (c) Evaluate the effect of the activity on the Portland Harbor Remedial Investigation and Feasibility Study. DEQ shall also be notified of and copied on any permit application to the Oregon Division of State Lands or United States Army Corps of Engineers for dredging or other activity disturbing sediments adjacent to the Schnitzer site.

B. Public Participation

Upon execution of this Agreement, DEQ will provide public notice of this Agreement through issuance of a press release, at a minimum to a local newspaper of general circulation, describing the measures required under this Agreement. Copies of the Agreement will be made available to the public. DEQ shall provide Schnitzer a draft of such press release and consider any comments by Schnitzer on the draft press release, before publication.

C. DEQ Access and Oversight

1. Schnitzer shall allow DEQ to enter all portions of the facility at all reasonable times for the purposes, among other things, of inspecting records relating to work under this Agreement; observing Schnitzer's progress in implementing this Agreement; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by Schnitzer; and, using camera, sound recording, or other recording equipment for purposes relating to work under this Agreement. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before entering the facility. DEQ shall adhere to all health and safety requirements of the facility, as identified in the applicable Health and Safety Plan, including, but not limited to, requirements in portions of the Site where outside visitors must be accompanied by company personnel.

2. Schnitzer shall permit DEQ to inspect and copy all records, files, photographs, documents, and data relating to work under this Agreement, except that Schnitzer shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege. DEQ shall use its best efforts, but not be obligated, to provide reasonable notice before records inspection and copying requests.

3. Attorney-client and work product privileges may not be asserted with respect to any records required under Section II.G.1 and II.G.2 of this Agreement. Schnitzer shall identify to DEQ--by addressor-addressee, date, general subject matter, and distribution--any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by Schnitzer.

D. Project Managers

1. To the extent possible, all reports, notices, and other communications required under or relating to this Agreement shall be directed to:

DEQ Project Manager:	Schnitzer Project Manager:
Alicia C. Voss Voluntary Cleanup and Portland Harbor Section 2020 SW Fourth, Suite 400 Portland, Oregon 97204 503-229-5011	Tom Zelenka Schnitzer Investment Corporation P.O. Box 10047 Portland, Oregon 97296-0047 503-224-9900

2. Schnitzer's and DEQ's Project Managers shall be available and have the authority to make day-to-day decisions necessary to complete the Scope of Work under this Agreement.

E. Notice and Samples

Schnitzer shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Agreement at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon DEQ's verbal request, Schnitzer shall make available to DEQ a split or duplicate of any sample taken pursuant to this Agreement. DEQ shall make every effort to complete analysis of any split or duplicate sample on a schedule consistent with Schnitzer's schedule for related activities. DEQ shall provide Schnitzer with copies of all analytical data from such samples as soon as practicable.

F. Quality Assurance

Schnitzer shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/ Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Agreement shall be consistent with DEQ's "Quality Assurance Policy No. 760.00". Schnitzer shall ensure that each laboratory

used by Schnitzer for analysis performs such analyses in accordance with such provisions.

G. Records

1. In addition to those technical reports and documents specifically required under this Agreement, Schnitzer shall provide to DEQ within thirty (30) days of DEQ's written request copies of existing documents relating to work required under this Agreement, including QA/QC memoranda and audits, draft and final plans, final reports, task memoranda, field notes, and laboratory analytical data that have undergone data quality validation.

2. If DEQ determines that review of raw data or preliminary laboratory reports is necessary in order to ensure protection of public health, safety, and welfare and the environment, that information will be provided by Schnitzer within_ten (10) days of DEQ's written request.

3. Schnitzer and DEQ shall preserve all records and documents in possession or control of Schnitzer and DEQ, respectively, or their employees, agents, or contractors that relate in any way to activities under this Agreement for at least five (5) years after termination under Section II.R. of this Agreement; provided that after such 5-year period, Schnitzer and DEQ shall provide the other sixty (60) days notice before destruction or other disposal of such records and make them available for inspection and copying.

4. Schnitzer may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Agreement. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If Schnitzer does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to Schnitzer.

H. Progress Reports

During each quarter of this Agreement, Schnitzer shall deliver to DEQ on or before the fifteenth (15th) day following the end of the calendar quarter two (2) copies of a progress report containing the following items. DEQ anticipates that the progress report will not exceed 2 pages in length.

1. Actions taken under this Agreement during the previous quarter;

2. Actions scheduled to be taken in the next quarter;

3. Sampling, test results, and any other data generated by Schnitzer during the previous quarter; and

4. A description of any problems experienced during the previous quarter and the actions taken to resolve them.

I. Other Applicable Laws

Subject to ORS 415.315(3), all actions under this Agreement shall be performed in accordance with all applicable federal, state, and local laws and regulations.

J. Reimbursement of DEQ Oversight Costs

1. Prior to entry of this Agreement, DEQ shall submit to Schnitzer an estimate of costs incurred by DEQ to date for site assessment activities and preparation and negotiation of this Agreement. Upon entry of this Agreement, DEQ shall submit to Schnitzer a statement for costs actually and reasonably, incurred by DEQ prior to entry of this Agreement for site assessment activities and preparation and negotiation of this Agreement and an estimate of future DEQ oversight costs associated with Schnitzer's implementation of this Agreement.

2. DEQ shall submit to Schnitzer a monthly statement of costs incurred after issuance of this Agreement by DEQ in connection with oversight of Schnitzer's implementation of this Agreement. Each invoice will include a summary of costs billed to date. DEQ's invoice for direct costs will include a direct labor summary showing the persons charging time, the amount of time, and the nature of the work performed.

3. DEQ or State of Oregon oversight costs payable by Schnitzer shall include both direct and indirect costs. Direct costs shall include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs shall include those general management and support costs of the DEQ and of the applicable administering division (e.g. Waste Prevention and Management Division, Environmental Cleanup Division, Northwest Region) that are allocable to DEQ oversight of this Agreement and not charged as direct, site-specific costs. Indirect costs shall be based on a percentage of direct personal services costs. DEQ oversight costs also shall include the surcharge required by ORS 465.333.

4. Within thirty (30) days of receipt of a DEQ statement, Schnitzer shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund". Schnitzer shall pay simple interest of 9% per annum on the unpaid balance of any oversight costs, which interest shall begin to accrue at the end of the 30-day payment period.

K. Force Majeure

1. If any event occurs that is beyond Schnitzer's reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Agreement, Schnitzer shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which Schnitzer proposes to carry out such measures. Schnitzer shall confirm in writing this information within five (5) working days of the verbal notification.

2. If Schnitzer demonstrates to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the reasonable control and despite the due diligence of Schnitzer, DEQ shall extend times for performance of related activities under this Agreement as appropriate. Circumstances or events beyond Schnitzer's control might include but are not limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond Schnitzer's reasonable_control.

L. Prior Approval

Where DEQ review and approval is required for any plan or activity under this Agreement, Schnitzer shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by Schnitzer. Prior approval shall not be required in emergencies where Schnitzer reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that Schnitzer notifies DEQ of the emergency and action immediately.

M. Dispute Resolution

In the event of disagreement between Schnitzer and DEQ regarding implementation of this Agreement, Schnitzer and DEQ shall, in the following order: 1) make a good faith effort to resolve the dispute between Project Managers; 2) if necessary, refer the dispute for resolution by the immediate supervisors of the Project Managers; and 3) if necessary, provide each other their respective positions in writing and refer the dispute for resolution by DEQ's Administrator of the Waste Prevention and Management Division or the appropriate Region Administrator and Schnitzer's (ADMINISTRATOR'S COUNTERPART). DEQ's final decision after such dialogue shall be enforceable under this Agreement.

N. Enforcement of Agreement and Reservation of Rights

1. In the event of Schnitzer's failure to comply with this Agreement (including any failure to reimburse oversight costs), DEQ may enforce this Agreement as an order under ORS 465.260(5) or may terminate this Agreement after thirty (30) days written notice to Schnitzer.

2. In the event of DEQ's failure to provide oversight in accordance with this Agreement, Schnitzer may terminate this Agreement after thirty (30) days written notice to DEQ. Costs incurred or obligated by DEQ before the effective date of any termination of this Agreement shall be owed under the Agreement notwithstanding such termination.

3. Schnitzer does not admit any facts, legal issues, liability, or violation of law by virtue of entering this Agreement.

4. Nothing in this Agreement shall prevent Schnitzer from exercising any rights of contribution or indemnification Schnitzer might have against any person regarding activities under this Agreement; provided Schnitzer waives any right it might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund for costs incurred under this Agreement.

5. Schnitzer agrees not to litigate, in any proceeding brought by DEQ to enforce this Agreement, any issue other than Schnitzer's or DEQ's compliance with this Agreement.

6. In the event that the Site becomes part of a federal National Priority List site, DEQ agrees to cooperate with Schnitzer to encourage EPA to accept satisfactory and complete performance under this Agreement as fulfillment of Schnitzer's obligation to perform the same work under a subsequently issued EPA Order or Consent Decree. If EPA does not agree that such performance under this Agreement fulfills the EPA-imposed obligations, the Scope of Work may be modified or the Agreement terminated by DEQ, as DEQ deems necessary to avoid duplicative work or inconsistent obligations and/or to satisfy EPA obligations.

O. Hold Harmless

1. Schnitzer shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of Schnitzer or its officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by Schnitzer or its agents in carrying out activities under this Agreement.

2. To the extent permitted by Article XI, Section 7, of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless Schnitzer and its officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of the State of Oregon or its commissions, agencies, officers, employees, contractors, or agents (except for acts approving or omissions constituting approval of any activity of Schnitzer under this Agreement). Schnitzer shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Agreement.

P. Parties Bound

This Agreement shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Agreement. No change in ownership or corporate or partnership status relating to the facility shall in any way alter Schnitzer's obligations under this Agreement, unless otherwise approved in writing by DEQ.

Q. Modification

DEQ and Schnitzer may modify this Agreement by mutual written agreement.

R. Duration and Termination

Upon completion of work under this Agreement, Schnitzer shall submit to DEQ a written notice of completion. This Agreement shall be deemed satisfied and terminated upon payment of all oversight costs owed and upon DEQ's issuance of a letter acknowledging satisfactory completion of activities in accordance with this Agreement. Such letter shall be issued within sixty (60) days of receipt of notice of completion evidencing satisfactory completion of activities in accordance with this Agreement and payment of outstanding DEQ oversight costs, or as soon thereafter as is reasonably practicable.

Schnitzer

By: _____ Date: _____
(Name)

_____
(Title)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

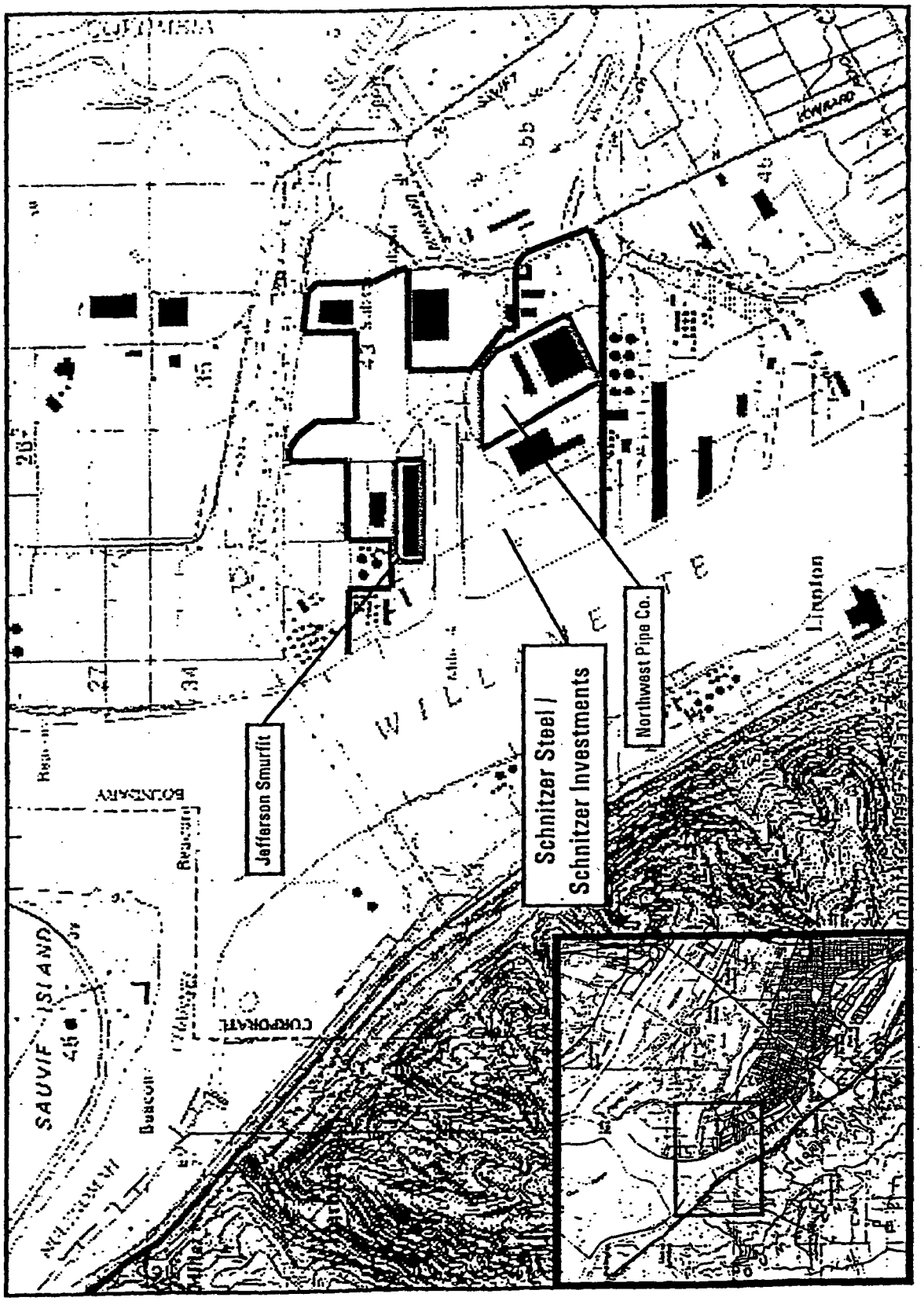
By: _____ Date: _____
(Name)

_____
(Title)

KBB/GEN30415

ATTACHMENT A

Figure 1 Site Location



ATTACHMENT B

SCOPE OF WORK FOR
REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

I. SCHEDULE

Respondent shall submit for DEQ review and approval Remedial Investigation (RI), Risk Assessment (RA), and Source Control Measures (SCM) work plans and reports which address all elements of this Scope of Work (SOW). Elements of the SOW may be addressed by alternative means or by using existing data or information to the extent that the data are applicable, meet the objectives of the RI, and are of acceptable QA/QC.

All work completed under this Agreement shall proceed in accordance with the schedule below:

RI Proposal (may include a Pre-RI Assessment)	A RI proposal will be submitted to DEQ within 30 days of issuance of this Agreement.
DEQ Review and Comment	To Respondent within 30 days of receipt of RI Proposal.
Draft RI Work Plan	To DEQ within 45 days of receipt of DEQ comments on RI Proposal.
DEQ Review and Comment	To Respondent within 30 days of receipt of draft RI Work Plan.
Final RI Work Plan	To DEQ within 30 days of receipt of DEQ comments on draft RI Work Plan.
Initiation of RI	To be specified in Project Management section of RI Work Plan.
Initiation of SCM	To be specified in Project Management section of RI Work Plan.

The schedule for additional deliverables specified in this SOW (e.g., Risk Assessment work plan, Remedial Investigation report, Risk Assessment report, and Source Control Measure work plan) should be specified in the Project Management Plan section of the RI work plan.

All work plans may be amended by Respondent as necessary to reflect or incorporate newly discovered information and/or environmental conditions. Additional work plans and work plan amendments are subject to DEQ review and approval and shall be processed according to schedules negotiated between the parties at the time of each phase change or task addition. Respondent shall initiate and complete work according to the schedule specified in the applicable approved work plan or amendment.

II. OBJECTIVES

Work performed under this Agreement shall complement and incorporate existing site information with the following specific objectives:

A. Identify and characterize all hazardous substance source areas at the **Schnitzer** facility. Source areas shall be characterized through a review of historical information and the collection of environmental samples for chemical, geotechnical, and other analyses. The evaluation of source areas shall focus on upland operations that may have resulted in a release of hazardous substances.

B. Evaluate all contaminant migration pathways at the **Schnitzer** facility. Key elements relevant to contaminant migration include, but are not limited to, the rate and direction of groundwater flow, subsurface contaminant migration to the Willamette River, overland contaminant migration to the Willamette River, storm water discharge to the Willamette River, direct and indirect release to the Willamette River, preferential migration pathways, volatilization, dust entrainment, and riverbank seepage.

C. Determine the nature, extent, and distribution of hazardous substances in affected media at the **Schnitzer** facility. This analysis should focus on the vertical and horizontal extent of source area contamination, groundwater contamination, and surface and subsurface soil contamination.

D. Identify all current and reasonably likely future human and ecological receptors at the **Schnitzer** facility. Receptors shall include human and ecological receptors that may be exposed to hazardous substances at the facility. This analysis should consider all relevant contaminant migration pathways and the nature, extent and distribution of hazardous substances in affected media.

E. Collect sufficient data and historical information to allow the identification of possible areas of sediment contamination adjacent to the **Schnitzer** facility. Areas of potential sediment contamination shall be characterized through the Portland Harbor Sediment RI/FS. Data collection and evaluation shall consider the potential for contaminant migration to the Willamette River and over or in-water releases of hazardous substances resulting from operations at the **Schnitzer** facility.

F. Evaluate the risk to human health and the environment from releases of hazardous substances at the **Schnitzer** facility through the performance of human health and ecological risk assessments.

G. Identify hot spots of contamination, if any, at the **Schnitzer** facility.

H. Generate or use data of sufficient quality for site characterization and risk assessment at the **Schnitzer** facility.

I. Develop the information necessary to evaluate and implement necessary source control measures to address contaminant releases from the **Schnitzer** facility.

J. Implement necessary source control measures to address contaminant releases from the **Schnitzer** facility.

III. REMEDIAL INVESTIGATION PROPOSAL

The RI Proposal shall briefly discuss Respondent's proposed approach to the RI, addressing soil, groundwater, surface water, sediments, and air. The proposal will provide the framework for the RI Work Plan and will include at a minimum, a summary of data collected to date, a conceptual site model (including a conceptual site hydrogeologic model), a description of RI goals and objectives and an estimated schedule for completion of the RI. The RI proposal shall consider methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Investigation Work Plan.

The RI proposal may include a plan for a Pre-RI Assessment that includes focused sampling activities to assess potential sources of hazardous substances and determine if there has been a release from these sources to soil, groundwater, surface water, air, or sediments, as appropriate. The primary purpose of the Pre-RI assessment is to determine which media and pathways (e.g., groundwater, surface water, air, and direct contact) are affected by site related hazardous substances. Prior to conducting a Pre-RI Assessment, the Respondent shall submit a Work Plan that presents the proposed approach to evaluating potential sources of hazardous substances and migration pathways for DEQ review and approval. The results of the Pre-RI Assessment shall be used to determine whether further action is needed to assure protection of present and future public health, safety and welfare, or the environment. No further RI work regarding sediments shall be required under this Agreement and SOW if DEQ determines, based on historical information and the results of the Pre-RI Assessment, that there is no likely past or present source or pathway for the release of hazardous substances to sediments at Respondent's facility.

IV. REMEDIAL INVESTIGATION WORK PLAN

The work plan shall be developed in accordance with applicable Oregon Administrative Rules (OAR 340-122-010 through -115), DEQ guidance, and the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER Directive 9355.3-01, 1988, as appropriate. Existing data may be used if it meets data quality objectives for the RI. The results of the RI shall be utilized to guide data collection efforts performed as part of the Portland Harbor RI/FS Work Plan. The need for the RI Work Plan shall be

evaluated based on the results of the pre-RI Assessment. The submitted work plan shall include, but not be limited to the following items:

A. PROJECT MANAGEMENT PLAN

The RI Work Plan shall include a proposed schedule for submittals and implementation of all proposed activities and phases pertaining to this scope of work (this schedule will include target dates for the submittal of a Risk Assessment work plan, and submittal of draft and final Remedial Investigation, and Risk Assessment reports); a description of the personnel (including subcontractors, if known) involved in the project, and their respective roles in the project; and a discussion of how variations from the approved work plan will be managed.

B. SITE DESCRIPTION

The RI work plan shall include a discussion of the current understanding of the physical setting of the site and surrounding area; the site history; hazardous substance and waste management history; site operations conducted on, in, over or adjacent to the Willamette River and current site conditions.

C. SITE CHARACTERIZATION PLAN

The Site Characterization plan shall be consistent with DEQ guidance and the requirements specified in OAR 340-122-080. The site characterization plan shall include, but not be limited to, characterization of the hazardous substances, characterization of the facility, identification of potential receptors and the collection and evaluation of information relevant to the identification of hot spots of contamination, and shall address the following:

1. **Soils**

Objective: To identify and characterize releases of hazardous substances from the facility to soils.

Scope: The plan shall supplement previous soil sampling at the facility. The plan shall address all areas which could potentially have received spills, leaks from tanks or piping, been used for waste treatment or disposal, or have been affected by contaminated surface water or storm water runoff, and all other areas where soil contamination is known or suspected.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of soil contamination, determine the extent to which soil contamination may contribute to Willamette River sediment contamination, characterize the site geology, determine the physical and chemical soil characteristics relevant to the RI, evaluate the potential for contaminant migration and gather the information necessary to identify hot

spots of contamination. The plan shall include the proposed methodology for characterizing soil.

2. **Groundwater**

Objective: To identify and characterize releases of hazardous substances from the facility to groundwater.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases of hazardous substances to groundwater.

Procedures: The plan shall be designed and conducted to determine the vertical and lateral extent of groundwater contamination, both on and, if applicable, off-site; estimate the rate of contaminant flux to the Willamette River; determine the extent to which free phase product is migrating to the Willamette River; characterize the site hydrogeology, determine the physical and chemical water bearing zone characteristics relevant to the RI; evaluate the potential for contaminant migration through groundwater; and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing groundwater. Alternative methods for characterizing groundwater should be considered to accelerate the RI. Monitoring wells and other holes must be drilled, constructed and decommissioned in accordance with OAR Chapter 690, Division 240 and DEQ "Ground Water Monitoring Well, Drilling, Construction and Decommissioning" guidelines (DEQ 1992).

3. **Surface Water**

Objective: To identify and characterize releases of hazardous substances from the facility to surface water.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current, and potential impacts to surface waters.

Procedures: The plan shall be designed to determine the extent to which surface water may have been impacted by releases of hazardous substances at the facility; determine the nature and extent of surface water contamination; characterize the site hydrology; determine the physical and chemical surface water characteristics relevant to the RI including flow characteristics; evaluate the potential for contaminant migration and gather the information necessary to identify hot spots of contamination. The plan shall include the proposed methodology for characterizing surface water.

4. **Sediments**

Objective: To identify and characterize releases of hazardous substances from the facility to sediments.

Scope: The plan shall supplement previous investigations at the facility, shall identify and characterize all past, current, and potential releases of hazardous substances to sediments in a manner consistent with the Portland Harbor Sediment RI/FS. Characterization of the nature and extent of sediment contamination shall be completed through the Portland Harbor Sediment RI/FS.

Procedures: The plan shall be designed to identify sources of sediment contamination, characterize release mechanisms from the site to sediments, and determine Willamette River bathymetry adjacent to the facility. The plan shall include the proposed methodology for characterizing releases to sediments and shall utilize methodologies presented in the Portland Harbor Sediment Management Plan and the Portland Harbor Sediment Remedial Investigation and Feasibility Study Work Plan.

5. **Air**

Objective: To identify and characterize the release of hazardous substances to the air, from soil, surface water, or groundwater contamination at the facility.

Scope: The plan shall supplement previous investigations at the facility and shall identify and characterize all past, current and potential releases (e.g. contaminated soil or groundwater) of hazardous substances to air.

Procedures: The plan shall include the proposed methodology for evaluating air emissions using appropriate emission calculations and/or a field sampling program. The plan shall be designed to delineate the nature and extent of contamination, characterize the site climatology, determine the physical and chemical air characteristics relevant to the RI, evaluate the potential for contaminant migration to the Willamette River and surrounding areas and gather the information necessary to identify hot spots of contamination.

6. **Identification of Current and Reasonably Likely Future Land and Water Use**

Objective: To identify current and reasonably likely future land and water uses in the locality of the facility.

Scope: The plan shall be designed to identify current and reasonably likely future land and water uses for the purposes of identifying hot spots of contamination and conducting the baseline human health and ecological risk assessments based on OAR 340-122-080, DEQ Guidance, and the Portland Harbor Sediment Management Plan.

Procedures: The plan shall include the proposed methodology for identifying current and reasonably likely future land and water uses in the locality of the facility.

D. SAMPLING AND ANALYSIS PLAN (SAP)

Objective: To adequately document all sampling and analysis procedures.

Scope: In preparation of the SAP, the following guidance documents shall be utilized: Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/004 (OSWER Directive 9355.0-7B), March, 1987; Test Methods for Evaluating Solid Waste, SW-846; and A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001 (OSWER Directive 9355.0-14), December, 1987. The SAP shall address all topics listed in Environmental Cleanup Division Policy #760.000, Quality Assurance Policy.

Procedures: The work plan shall include a sampling and analysis plan (SAP). The SAP shall include quality assurance and quality control (QA/QC) procedures for both field and lab procedures. The SAP shall be sufficiently detailed to function as a manual for field staff.

E. HEALTH AND SAFETY PLAN (HASP)

Objective: To establish policies and procedures to protect workers and the public from the potential hazards posed by a hazardous materials site.

Scope: The HASP portion of the work plan shall comply with 29 CFR 1910.120 and OAR Chapter 437, Division 2.

Procedures: The HASP shall include a description of risks related to RI activities, protective clothing and equipment, training, monitoring procedures, decontamination procedures and emergency response actions.

F. MAPS

The work plan shall include a map or maps of the facility, which clearly shows site topography, on-site structures, waste disposal areas and proposed sampling locations.

V. EVALUATION AND IMPLEMENTATION OF SOURCE CONTROL MEASURES

Objective: To implement source control measures to address contaminant migration to the Willamette River that warrants removal action under OAR 340-122-070.

Scope: The plan shall gather sufficient information to evaluate and implement necessary source control measures.

Procedures: The plan shall be designed to and conducted to characterize all release mechanisms to the Willamette River. Characterization data shall be adequate to evaluate, design and implement necessary source control measures. Source control measures shall address contaminant migration to the river through overland transport, storm water runoff, free phase product migration, direct release, and/or dissolved groundwater contaminant migration.

VI. RISK ASSESSMENT WORK PLAN

A. UPLAND HUMAN HEALTH RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the site, for the purposes of characterizing current or reasonably likely future risks to human health as a result of a threatened or actual release(s) of a hazardous substance; documenting the magnitude of the potential risk at the site; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The human health risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The human health risk assessment portion of the work plan shall be developed based on the requirements specified in OAR 340-122-084, DEQ guidance, and the Risk Assessment Guidance for Superfund - Human Health Evaluation Manual Part A, United States Environmental Protection Agency (EPA) Interim Final, July 1989 (RAGS-HHEM). A suggested outline for the human health evaluation is given in Exhibit 9-1 of the RAGS-HHEM. The work plan should use this outline as a framework for discussing the methodologies and assumptions to be used in assessing the potential human health risks at the site.

Procedure: The plan shall describe the different tasks involved in preparing the human health risk assessment. The human health risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

The upland human health risk assessment shall be designed to achieve the following:

1. Develop appropriate exposure units considering the nature, extent, and distribution of contamination and the reasonably likely future land and water use in the locality of the facility;
2. Establish data quality objectives for each exposure unit identified;
3. Collect data appropriate to satisfy the data quality objectives for each exposure unit;

4. Identify contaminants of interest for each media of concern;
5. Develop exposure scenarios based on current and reasonably likely land use, site features and populations potentially exposed;
6. Identify appropriate exposure factors for all exposure pathways to be evaluated;
7. Identify the appropriate toxicity factors for all exposure pathways to be evaluated; and
8. Quantify the risks to human health at the facility.

B. UPLAND ECOLOGICAL RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the site, for the purposes of characterizing current or reasonably likely future risks to the environment as a result of a threatened or actual release(s) of a hazardous substance; quantifying the potential risk at a site; supporting risk management decisions; and establishing remedial action goals if necessary.

Scope: The ecological risk assessment shall evaluate risk in the context of current and reasonably likely future land and water uses and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The ecological risk assessment will use a tiered approach (with four levels) to produce a focused and cost-effective assessment of risk. The ecological risk assessment work plan shall be developed based on the requirements specified in rule under OAR 340-122-084 and DEQ guidance.

Procedure: The plan shall describe the different tasks involved in preparing the ecological risk assessment. Ecological risk assessments may include a level I scoping plan; a level II screening plan; a level III baseline plan; and a level IV field baseline plan. The level III and level IV baseline plans shall include an exposure analysis, an ecological response analysis, a risk characterization and an uncertainty analysis as required by OAR 340-122-084(3). The ecological risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, then Respondent shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment.

Terrestrial habitats and receptors shall be evaluated through the following approach:

1. Complete a Level I Scoping assessment per ODEQ guidance for the terrestrial portion of the site.
2. Make a preliminary determination of locality of the facility with respect to terrestrial receptors and current and potential future exposure to site-related contaminants.
3. Determine potential for presence/absence of terrestrial threatened or endangered species.

VII. REPORTS

A. QUARTERLY REPORTS

Two (2) copies of the Quarterly Reports shall be submitted to DEQ by the 15th day of the quarter following the reporting period. The quarterly reports shall summarize activities performed, data results collected or received and problems encountered or resolved during the previous quarter and activities planned for the upcoming quarter.

B. REMEDIAL INVESTIGATION REPORT

The Remedial Investigation report shall follow the outline in Table 3-13 (page 3-30 - 3-31) in the CERCLA RI/FS guidance, as applicable, and address the items listed below:

1. **Executive Summary.**

2. **Introduction.**

3. **Site Background.**

   A discussion and supporting maps of facility operations, site description, site setting, and current and reasonably likely future land and water uses.

4. **Study Area Investigation.**

   A discussion of the investigative procedures and results for soil, groundwater, surface water, sediments and air.

5. **Summary and Conclusions.**

   A discussion of the nature, extent, distribution and environmental fate and transport of contaminants in soil, groundwater, surface water, sediments and air.

6. **Appendices.**

   Detailed information supporting the results of the Remedial Investigation shall be submitted in the Appendices of the report.

C. RISK ASSESSMENT REPORT

1. **Human Health Risk Assessment Report**

   The results of the human health risk assessment should follow DEQ risk assessment guidance for human health and RAGS-HHEM Part A.

2. **Ecological Risk Assessment Report**

The main sections of the ecological risk assessment report should follow specific DEQ guidance for report formats at each level (I-III).

D. REPORT DISTRIBUTION.

1. Three (3) bound copies and one (1) unbound copy of all reports should be submitted to DEQ.

2. DEQ requests that all copies be duplex printed on recycled paper.

VOLUNTARY AGREEMENT FOR
REMEDIAL INVESTIGATION AND SOURCE CONTROL MEASURES

DEQ NO. WPMVC- _____

BETWEEN: **[NAME of PARTY]**

AND: **Oregon Department of Environmental Quality (DEQ)**

EFFECTIVE DATE: February __, 2000

Pursuant to ORS 465.260(2) and (4), the Director, Oregon Department of Environmental Quality (DEQ), enters this Agreement with [NAME of PARTY]. This Agreement contains the following provisions:

Page

I. Recitals.....
II. Agreement.....
A. Work.....
B. Public Participation.....
C. DEQ Access and Oversight.....
D. Project Managers.....
E. Notice and Samples.....
F. Quality Assurance.....
G. Records.....
H. Progress Reports.....
I. Other Applicable Laws.....
J. Reimbursement of DEQ Costs.....
K. Force Majeure.....
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M. Dispute Resolution.....
N. Enforcement of Agreement and Reservation of Rights.....
O. Hold Harmless.....
P. Parties Bound.....
Q. Modification.....
R. Duration and Termination.....

I. RECITALS

A. [NAME of PARTY] is a "person" under ORS 465.200(20).

B. The [NAME OF PARTY] site occupies approximately [ ] acres in Portland, Oregon. A vicinity map and a site map are included in Attachment A to this Agreement.

C. The [NAME OF PARTY] site is located within or near what is known as the Portland Harbor, a six-mile reach of the Willamette River between Sauvie Island and Swan Island. A 1997 study by DEQ and the U.S. Environmental Protection Agency identified elevated levels of hazardous substances in shallow, near-shore sediments throughout the Portland Harbor.

D. [Add additional information describing releases of hazardous substances upland and to Portland Harbor]

E. The substances described in this section are "hazardous substances" under ORS 465.200(15). The [NAME OF PARTY] site is a "facility" under ORS 465.200(12). The presence of hazardous substances in [IDENTIFY MEDIA] at or near the facility constitutes a "release" or "threat of release" into the environment under ORS 465.200(21).

F. DEQ considers the activities required by this Agreement to be necessary to protect public health, safety, and welfare and the environment.

II. AGREEMENT

The parties agree as follows:

A. Work

1. Remedial Investigation

[NAME of PARTY] shall perform a remedial investigation satisfying OAR 340-122-0080, the terms and schedule of a DEQ approved work plan developed by [NAME of PARTY], and applicable elements of the Scope of Work contained in Attachment B to this Agreement. [NAME of PARTY] may specify, in the proposed work plan, elements of the Scope of Work that [NAME of PARTY] considers inapplicable or unnecessary to the remedial investigation for the facility. [NAME of PARTY] may propose to perform the work in phases or operable units.

2. Source Control Measures

For any unpermitted discharge or migration of contaminants to the Willamette River or sediments identified in the remedial investigation, [NAME of PARTY] shall evaluate such discharge or migration, and then develop and implement source control measures in accordance with the Scope of Work.

3. DEQ-Review

DEQ shall provide review, approvals/disapprovals, and oversight in accordance with the schedule set forth in the Scope of Work, or as soon as thereafter practicable in the event staff resources or workload prevent compliance with the

schedule. Any DEQ delay shall correspondingly extend [NAME of PARTY]'s schedule for a related deliverable or activity.

4. Additional Measures

[NAME of PARTY] may elect at any time during the term of this Agreement to undertake remedial measures other than those required under this Agreement necessary to address a release or threatened release of hazardous substances at the facility. Such other measures shall be subject to prior approval by DEQ. Prior approval shall not be required in emergencies where [NAME of PARTY] reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that [NAME of PARTY] notifies DEQ of the emergency and action immediately.

5. Dredging Activities

[NAME of PARTY] shall notify the DEQ project manager at least ninety (90) days before undertaking any dredging or other activity that might disturb sediments at or near the facility. In its notice of dredging or other activity, [NAME of PARTY] shall: (a) Evaluate the concentration of hazardous substances present in and below the affected sediments based on sampling and analyses performed in advance of the notice; (b) Demonstrate that both the activity and the subsequent management and disposal of dredged spoils will be conducted in a manner protective of human health and the environment; and (c) Evaluate the effect of the activity on the Portland Harbor Remedial Investigation and Feasibility Study. Dredging may proceed under existing permits subject to such notice and implementation of any additional dredging or management practices required by DEQ. DEQ shall also be notified of and copied on any permit application to the Oregon Division of State Lands or United States Army Corps of Engineers for dredging or other activity disturbing sediments adjacent to the [NAME OF PARTY] site.

B. Public Participation

Upon execution of this Agreement, DEQ will provide public notice of this Agreement through issuance of a press release, at a minimum to a local newspaper of general circulation, describing the measures required under this Agreement. Copies of the Agreement will be made available to the public. DEQ shall provide [NAME of PARTY] a draft of such press release and consider any comments by [NAME of PARTY] on the draft press release, before publication.

C. DEQ Access and Oversight

1. [NAME of PARTY] shall allow DEQ to enter all portions of the facility at all reasonable times for the purposes, among other things, of inspecting records relating to work under this Agreement; observing [NAME of PARTY]'s progress in implementing this Agreement; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by [NAME of PARTY]; and, using camera, sound recording, or other recording equipment for purposes relating to work under this Agreement. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before entering the facility. DEQ shall adhere to all health and safety requirements of the facility, as identified in the applicable Health and Safety Plan, including, but not limited to, requirements in portions of the Site where outside visitors must be accompanied by company personnel.

2. [NAME of PARTY] shall permit DEQ to inspect and copy all records, files, photographs, documents, and data relating to work under this Agreement, except that [NAME of PARTY] shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege. DEQ shall use its best efforts, but not be obligated, to provide reasonable notice before records inspection and copying requests.

3. Attorney-client and work product privileges may not be asserted with respect to any records required under Section II.G.1 and II.G.2 of this Agreement. [NAME of PARTY] shall identify to DEQ--by addressor-addressee, date, general subject matter, and distribution--any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by [NAME of PARTY].

D. Project Managers

1. To the extent possible, all reports, notices, and other communications required under or relating to this Agreement shall be directed to:

DEQ Project Manager:	[NAME of PARTY] Project Manager:

2. [NAME of PARTY]'s and DEQ's Project Managers shall be available and have the authority to make day-to-day decisions necessary to complete the Scope of Work under this Agreement.

E. Notice and Samples

[NAME of PARTY] shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Agreement at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon DEQ's verbal request, [NAME of PARTY] shall make available to DEQ a split or duplicate of any sample taken pursuant to this Agreement. DEQ shall make every effort to complete analysis of any split or duplicate sample on a schedule consistent with [NAME of PARTY]'s schedule for related activities. DEQ shall provide [NAME of PARTY] with copies of all analytical data from such samples as soon as practicable.

F. Quality Assurance

[NAME of PARTY] shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/ Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Agreement shall be consistent with DEQ's "Quality Assurance Policy No. 760.00". [NAME of PARTY] shall ensure that each laboratory used by [NAME of PARTY] for analysis performs such analyses in accordance with such provisions.

G. Records

1. In addition to those technical reports and documents specifically required under this Agreement, [NAME of PARTY] shall provide to DEQ within thirty (30) days of DEQ's written request copies of existing documents relating to work required under this Agreement, including QA/QC memoranda and audits, draft and final plans, final reports, task memoranda, field notes, and laboratory analytical data that have undergone data quality validation.

2. If DEQ determines that review of raw data or preliminary laboratory reports is necessary in order to ensure protection of public health, safety, and welfare and the environment, that information will be provided by [NAME of PARTY] within ten (10) days of DEQ's written request.

3. [NAME of PARTY] and DEQ shall preserve all records and documents in possession or control of [NAME of PARTY] and DEQ, respectively, or their employees, agents, or contractors that relate in any way to activities under this Agreement for at least five (5) years after termination under Section II.R. of this Agreement; provided that after such 5-year period, [NAME of PARTY] and DEQ shall provide the other sixty (60) days notice before destruction or other disposal of such records and make them available for inspection and copying.

4. [NAME of PARTY] may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Agreement. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If [NAME of PARTY] does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to [NAME of PARTY].

H. Progress Reports

During each quarter of this Agreement, [NAME of PARTY] shall deliver to DEQ on or before the fifteenth (15th) day following the end of the calendar quarter two (2) copies of a progress report containing the following items. DEQ anticipates that the progress report will not exceed 2 pages in length.

1. Actions taken under this Agreement during the previous quarter;

2. Actions scheduled to be taken in the next quarter;

3. Sampling, test results, and any other data generated by [NAME of PARTY] during the previous quarter; and

4. A description of any problems experienced during the previous quarter and the actions taken to resolve them.

I. Other Applicable Laws

Subject to ORS 415.315(3), all actions under this Agreement shall be performed in accordance with all applicable federal, state, and local laws and regulations.

J. Reimbursement of DEQ Oversight Costs

1. Prior to entry of this Agreement, DEQ shall submit to [NAME OF PARTY] an estimate of costs incurred by DEQ to date for site assessment activities and preparation and negotiation of this Agreement. Upon entry of this Agreement, DEQ shall submit to [NAME of PARTY] a statement for costs actually and reasonably, incurred by DEQ prior to entry of this Agreement for site assessment activities and preparation and negotiation of this Agreement and an estimate of future DEQ oversight costs associated with [NAME OF PARTY]'s implementation of this Agreement.

2. DEQ shall submit to [NAME of PARTY] a monthly statement of costs incurred after issuance of this Agreement by DEQ in connection with oversight of [NAME of PARTY]'s implementation of this Agreement. Each invoice will include a summary of

costs billed to date. DEQ's invoice for direct costs will include a direct labor summary showing the persons charging time, the amount of time, and the nature of the work performed.

3. DEQ or State of Oregon oversight costs payable by [NAME of PARTY] shall include both direct and indirect costs. Direct costs shall include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs shall include those general management and support costs of the DEQ and of the applicable administering division (e.g. Waste Prevention and Management Division, Environmental Cleanup Division, Northwest Region) that are allocable to DEQ oversight of this Agreement and not charged as direct, site-specific costs. Indirect costs shall be based on a percentage of direct personal services costs. DEQ oversight costs also shall include the surcharge required by ORS 465.333.

4. Within thirty (30) days of receipt of a DEQ statement, [NAME of PARTY] shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund". [NAME of PARTY] shall pay simple interest of 9% per annum on the unpaid balance of any oversight costs, which interest shall begin to accrue at the end of the 30-day payment period.

K. Force Majeure

1. If any event occurs that is beyond [NAME of PARTY]'s reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Agreement, [NAME of PARTY] shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which [NAME of PARTY] proposes to carry out such measures. [NAME of PARTY] shall confirm in writing this information within five (5) working days of the verbal notification.

2. If [NAME of PARTY] demonstrates to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the reasonable control and despite the due diligence of [NAME of PARTY], DEQ shall extend times for performance of related activities under this Agreement as appropriate. Circumstances or events beyond [NAME of PARTY]'s control might include but are not limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond [NAME of PARTY]'s reasonable control.

L. Prior Approval

Where DEQ review and approval is required for any plan or activity under this Agreement, [NAME of PARTY] shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by [NAME of PARTY]. Prior approval shall not be required in emergencies where [NAME of PARTY] reasonably believes a delay in undertaking a particular action will threaten human health, safety, or the environment; provided that [NAME of PARTY] notifies DEQ of the emergency and action immediately.

M. Dispute Resolution

In the event of disagreement between [NAME of PARTY] and DEQ regarding implementation of this Agreement, [NAME of PARTY] and DEQ shall, in the following order: 1) make a good faith effort to resolve the dispute between Project Managers; 2) if necessary, refer the dispute for resolution by the immediate supervisors of the Project Managers; [and]3) if necessary, provide each other their respective positions in writing and refer the dispute for resolution by DEQ's Administrator of the Waste Prevention and Management Division or the appropriate Region Administrator and [NAME of PARTY]'s (ADMINISTRATOR'S COUNTERPART); and 4) if necessary, refer the dispute for resolution by DEQ's Director and [NAME OF PARTY]'s (DIRECTOR'S COUNTERPART). DEQ's final decision after such dialogue shall be enforceable under this Agreement.

N. Enforcement of Agreement and Reservation of Rights

1. In the event of [NAME of PARTY]'s failure to comply with this Agreement (including any failure to reimburse oversight costs), DEQ may enforce this Agreement as an order under ORS 465.260(5) or may terminate this Agreement after thirty (30) days written notice to [NAME of PARTY].

2. In the event of DEQ's failure to provide oversight in accordance with this Agreement, [NAME of PARTY] may terminate this Agreement after thirty (30) days written notice to DEQ. Costs incurred or obligated by DEQ before the effective date of any termination of this Agreement shall be owed under the Agreement notwithstanding such termination.

3. [NAME of PARTY] does not admit any facts, legal issues, liability, or violation of law by virtue of entering this Agreement.

4. Nothing in this Agreement shall prevent [NAME of PARTY] from exercising any rights of contribution or indemnification

[NAME of PARTY] might have against any person regarding activities under this Agreement; provided [NAME of PARTY] waives any right it might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund for costs incurred under this Agreement.

5. [NAME of PARTY] agrees not to litigate, in any proceeding brought by DEQ to enforce this Agreement, any issue other than [NAME of PARTY]'s or DEQ's compliance with this Agreement.

6. In the event that the [NAME OF PARTY] s[S]ite becomes part of a federal National Priority List (NPL) site, DEQ agrees to cooperate with [NAME of PARTY] to encourage EPA to accept satisfactory and complete performance under this Agreement as fulfillment of [NAME of PARTY]'s obligation to perform the same work under a subsequently issued EPA Order or Consent Decree. If EPA does not agree that such performance under this Agreement fulfills the EPA-imposed obligations, the Agreement may be terminated at the election of DEQ or [NAME OF PARTY]. Notwithstanding the foregoing, if the Portland Harbor area becomes part of a federal NPL site, but the [NAME OF PARTY] site is not itself included in the area expressly covered by the NPL listing (e.g. the Harbor is listed but upland sites are not), this Agreement shall remain in full force and effect. If EPA does not believe that satisfactory and complete performance of this Agreement fulfills any additional EPA-imposed obligations, such obligations may be addressed by modification of this Agreement under Section Q or by separate agreement or order. [the Scope of Work may be modified as DEQ deems necessary to avoid duplicative work or inconsistent obligations and/or to satisfy EPA obligations.]

O. Hold Harmless

1. [NAME of PARTY] shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of [NAME of PARTY] or its officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by [NAME of PARTY] or its agents in carrying out activities under this Agreement.

2. To the extent permitted by Article XI, Section 7, of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless [NAME of PARTY] and its officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of

the State of Oregon or its commissions, agencies, officers, employees, contractors, or agents (except for acts approving or omissions constituting approval of any activity of [NAME of PARTY] under this Agreement). [NAME of PARTY] shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Agreement.

P. Parties Bound

This Agreement shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Agreement. No change in ownership or corporate or partnership status relating to the facility shall in any way alter [NAME of PARTY]'s obligations under this Agreement, unless otherwise approved in writing by DEQ.

Q. Modification

DEQ and [NAME of PARTY] may modify this Agreement by mutual written agreement.

R. Duration and Termination

Upon completion of work under this Agreement, [NAME of PARTY] shall submit to DEQ a written notice of completion. This Agreement shall be deemed satisfied and terminated upon payment of all oversight costs owed and upon DEQ's issuance of a letter acknowledging satisfactory completion of activities in accordance with this Agreement. Such letter shall be issued within sixty (60) days of receipt of notice of completion evidencing satisfactory completion of activities in accordance with this Agreement and payment of outstanding DEQ oversight costs, or as soon thereafter as is reasonably practicable.

[NAME of PARTY]

By: _____ Date: _____
(Name)

_____
(Title)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____ Date: _____

SCHN00152873

(Name)

_____

(Title)

KBB/GEN30415

SCHN00152874

VOLUNTARY CLEANUP PROGRAM
INTENT TO PARTICIPATE

Identification of Site

Site Name: Schnitzer Investment Corp. *

Site Address: 12005 Burgard Road in Portland, Oregon

Owner/Operator: Schnitzer Steel Industries, Inc.

Mailing Address: Attn: Tom Zelenka, Schnitzer Group
P.O. Box 10047, Portland, OR 97296-0047

Intent to Participate

The undersigned intends to negotiate in good faith a written agreement with DEQ to provide for voluntary performance of a remedial investigation under DEQ oversight. The agreement will describe the project activities of each party and will require the undersigned to reimburse DEQ for oversight costs. **

With this Intent to Participate, the undersigned does not admit or assume liability regarding the site.

Please execute this Intent to Participate in the space below and return it to:

Eric Blischke
Department of Environmental Quality
Waste Management and Cleanup Division
811 S.W. Sixth Avenue
Portland, OR 97204

By: x Tom Zelenka
(signature of authorized representative)

Name: Tom Zelenka
(print or type)

Title: Manager, Legislative/ Environmental & Public Affairs

Company: Schnitzer Steel Industries, Inc.

Date: December 22, 1999

Telephone: 503-323-2821

* Excluding that portion of the site formerly leased to Palmco Incorporated, Premier Edible Oils and C&T Quincy Foods.

** Schnitzer Investment Corp. is willing to sign a Voluntary Cleanup Agreement to perform such remedial investigation and feasibility study activities and reimburse Oregon DEQ for such costs as Oregon DEQ has a statutory right to require from it under the Environmental Cleanup Law, Oregon Revised Statutes 465.200 et seq., provided that the terms of such agreement are acceptable to it and are as favorable as the terms provided to other entities performing voluntary investigation and feasibility studies within the Portland Harbor. To the extent Schnitzer Investment Corp.'s obligations are dependent upon cooperation from its tenants, it shall use its best efforts to obtain such cooperation, but it is not a guarantor of performance by its tenants. Schnitzer Investment Corp. notes that DEQ's Strategy Recommendation contains factual inaccuracies and refers to several historical activities which have not occurred during the time period of Schnitzer Investment Corp.'s ownership of the property.

Oregon
Department of Environmental Quality

Facility Profiler

Site Info (Top, Aliases, Features, Environmental Interests, Important Links)

Last Updated: Monday, May 24, 1999 12:00:00 AM

Facility Name	SCHNITZER STEEL INDUST
Address	12005 N BURGARD RD
City, State Zip	PORTLAND, OR 97203-6422

Latitude	45deg 36min 33sec
Longitude	-122deg 46min 45sec

Aliases (Top, Site Info, Features, Environmental Interests, Important Links)

Alias	Program	Alias	Program
PREMIER EDIBLE OILS CORP.	ACSIS	SCHNITZER STEEL INDUST.	ACSIS
TIME OIL CO.	ACSIS	NW PIPE & CASING CO. - PORTLAND	ECSI
SCHNITZER STEEL INDUSTRIES	ECSI	TIME OIL CO.- NORTHWEST TERMINAL	ECSI
NORTHWEST PIPE & CASING	HWMS	NORTHWEST PIPE COMPANY	HWMS
PREMIER EDIBLE OILS CORP	HWMS	SCHNITZER STEEL PRODUCTS CO	HWMS
SCHNITZER STEEL PRODUCTS COMPANY	HWMS	TIME OIL COMPANY	HWMS
TIME OIL COMPANY N BURGRD BRANCH	HWMS		

Geo Features (Top, Site Info, Aliases, , Important Links)

Environmental Interests

County	MULTNOMAH	**City**	Portland	**OR House**	17	**OR Senate**	8
Aglands	N/A	**Forest**	N/A	**House Dist**	3	**Imperiled**	N/A
HUCS	LOWER WILLAMETTE			**Vegetation**	Urban and industrial		

Environmental Interests (Top, Site Info, Aliases, Features, Important Links)

ACSIS	ECSI	HWMS	SIS	SWMS	UST	LUST
☑	☑	☑	☐	☐	☐	☐

ACSIS (Top, Site Info, Aliases, Features, Environmental Interests, Important Links)

SIC Code	Description	Is Primary
4961	STEAM SUPPLY	Y
5171	PETROLEUM BULK TERMINALS	Y

Air Quality (ACSIS)

Location ID	1080	**Air Quality Permit**	261686	**Start Date**	5/16/83
Effective Date	11/15/94	**Review Date**	3/1/98	**Closed Date**	12/31/99
Status	OPERATING	**Type**	R	**Sub Type**	

ECSI (Top, Site Info, Aliases, Features, Environmental Interests, Important Links)

SIC Code	Description	Is Primary
3317	STEEL PIPE & TUBES	Y
3479	COATINGS, ENGRAVING, & ALLIED SERVICES, NOT ELSEWHERE CLASSIFIED	Y
5171	PETROLEUM BULK TERMINALS	Y
5093	SCRAP AND WASTE MATERIALS	Y

Environmental Cleanup (ECSI)

Location ID	1080	**Operation ID**	138	**Start Date**	8/11/88
Issue Date		**Expiration Date**		**Permit Type**	CONTAMINATED SITE
Permit SubType		**Status**	SUSPECTED RELEASE		

Environmental Cleanup (ECSI)

Location ID	1080	**Operation ID**	170	**Start Date**	3/21/88
Issue Date		**Expiration Date**		**Permit Type**	CONTAMINATED SITE
Permit SubType		**Status**	CONFIRMED RELEASE LIST		

Environmental Cleanup (ECSI)

Location ID	1080	**Operation ID**	2355	**Start Date**	5/27/99
Issue Date		**Expiration Date**		**Permit Type**	CONTAMINATED SITE
Permit SubType		**Status**	SUSPECTED RELEASE		

HWMS (Top, Site Info, Aliases, Features, Environmental Interests, Important Links)

SIC Code	Description	Is Primary
2079	SHORTENING, TABLE OILS, MARGARINE & OTHER EDIBLE FATS & OILS	Y
4226	SPECIAL WAREHOUSING & STORAGE	Y
5093	SCRAP AND WASTE MATERIALS	Y
3499	FABRICATED METAL PRODUCTS NOT ELSEWHERE CLASSIFIED	Y

Hazardous Waste (HWMS)

Location ID	1080	**Identifier**	4866551	**Start Date**	5/30/86
Effective Date	5/30/86	**Review Date**		**NFA Date**	
Type	Generator	**Sub Type**	SQG		

Hazardous Waste (HWMS)

Location ID	1080	**Identifier**	5309633	**Start Date**	1/1/81
Effective Date	1/1/81	**Review Date**		**NFA Date**	
Type	Generator	**Sub Type**	CEG		

Hazardous Waste (HWMS)

Location ID	1080	**Identifier**	6370054	**Start Date**	1/1/81
Effective Date	1/1/81	**Review Date**		**NFA Date**	
Type	Generator	**Sub Type**	LQG		

Important Links

Home Page | EPA Home Page | Oregon Online | Welcome Page | Top

Requesting Additional Information
You can send an email to request additional information on this facility. Please include as much information as possible when making a request, such as the Facility Name, Address and Location ID if possible.

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-22-02	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	/ ØT	$/ HR	TOTAL
Krian Johnson		6½	V		
Tracy Ennis		6V			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Finnished Punch List & Clean up
hauled Job Trailer Back to yard

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

Returned ladder to Hertz Rental
Returned 2" Elect pump & 50' of discharge to United Rents

6/12/02

SCHN00153027

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-21-02	Site Address	PERSONAL CODES
Job# ~~4-2-02~~ 420116	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		11½	√		
Tracy Ennis		11½	√		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100 √	

JOB DESCRIPTION / WORK PERFORMED

Finnished Backfilling around all Vaults. Cleaning up Job site Backdraging with Backhoe

Flyt came out + fired up pumps.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
Glacier 06	0855		
10 yards slurry			

ADDITIONAL INFORMATION (Job notes, etc)

Extra Poured Slurry over 10" HDPE pipe behind wall by Sheradder.

2 hrs for Brian + Tracy

6/12/02

SCHN00153028

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-20-02	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		8½			
Tracy Ennis		8			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Returend 4"			
Pump + 2"			
Pump, 300'			
Hose 4", 2			
Sucktion Hoses			
4", 2=2"			
Discharge hose			
United Rents			
Returned Test			
Air plugs to			
American			
Barricade.			
~~Sanitation~~			
~~Pipe stands~~			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Cleaning up Job site
helped Elect Sub. in Vault 2 hrs
Loaded Dump truck with Extra Sand
Rotted up blind flang on Cleanout
Retured 4" + 2" Trash pumps
at United rents. Returend Test
Plugs to American barricade

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
FNW	08085		
2 pipe stands			

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153029

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-19-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		18½	1		
Tracy Ennis		13½	1		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Backfilling Trench between wall and fence. Put a 12" 90° on in vault at west end of Job + 6" Tee, cut off 4' of HDPE pipe. Rotohammered holes and ~~[illegible]~~ All thread and fastened 6" pipe to wall.

Tracy Pumped hole dry Monday night

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

E.C. Elect Ran conduits from 120" Vault to control panel.

Hanson Delivered Ring + Covers + Set 3 Lids on Vaults

6/12/02

SCHN00153030

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schintzer	Billing Address	CONTACT
Date 11-18-02	Site Address	PERSONAL CODES
Job# 4-2-015	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	/OT	$/ HR	TOTAL
Krian Johnson		8			
Tracy Ennis		8			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Backfilling Trench along fence
Pumping water out of Vault
Pavers Paved Elect Trench
United Rents picked up steel sheets

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
Home Depot	060894		
all thread + Nuts for Vault			

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153031

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim Jikubiak
Date 11-18-02	Site Address Burgard Prior	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory LaVelle		3.0			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
TRUCK #71			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Met w/ Brian Johnson Dropped off Plate Pick, Called Steel Plates off Rent Went To Familliam Picked up Parts for Vault Piping on West end. Went To Home Depot Pick up material To Support Pipe. Unloaded Material Truck 71 & B.J's Truck

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153032

ATTN: Janet
2 Pages

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schitzer	Billing Address	CONTACT Jim St Kubiak
Date 11-17-02	Site Address Burgard Rd	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory LaVelle		2.5			

Equipment / Materials — Use current rate sheets	Qty	$/Hr	TOTAL
Truck 71	1		
Diesel Trash Pump	1		

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Water in 120" Vault was 1' below Inflient Pipe.

Primed 4" Diesel Pump Dewatered Vault

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153033

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11/16/02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Tracey Ennis			2.5		

Equipment / Materials			
Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses		
Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Pumped 120" vault dry. Rain had raised level to a few feet within the hole.

SUBCONTRACTOR'S PO #			
SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

late night & morning showers filled vault — had to use alternate entrance due to down power lines

6/12/02

SCHN00153034

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer
Date 11-15-02 Fri
Job# 4-2-016

Billing Address
Site Address
PO#

CONTACT
PERSONAL CODES
S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		8½			
Tracy Ennis		8½			

Equipment / Materials
Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Grouting Holes + Pipes in Vault, installed Pump Grinder Pipes in Vault. Dug beside HDPE Pipe and lowered it because it floted in Trench. Backfilled Elect Trench.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153035

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim Jikubiak
Date 11-15-02	Site Address Burgard Rd	PERSONAL CODES
Job# 47016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory LaVelle		2.5			
Don Alloway		10	1.5		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Met w/ Brian Johnson went over Plans to Turn over Lead.

Moved Steel Plates over Electrical Trench to safer Position

Met w/ Tim Turner to go over Punchlist Put up Fence around Manhole

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153036

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-14-02	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson	V	8½			
Tracy Ennis		8½			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Finished Hooking w/o Dipe in Small Vault, Grouting holes Backfilling, Dug Elect Trench

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153037

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-13-02 Wed	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Kevin Jansson ✓		8			
Tracy Ennis		8			
Rob Lockhart ✓		8			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Plumbed in Vertical Pipes in Vault

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
Familian	060853		

ADDITIONAL INFORMATION (Job notes, etc)

Picked up 6" Unctil Sleves + 18" Blind Flange. from familian

6/12/02

SCHN00153038

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim Zimbiak
Date 11-12-02	Site Address Burgoard Rd	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory Lalelle		6.0			
Don Alloway			3.5		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
1 load of 1" Rock			
Jumping Jack			
Back hoe			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Worked with Brian Tracy and [illegible] to set pipe in 120" Vault.
Picked up Jumping Jack from United Rental

Worked with Don to backfill and compact electrical Trench

3.5 hours on electrical Trench
2.5 hours on Vault
Jumping Jack for electrical Trench
1 load of rock for Trench (3 Total)

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153039

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date 11-12-02 Tue	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		8			
Tracy Ennis		8			

Equipment / Materials			
Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100	

JOB DESCRIPTION / WORK PERFORMED

Set Riser pipes in Vault

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153040

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dan Balbiani
Date 11-11-02	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Tracey Ennis	T		2.5		2.5

Equipment / Materials — Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses		
Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Checked and pumped vault water level.

SUBCONTRACTOR'S PO #			
SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

The large vault was 2/3 + full of water - pumped it down trench line as designated per previous shift. The vault was pumped dry via diesel pump by 10:00 AM

6/12/02

SCHN00153041

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date mon 11-11-02	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		1			
Tracy Ennis		1			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Meeting at Portland office

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153042

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT
Date Mon 11-11-02	Site Address	PERSONAL CODES
Job# 4-2-016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Brian Johnson		7			
Tracy Ennis		7			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging
Mileage	100 miles	

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL

JOB DESCRIPTION / WORK PERFORMED

Cut rest of Ductil iron to Lenght
Ran @ 250' of 4" Hose to Clean out
in HDPE pipe to pump into
Returned Air Compressor to united Rents
and picked up 250' of 4" Hose.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
United Rents			
Return, Air Comp.			

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153043

ENVIRONMENTAL SERVICE, INC.
EMPLOYEE TIME SHEET

EMPLOYEE NUMBER _____ DIVISION: ENVIC EMPLOYEE NAME Stumbaugh WEEK ENDING: 11/10/02 PAGE 1 OF _____

DIRECT LABOR

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME/ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	TRCD PYCD	LBCD	SCA	PW SCA	PW DBA	REG	OT/SS	DT	TRTM	TOTAL
2	3		4		1		Schnitzer	42016										
						1	Betty -	42017										
							SUBTOTAL FROM PAGE 2											
							TOTAL DIRECT LABOR HOURS											

INDIRECT LABOR Admin

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME/ ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	PYCD	LBCD	EXCEPTION HRS	REG	OT/SS	DT	MISC	TOTAL
2	4	4					Tosco Bldg - Portland									
		1		2			Tosco Bldg - Everett									
3	8		2	3			Peter / Shell Everett	845484			Perdiem					
		4	3	3			[redacted] Admin Invoicing									
							PAID VACATION									
5	12	9	5	8			HOLIDAY PAY									
							PAID AUTHORIZED									
			39				SUBTOTAL FROM PAGE 2									
							TOTAL INDIRECT LABOR HOURS									

TOTAL LABOR

12	15	9	9	8	1	1	TOTAL ALL HOURS									

55 55

EMPLOYEE SIGNATURE DATE CERTIFIED CORRECT BY SUPERVISOR DATE OVERTIME APPROVED DATE

DAC Check

SCHN00153044

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dan Balbiani
Date 11-7-02	Site Address 12205 Burgard	PERSONAL CODES
Job# 47206	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory LaVelle		6.5			
Don Alloway		6.5			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
Truck 27			
Excavator #80			
Backhoe 57			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Backfilled west end around vaults
set small manhole lid
set lids oil/water seperator
set donut on 96" vault

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153045

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dave Balbiani
Date 11-8-02	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory Lavelle		7.0			
Dan Alloway		7.0			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
Truck 27			
Excavator 25			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Backfilled west end around Vaults

Hanson delivered Lids

installed Kornseal on first 96" manhole

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153046

FAX# (360) 423-2272 PNE CONSTRUCTION DAILY JOB REPORT JOB# 4-2-016_____ PAGE

JOB START TIME: END TIME: JOB SUPT.:Miles JOB SITE: Snithzers Steel

Day: Fri Date: 11-8-02

		Name	Name	Name	Name
Total Labor Hrs This Report>>>>>>		Brian Johnson	Tracy Ennis		
Total Labor Hrs To Date >>>>>>>>>>>>>>>>					
TASK DESCRIPTION	C/O#	CODE	Time	Time	Time	Time
Project Mgmt/Co. Meetings/ Shop Time		01301				
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1801				
Site Utilities - Storm/Sanitary/Water		02501	8½	9		
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
TOTAL DAILY HOURS						
PER DIEM $ AMOUNT						
Mileage			100			

Work Performed: Pump out Vault Measured Pipe Length and cut Ducted

Change Order Info:

Subcontractor's On-site	
PO#	NAME/DESCRIPTION

Material Receipt/Used-Suppliers or Pl		
PO #	Material	Qty.

PNE	Equipment	Hrs

Rental	Equipment	
PO#	DESCRIPTION	HRS

PO#	Used on Change Order	Qty.

SCHN00153047

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dan Balbiani
Date 4-7-02	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory Labelle		8.0	6.0		
Don Alloway		8.0			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
Truck 27			
Excavator PC 200			
Backhoe 57			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Bedded 720' of conveyance trench w/ Pgravel (Change order) 5.0 hrs
Secured trench Plates
Backhoe out of service worked to trouble shoot

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153048

FAX# (360) 423-2272 PNE CONSTRUCTION DAILY JOB REPORT JOB# 4-2-016_____ PAGE

JOB START TIME: END TIME: JOB SUPT.:Miles JOB SITE: Snithzers Steel

Day: Thur Date: 11-7-02

			Name	Name	Name	Name
Total Labor Hrs This Report>>>>>>			Brian	Tracy		
Total Labor Hrs To Date >>>>>>>>>>>>>>>>			Johnson	Ennis		
TASK DESCRIPTION	C/O#	CODE	Time	Time	Time	Time
Project Mgmt/Co. Meetings/ Shop Time		01301				
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1801				
Site Utilities - Storm/Sanitary/Water		02501	12	12		
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
TOTAL DAILY HOURS						
PER DIEM $ AMOUNT						
Mileage			100			

Subcontractor's On-site

PO#	NAME/DESCRIPTION

Material Receipt/Used-Suppliers or Pl

PO #	Material	Qty.
260852	Mayson's	1
	rebar cutter	
	Bit	

PNE	Equipment	Hrs

Rental	Equipment	
PO#	DESCRIPTION	HRS

Work Performed: Pumped out Vault plugged off Pipes Drilling holes in base and epoxyed all three and set all three bases.

PO#	Used on Change Order	Qty.

Change Order Info:

SCHN00153049

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dan Bahlani
Date 11-6-02	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Gary LaVelle		8.0	3.5		
Don Alloway		8.0	3.5		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
Truck 27			
Excavator PC200			
Backhoe 57			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Excavated to Push Pipe under Tracks
Electrical Trench.

Worked w/ Electrician to install
and Splice into Conduit

Removed Fusion Machine

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153050

FAX# (360) 423-2272

PNE CONSTRUCTION DAILY JOB REPORT

JOB# 4-2-066 PAGE 1

JOB START TIME: END TIME: JOB SUPT: Miles JOB SITE: Schnitzer

Day: Wed Date: 11-6-02

			Name	Name	Name	Name
Total Labor Hrs This Report>>>>>>			Brian	Tracy		
Total Labor Hrs To Date >>>>>>>>>>			Johnson	Ennis		
TASK DESCRIPTION	C/O#	CODE	Time	Time	Time	Time
Project Mgmt/Co. Meetings/ Shop Time		01301				
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1801				
Site Utilities - Storm/Sanitary/Water		02501	10	10		
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
Flight Pay						
TOTAL DAILY HOURS						
PER DIEM $ AMOUNT						
Mileage			100			

Subcontractor's On-site

PO#	NAME/DESCRIPTION

Material Used-Suppliers or PNE

PO #	Material	Qty.

PNE	Equipment	Hrs

Rental PO#	Equipment DESCRIPTION	HRS
056951	2" Trash pump	8
	20' Discharg	8
	20' Suction	8

PO#	Used on Change Order	Qty.

Work Performed: Pumped out Vault. Plugged off pipes
Rotorhammering holes for pump Basco.
hit rebar. have to get rebar cutting bit.

Change Order Info:

SCHN00153051

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Dan Balbiani
Date 11-5-02	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cory LaVelle		8.0	3.0	✓	
Tracy Ennis	OL		3.0	✓	
Don Alvarez		8.0	3.0	✓	

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Easy Truck 71			
Truck 27			
Excavator PC200			
Backhoe 57			
Fusion Machine			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Hung Pipe onto Brackets
Fed Pipe into first vault (HDPE)
Fused 200' of HDPE for system outfall
5-5 outfall Pipe

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153052

FAX# (360) 423-2272 PNE CONSTRUCTION DAILY JOB REPORT JOB# 2-2-4-2-016 Page 2

JOB START TIME: END TIME: JOB SUPT.: Miles JOB SITE: Smithzer

Day: Tue. Date: 11-5-02

TASK DESCRIPTION	C/O#	CODE	Name: Brian Johnson Time	Name: Tracy Ennis Time	Name Time	Name Time
Project Mgmt/Co. Meetings/ Shop Time		01301				
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1801				
Site Utilities - Storm/Sanitary/Water		02501	9	8		
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
TOTAL DAILY HOURS			9	8		
PER DIEM $ AMOUNT						
Mileage			100			

Subcontractor's On-site

PO#	NAME/DESCRIPTION

Material Receipt/Used-Suppliers or PNE

PO #	Material	Qty.

PNE	Equipment	Hrs

Rental PO#	Equipment DESCRIPTION	HRS

On Site	Inspections	P / F

Work Performed: Bolting up fittings + Layout for Vault
and set Lid to Vault
Hansen Delivered Vault Lid

Change Order Info:

SCHN00153053

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Tim Turner
Date 11-4-02 Monday	Site Address 12005 Burgard	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Cary LaVelle		8.0	1.0	✓	
Don Alloway		8.0	1.0	✓	
Tracy Ennis			1.0	✓	

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
Truck 71			
Truck 27			
Excavator R200			
Backhoe 57			
Fuse machine			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Welded Brackets, Painted Brackets
installed rubber on Brackets

C.R. Picked up equipment for
Vault Plumbing

9.0 hrs Don Alloway Change order
2.0 " Cary LaVelle " "
1.0 Tracy Ennis " "
Bracket install

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153054

FAX# (360) 423-2272

PNE CONSTRUCTION DAILY JOB REPORT

JOB# [redacted] - 4-2-016

JOB START TIME: END TIME: JOB SUPT.: Miles JOB SITE: Snithzer

Day: Mon Date: 11-4-02

TASK DESCRIPTION	C/O#	CODE	Name: Brian Johnson	Name: Tracy Ennis	Name	Name
			Time	Time	Time	Time
Project Mgmt/Co. Meetings/ Shop Time		01301				
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1801				
Site Utilities - Storm/Sanitary/Water		02501	8	8		
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
TOTAL DAILY HOURS						
PER DIEM $ AMOUNT						
Mileage			100			

Work Performed: Bolting up fittings

Subcontractor's On-site

PO#	NAME/DESCRIPTION

Material Receipt/Used-Suppliers or PNE

PO #	Material	Qty.

PNE	Equipment	Hrs

Rental PO#	Equipment DESCRIPTION	HRS

On Site	Inspections	P / F

Change Order Info:

SCHN00153055

T-774 P.001/001 F-850

ENVIRONMENTAL SERVICE, INC.
EMPLOYEE TIME SHEET

EMPOLYEE NUMBER _____ DIVISION: Enviro EMPLOYEE NAME: Stumbaugh WEEK ENDING: 11/3/02 1 PAGE 1 OF 1

DIRECT LABOR

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME/ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	TRCD PYCD	LBCD	SCA	PW SCA	PW DBA	REG	OT/SS	DT	TRTM	TOTAL
4	8		5	8			Schnitzer (Fabricated Y) Pick up	42016										
		4	2				Bently (Set for trip up Called off)	42017										
			1				Canby Shell order Equipment	42013										
							SUBTOTAL FROM PAGE 2											
4	8	4	8	8			TOTAL DIRECT LABOR HOURS											

INDIRECT LABOR

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME / ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	PYCD	LBCD	EXCEPTION HRS	REG	OT/SS	DT	MISC	TOTAL
2					4		Shop Safety Meeting Steven Software/Training For PLC									
4		3.5		2		2	Marketing Bid Prep Rosen-Mansfield									
	3	2	3				General Admin / Personnel Interviewing									
							PAID SICK									
							PAID VACATION									
							HOLIDAY PAY									
							PAID AUTHORIZED									
							SUBTOTAL FROM PAGE 2									
6	3	5.5	3	2	4	2	TOTAL INDIRECT LABOR HOURS									

TOTAL LABOR

10	11	9.5	11	10	4	2	TOTAL ALL HOURS									

EMPLOYEE SIGNATURE _____ DATE _____ CERTIFIED CORRECT BY SUPERVISOR _____ DATE _____ OVERTIME APPROVED _____ DATE _____

57.5

SCHN00153056

ENVIRONMENT. ERVICE, INC.
EMPLOYEE TIME SHEET

EMPOLYEE NUMBER _____ DIVISION: Enviro EMPLOYEE NAME: Miles Stumbaugh WEEK ENDING: _____ - 1 PAGE 1 OF 1

DIRECT LABOR

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME/ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	Mon	Tue		PW SCA	PW DBA	REG	OT/SS	DT	TRTM	TOTAL
12	4	2.5					Bently	42017	15	30								
			14	10			Schnitzer Steel	42016										
	3						Canby Shell	42013										
							SUBTOTAL FROM PAGE 2											
							TOTAL DIRECT LABOR HOURS											

INDIRECT LABOR

MON	TUE	WED	THU	FRI	SAT	SUN	PROJECT NAME / ACTIVITY DESCRIPTION (MANDATORY)	PROJECT NO.	FYCO	LBCO	EXCEPTION HRS	REG	OT/SS	DT	MISC	TOTAL
	3	4					3 Problems Bid Schnitzer Pipe refining									
		3		3			Geo Engineers Bid ReBid									
					8	4	Project Bid Tosco									
							PAID SICK									
							PAID VACATION									
							HOLIDAY PAY									
							PAID AUTHORIZED									
							SUBTOTAL FROM PAGE 2									
							TOTAL INDIRECT LABOR HOURS									

TOTAL LABOR

12	10	9.5	14	13	8	4	TOTAL ALL HOURS									

70.5

EMPLOYEE SIGNATURE DATE CERTIFIED CORRECT BY SUPERVISOR DATE OVERTIME APPROVED DATE

☐ O/C Check ☐ Entered ☐ Verified

SCHN00153057

10/28/2002 14:22 503-247-1002 PNE CORP PDX PAGE 01/01

FAX# (360) 423-2272 PNE CONSTRUCTION DAILY JOB REPORT JOB# ~~2-2-~~ 4-2-016 PAGE I

JOB START TIME: 10:30 END TIME: 12:30 JOB SUPT.: Miles JOB SITE: Shop / Snithzer

Day: 11-1 Fri Date:

TASK DESCRIPTION	C/O#	CODE	Name: Brian Johnson Time	Name Time	Name Time	Name Time
Total Labor Hrs This Report>>>>>>						
Total Labor Hrs To Date >>>>>>>>>>>>>>>						
Project Mgmt/Co. Meetings/ Shop Time		01301	2 hr			
Job Site Supervision/Paperwork		01351				
Site Decommision / Remediation		1410				
Site Mob and Demob		1701				
General Construction		1601				
Site Utilities - Storm/Sanitary/Water		02501				
Site Concrete		3011				
Petroleum Concrete-Canopy Footing/Deadman		3301				
Site Carpentry		6101				
Site Electrical, Telephone,Natrual Gas		16101				
Petroleum Excavation / Backfill / Install-Tanks		11501				
Petroleum Excavation / Backfill / Install-Islands		11601				
TOTAL DAILY HOURS			2 hr			
PER DIEM $ AMOUNT						
Mileage						

Subcontractor's On-site

PO#	NAME/DESCRIPTION

Material Receipt/Used-Suppliers or PNE

PO #	Material	Qty.

PNE	Equipment	Hrs

Rental Equipment

PO#	DESCRIPTION	HRS

PO#	Used on Change Order	Qty.

Work Performed:

Loaded Truck with Tools

Change Order Info:

SCHN00153058

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 11-1-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Holloway		8	1		
Corey LaVette		8	1		
Tracby Ennis		8	1		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 excAV		7	
Backhoe 57		6	
Pickup 27		9	
Pickup 71		9	
Fuse Machine		9	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

extra- welded 27 Brackets on metal retaining wall to hold up pipe.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
United Rentals			
welder			
P.O. 057485			

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153059

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim Jakubiak
Date 10-31-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT.	$/ HR	TOTAL
Don Alloway		8	1		
Corey LaVelle		8	1		
Tracey Ennis		8	1		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 excav		7	
Backhoe(57)		4	
Pickup(27)		8	
Pickup(71)		8	
Fuse machine		9	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

extra- Welded up a Clean-out By the Beginning of Concrete Retainning wall, then cleaned out Behind Retainning of Rocks and metal so I could pull my pipe through

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc)

6/12/02

SCHN00153060

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-30-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Allocing		T	S		
Corey LAVelle		T	S		
Tracey Ennis		T	S		

Equipment / Materials — Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL
Peace excav		4	
Backhoe (57)		6	
Pickup (27)		5	
Pickup (911)		5	
Fuse machine (P)		7	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Fused short peice and a 90° ELBOW and aprox 300' of Straight Run

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
accurate Concrete Cutting P.O. 57484			

ADDITIONAL INFORMATION (Job notes, etc.)

Core Drilled extra- 1- 16" hole Redone and 4- 3" holes into 120" Vault. (For Electric)

6/12/02

SCHN00153061

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim Jakubiak
Date 10-29-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Alloway		8	2		
Corey LaVelle		8	2		
Tracey Ennis		8	2		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 excAv		6	
Backhoe (57)		4	
Pick Up (27)		10	
Pick Up (71)		11	
Fuse Machine (R)		8	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Fused Together approx. 360' then went to west end and finished 12" By pass pipe and Back Filled

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153062

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzers	Billing Address	CONTACT Jim JAKUBIAK
Date 10-28-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Alloway	T	8	3		
Corey LAVELLE	T	8	[illegible]		
Tracky Ennis	T	8	1.5		

Equipment / Materials — Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL
Pacon excav		4	
Backhoe (57)		7	
Pickup (27)		11	
Pickup (41)		11	
Fusing Machine		1	
Vibro Plate			

Perdiem / Lodging expenses		
Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED
Fused aprox 500' of 10" HDP. went to safety meeting at Longview and Stop

SUBCONTRACTOR'S PO #			
SUB Name	PO #	Cost	Total
Ross Island Rock	5743		

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153063

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-28-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Alloway		2			
Corey LAVelle		2			
Tracey Ennis		2			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
BacKHoe (57)		2	
Pickup (27)		2	
Pickup (71)		2	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

extra- dug Behind Retainning aprox. 220 Feet at 30" Deep that was supposed to Be above ground and Tim wanted us to Bury it.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153064

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzers	Billing Address	CONTACT Jim JAKuRiak
Date 10-25-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Miles Stumbaugh					
Don Albury		6			
Tracey Ennis		8			
Corey Ailelle		8			

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 excav.		2	
Backhoe 27		2	
Pickup 57		6	
Vibro Plate		1	

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Started Fusing Pipe Together and routed around Vault Holes

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153065

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-24-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Miles Stumbaugh	S				
Don Alloway	T	8	5		
Corey LAVelle	T	8	5		
Tracey Ennis	T	8	5		

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 EXCAV		7	
Back Hoe (57)		6	
Pickup (27)		85	
Vibre Plate			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Backfilled and leveled out dirt. When shredder shut down went down to west end hooked up pipes between vaults and backfilled.

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total
accurate Concrete Cutting			
inv# 13477			
P.O. #57482			

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153066

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-23-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Don Alloway		8.	.5		
Tracey Ennis		8			

Equipment / Materials: Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL
PC200 EX AV		7	
BackHoe # 57		1	
Pickup # 27		8.5T	
Vibre Plate		2	

Perdiem / Lodging expenses		
Employee	Perdiem	Lodging

SUBCONTRACTOR'S PO #			
SUB Name	PO #	Cost	Total

JOB DESCRIPTION / WORK PERFORMED

BackFilled on East end OF JOB then went to west end end after Shredder Shut down and started to Clean-up.

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153067

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-22-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Miles Stumbaugh	S				
Dan Alloway	T	8	1.5		
Tracey Ennis	T	8	1.5		

Equipment / Materials — Use current rate sheets			
DESCRIPTION	Qty	$/Hr	TOTAL
PC200 EXCAV		9	
BACKHOE 57		2	
PICKUP 27			

Perdiem / Lodging expenses		
Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Started at 11:00 BackFilled to 12:00. then went down to West end and Raised Pipe 4" (out Flow pipe). then came Back to East Side and Back Filled to 4:00 when Shredder was down then went to West end Fixed 4" line that Broke Because of Vibration of machine and Stared BackFilling around Vaults

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

Core Driller Showed up at 4:00 to Start Drilling Holes

6/12/02

SCHN00153068

ENVIRONMENTAL SERVICES DIVISION

1081 COLUMBIA BLVD.
LONGVIEW, WASHINGTON 98632

Phone 360 423 6316
Fax 360 423 3409

Customer Schnitzer	Billing Address	CONTACT Jim JAKUBIAK
Date 10-21-02	Site Address	PERSONAL CODES
Job# 42016	PO#	S=Superintendent T=Technician SS= Site Safety

Employee	CODE	REG	OT	$/ HR	TOTAL
Miles Stumbaugh	S				
Don Alloway	T	8.5			
Tracey Ennis	T				

Equipment / Materials

Use current rate sheets

DESCRIPTION	Qty	$/Hr	TOTAL
PC200 EXCAV		8	
BACKHOE 57			
PICKUP 27			

Perdiem / Lodging expenses

Employee	Perdiem	Lodging

JOB DESCRIPTION / WORK PERFORMED

Backfilling around vaults and compacting in lifts

SUBCONTRACTOR'S PO #

SUB Name	PO #	Cost	Total

ADDITIONAL INFORMATION (Job notes, etc.)

6/12/02

SCHN00153069

Statewide Rent-A-Fence of Oregon, Inc
PO Box 5787
Aloha, OR 97006
503) 221-0238

Invoice

Number: 972
Date: 26-Nov-2002
P.O. Number:

BILL TO	JOB SITE
Pacific Northern Environmental 55 International Way Longview, WA 98632	Schnitzer Steel 12005 N Burgard Rd Portland, OR

P059230

11-27 Verified on the w/miles phone we do need to pay

From =>	To	Unit/Service Type	Quantity	Price	Per	Tax?	Extension
25-Nov-2002 =>	25-Nov-2002	Panels-6x10 Construction Damaged panels	2	$45.00 LF		☑	$90.00
25-Nov-2002 =>	25-Nov-2002	Panels-6x10 Construction Destroyed panel	1	$85.00 LF		☑	$85.00

Tax Rate	Description
0	Oregon

Subtotal Taxable Rental:	$175.00
Rental Tax:	$0.00
Please Pay:	**$175.00**

Rental Period:

Payment Terms: Net 10

JOB # 42016
DEPT.
G.L. CODE
PAYDATE

Effective 7/1/02 - Monthly Re-Rental is $.30 LF
Terms of payment are Net 10 days or as otherwise indicated in your Rental Contract. Delinquent accounts shall be subject to a 1.5% per month late charge

SCHN00153070

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
C067-7120293		
PAY THIS AMOUNT	INVOICE DATE	PAGE
76.98-	11/20/02	1

REF. 6980525

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
101101 BURGARD TEERMINAL #4
PORTLAND, OR 97296

on file w/ # 6980525

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	11/19/02	CREDIT	Prepaid	060482	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1-	1-		12X10 SDR 17 HDPE MOLDED REDUCER	96.22000	EA	.80	76.98-

42016

CODE

DATE

THER CHARGES

SUB-TOTAL	76.98-
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	76.98-

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

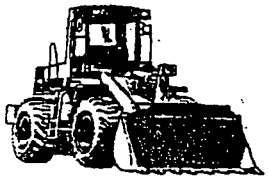
FAM001 FAM00101.RTP 00001515 / 00002451

SCHN00153071

INVOICE

ORIGINAL INVOICE

11/26/02



THANK YOU FOR RENTING FROM HERTZ!

CUSTOMER NUMBER: 0549006 RES/QUOTE NUMBER: 6124274 DOCUMENT NUMBER: 4033653-001

on file w/ #210

PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

PO NUMBER:	057475 SNITZER STEEL
JOB NUMBER:	1 - N COLUMBIA WAY &
ORDERED BY:	ALLOWAY, DON
SIGNED BY:	UNABLE TO OBTAIN
DELIVERED BY:	HERTZ
RENTAL START DATE:	11/05/02 15:35
CLOSED BY:	JOHN L. BLAKE
SALES REP:	BRIAN LYONS

SHIPPING ADDRESS:
N COLUMBIA WAY & FESSENDEN
N FESSENDEN & N COLUMBIA WAY
PORTLAND, OR 97213

HERTZ LOCATION: 724
4939 N.E. COLUMBIA BLVD.
PORTLAND, OR 97218
503-287-5789

RENTAL DAYS:	14
INVOICE FROM DATE:	11/05/02 15:36
INVOICE THRU DATE:	11/22/02 9:19

	ORIGINAL	ADJ	TOTAL
RENTAL CHARGES	190.00		190.00
TOTAL CHARGES	190.00		190.00
NET DUE			190.00

PAYMENT TERMS ARE NET 10 DAYS

Customer is responsible for FUEL, FLATS, DAMAGE and CLEANUP FEES.

LATE CHARGES MAY APPLY
FOR CUSTOMER SERVICE AND BILLING INQUIRIES CALL 1-800-456-6492

DIRECT PAYMENT TO:
HERTZ EQUIPMENT RENTAL
P.O. BOX 26390
OKLAHOMA CITY, OK 73126-0390

RECEIVED DEC 2 2002 By

PAID

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	RERENT MISC CATEGORY RR9750001	25.00	25.00	70.00	190.00	190.00

Ladders

THIS A 28' EXTENSION LADDER
HERTZ PO#1176113

420146

11/22/02 001 HERTZ CHARGE 190.00

L CODE

Detach and send bottom portion with payment.

PACIFIC NORTHERN ENVIRONM
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

11/26/02

Customer Number: 0549006
Document Number: 4033653-001

PLEASE PAY THIS AMOUNT: 190.00

SCHN00153072

United Rentals

4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

4 WEEK BILLING INVOICE

** COPY **

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer..... 67308
Invoice #... 29524285-003
Invoice date 11/21/02
Date out.... 11/04/02 10:06 AM
Billed thru. 12/02/02

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 060483 /on file
Ordered By.. CORY
Written by.. CYCLE BILL
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	PUMP 2 IN SUBMERSIBLE 110 V *	27.00	27.00	79.00	237.00	237.00
	385139 Make: MULTI QUIP Model: ST-2005CUL Ser #: 393837					
2	DISCHARGE HOSE 2 IN X 50 FT	11.00	11.00	21.00	42.00	84.00

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV ENVIRONMENTAL CHARGE	MCI	EA	1.130	1.13

Sub-total: 322.13
Total: 322.13

BILLED FOR FOUR WEEKS 11/04/02 THRU 12/02/02 10:06 AM
RENTAL PROTECTION DECLINED

PAID

42016

COPY

RECEIVED DEC 3 2002

*ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE.* Upon accepting the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to 14% of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occurring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* (_____) *Customer Declines* (_____)

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in the rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery; (2) Optional Rental Protection Plan charge is _____ of the total rental charge for covered equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays. (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms. (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153073

Locate Down Under Inc.
15725 SE Hnawood Ln.
Milwaukie, Oregon 97267

Invoice

DATE	INVOICE #
11/24/'02	3146

BILL TO:

Pacfic Northern Env.
7000 SW Hampton St.
Portland, Oregon 97223

P.O. NUMBER	TERMS	PROJECT
60484		

QUANTITY	DESCRIPTION	RATE	AMOUNT
1.5	under ground locating	55.00	82.50

DEC 9 2002

42016

L CODE

e appreciate your prompt payment.

TOTAL $82.50

SCHN00153074

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER		
011-7051984		
PAY THIS AMOUNT	INVOICE DATE	PAGE
178.35	11/11/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00001218 7 1218

SHIP TO
CUSTOMER PICKUP

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/08/02	Pickup	Prepaid	060491	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1	1		6 PVC GASKETED SEWER TEE GXG	21.89000	EA	30	15.32
2	1	1		FNW 32OZ PIPE GASKET LUBE	6.23000	EA	30	4.36
3	1	1		6 PVC HXFPT ADAPT SOLVENT	14.29000	EA	30	10.00
4	1	1		6 PVC MPT PLUG SOLVENT	9.24000	EA	30	6.47
	1	1		12 PVC GSKTD SWR 1/4 BEND GXG	175.71000	EA	30	123.00
6	1	1		2X1000 MAGNETIC TAPE-MARKED WATER	25.60000	EA	25	19.20

RECEIVED NOV 18 2002

42016

PAID

OTHER CHARGES

SUB-TOTAL	178.35
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	178.35

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM001 FAM00101.RTP 00001218 / 00001925

SCHN00153075

ROSS ISLAND SAND & GRAVEL CO.

CCB #64305
P.O. BOX 82249
PORTLAND, OREGON 97282-0249
PHONE: (503) 239-5504
FAX: (503) 235-1350

SOLD TO

PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98626

DELIVERED TO

SCHNITZER STEEL
12005 N. BURGARD

Don A. will call in a PO for 2 trucks of pea Rock for mining

ACCT. NO.	TERMS	P.O. NUMBER	DATE	INVOICE NO.
02418	Net 30 Days	#057461 057488	11/08/02	475834

PROD. CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
12200	1" - 0 Crushed Rock	27.39	TON	10.00	273.90
	118129-1 118132-1				
	2 Tickets Billed				

42016

RECEIVED NOV - 8 2002

By

TERMS AND CONDITIONS

. Full payment is due within 30 days of purchase unless otherwise stated above. Payments will be applied to oldest outstanding charges first, unless purchaser specifies differently.

. Delinquent accounts will bear a service charge of **1½%** per month, which is at the **ANNUAL PERCENTAGE RATE** of **18%**, or at the highest rate permitted by law whichever is lower.

. In event an account is not paid when due, and it is necessary for Ross Island to refer the account to an attorney for collection, customer agrees to pay all costs of collection, including attorneys fees. In the event a suit or action is instituted, the prevailing party shall recover attorneys fees at trial and upon any appeal or appeals.

. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE; THERE ARE NO WARRANTIES BEYOND THE DESCRIPTION ON THE FACE OF EACH INVOICE.

In the event of any express warranty, Ross Island's liability shall be limited to the replacement of any defective material, or to the return of the purchase price, whichever it shall choose. Ross Island shall not be liable for injuries to persons or property, whether arising in tort, contract or otherwise. IN NO EVENT SHALL IT BE LIABLE FOR CONSEQUENTIAL DAMAGES OF ANY KIND, OR FOR ANY COMMERCIAL LOSS.

SALES TAX	
INVOICE TOTAL ▶	273.90

CUSTOMER ORIGINAL

SCHN00153076

ROSS ISLAND SAND & GRAVEL CO.

CCB #64305
P.O. Box 82249
PORTLAND, OREGON 97282-0249
PHONE: (503) 239-5504
FAX: (503) 235-1350

SOLD TO

PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98626

DELIVERED TO

SCHNITZER STEEL
12005 N. BURGARD

Verbal per Doug

ACCT. NO.	TERMS	P.O. NUMBER	DATE	INVOICE NO.
02418	Net 30 Days	#057461 on file	11/12/02	477103

OD. CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
12200	1" - 0 Crushed Rock	14.34	TON	10.00	143.40
	118330-1				
	1 Tickets Billed				
	42016				

RECEIVED
NOV 15 2002
By

TERMS AND CONDITIONS

Full payment is due within 30 days of purchase unless otherwise stated above. Payments will be applied to oldest outstanding charges first, unless purchaser specifies differently.

Delinquent accounts will bear a service charge of 1½% per month, which is at the **ANNUAL PERCENTAGE RATE** of **18%**, or at the highest rate permitted by law whichever is lower.

In the event an account is not paid when due, and it is necessary for Ross Island to refer the account to an attorney for collection, customer agrees to pay all costs of collection, including attorneys fees. In the event a suit or action is instituted, the prevailing party shall recover attorneys fees at trial and upon any appeal or appeals.

SALES TAX	
INVOICE TOTAL	143.40

THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE; THERE ARE NO WARRANTIES BEYOND THE DESCRIPTION ON THE FACE OF EACH INVOICE.

In the event of any express warranty, Ross Island's liability shall be limited to the replacement of any defective material, or to the return of the purchase price, whichever it shall choose. Ross Island shall not be liable for injuries to persons or property, whether arising in tort, contract or otherwise. IN NO EVENT SHALL IT BE LIABLE FOR CONSEQUENTIAL DAMAGES OF ANY KIND, OR FOR ANY COMMERCIAL LOSS.

CUSTOMER ORIGINAL

SCHN00153077

United Rentals

4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

RENTAL RETURN INVOICE

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29699367-001
Invoice date 11/13/02
Date out.... 11/12/02 12:07 PM
Date in..... 11/13/02 7:24 AM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 060493
Ordered By.. CORY
Written by.. UR263KMA
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	RAMMER LG 30-3600 LBS/BLOWS *	55.00	65.00	215.00	545.00	65.00
	465701 Make: MULTI QUIP Model: MT65H Ser #: K3394					

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV ENVIRONMENTAL CHARGE	MCI	EA	.310	.31

Sub-total: 65.31
Total: 65.31

RENTAL PROTECTION DECLINED

RECEIVED

42016

*ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon acceptance of the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to _____ of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occuring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* (_____) *Customer Declines* (_____)

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery. (2) Optional Rental Protection Plan charge is _____ of the total rental charge for covered equipment. (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays. (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms. (5) Customer assumes all risk and is responsible for all damages and other [illegible], including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153078

REMIT TO:

WESTERN
POWER & EQUIPMENT
6407B NE 117th Ave
Vancouver, WA 98662-5559

Page 2

INVOICE

WESTERN
POWER & EQUIPMENT
Location: West Portland OR
1-800-638-9941

INVOICE NO.:	A23682
CUSTOMER NO.:	156540
DATE:	11/14/02
AMOUNT DUE:	SEE PAGE 1
TERMS:	NET 30

SHIP TO:

PACIFIC NORTHERN ENVIRON
MUST HAVE PO#
1081 COLUMBIA BLVD
LONGVIEW WA 98632-1024

DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

BR	TRK	MAKE	MODEL	SERIAL	EQUIPMENT	METER	SLS	CUSTOMER PO
01		IW	580SK	JJG0163616	PNE #57	4,303	726	60324

ORDER	SHIP	B/O	DESCRIPTION		EACH	AMOUNT
1	1		IC J931607	GASKET W J914389	.88	.88
1	1		IC JR916523	REMAN-INJECTION P JC916523	668.06	668.06
			TOTAL PARTS			714.89
	42		MILEAGE-O		1.40	58.80
	6.50		FIELD LABOR		70.00	455.00
			ENVIRONMENTAL CHARGE			9.10
			SHOP SUPPLIES-O			22.75
			WASHINGTON STATE TAX			81.94
			COWLITZ COUNTY TAX - 0804			13.87

YOU CAN PAY YOUR BILL BY CREDIT CARD ALSO
PLEASE CONTACT YOUR LOCAL STORE FOR DETAILS

42016

PAID

CUSTOMER JOBSITE

Total 1,356.35

69

PARTS & SERVICE: NET 30 DAYS • RENTALS: PAYMENT IN ADVANCE • MACHINERY SALES: IN FULL UPON DELIVERY
These are standard terms for all established Western Power & Equipment credit accounts in good standing

SCHN00153079

United Rentals

4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

PARTIAL RETURN
** COPY **

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #.... 29524285-002
Invoice date 11/11/02
Date out..... 11/04/02 10:06 AM
Date in..... 11/11/02 10:07 AM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 060483 on file
Ordered By.. CORY
Written by.. UR268JF
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	COMPRESSOR 15 CFM GAS *	32.00	42.00	125.00	375.00	125.00
	400-2-26 Make: EMGLO Model: K5WGA-8P Ser #: 32795200					
1	AIR HOSE 3/8 IN X 50 FT	5.00	5.00	11.00	37.00	11.00

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV	MCI	EA	.600	.60
	ENVIRONMENTAL CHARGE				

Sub-total: 136.60
Total: 136.60

RENTAL PROTECTION DECLINED

PAID

RECEIVED
NOV 13 2002
By

42016

COPY

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OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon accepting the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to _____ of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occuring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* (_____) *Customer Declines* (_____)

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X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

United Rentals

UNITED RENTALS
4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

WORK ORDER INVOICE

Copy

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer #.. 67308
Invoice#.... 29666170-001
Date..... 11/11/02
Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 060489
Authorized.. PETE UHLER
Received on. 11/11/02
Finished on. 11/11/02
Last con/cus /
Written by.. UR268PU

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

EQUIP #	Make	Model	Serial #	Description
PNE57	CASE	580L	NA	BACKHOE

Work To Be Done
CUSTOMER CALLED TO HAVE MECHANIC COME OUT TO JOB S
IGHT TO INSPECT WHY THERE MACHINE WOULD NOT START.
CALLED IN BY CORY-849-6774

WORK PERFORMED:
REPALCED MAIN FILTER AND CLEANED PICK UP SCREEN. FOUND A LOT OF CONTAMINATION IN
EULE SYSTEM. MACHINE STILL WOULD NOT RUN BECAUSE WAS NOT GETTING FUEL TO INJECT
ORS TOLD CUSTOMER THEY POSSIBLE HAD EITHER BAD TRANSFER PUMP OR INJECTION PUMP.
CUSTOMER TOLD US THAT THEY WOULD HAVE THERE MECHANIC FIX PUMP.

PARTS:

Qty	Part Number	Description	Stk/Cls	Bin Loc	U/M	Price	Extended
1	3674	FUEL FILTER	NAPA		EA	9.840	9.84
1	ENV	ENVIRONMENTAL CHARGE	MCI			.590	.59

LABOR:

Mechanic	Hours Work		Rate	Extended
PAT MCCOLLUM	1.50	REPAIR AND TRAVEL TIME	75.00	112.50

Total Parts & Materials	10.43
Total Labor	112.50
Total Amount	**122.93**

Copy

42016

IMPORTANT - PLEASE READ CAREFULLY. CUSTOMER AGREES TO ALL TERMS AND CONDITIONS SHOWN ON THE BACK, AND FRONT, OF THIS CONTRACT. CUSTOMER ASSUMES FULL RESPONSIBILITY FOR ALL ITEMS, INCLUDING THEIR SAFETY AND PROPER USE, OPERATION, MAINTENANCE, STORAGE, AND TRANSPORTATION.
WARRANTY DISCLAIMER: AS DESCRIBED ON THE BACK OF THIS CONTRACT, UNITED RENTALS MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTIES, EXPRESS OR IMPLIED.
TERMS AND CONDITIONS ON THIS SERVICE CONTRACT FORM THE SOLE AGREEMENT BETWEEN CUSTOMER AND UNITED RENTALS.
CUSTOMER ACKNOWLEDGES THAT HE HAS RECIVED IN GOOD ORDER ALL ITEMS, SERVICE AND OTHER GOODS LISTED ON THE FACE OF THIS CONTRACT.

X

CUSTOMER SIGNATURE | DATE | NAME PRINTED | UNITED RENTALS AGENT | DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

United Rentals
4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

RENTAL RETURN INVOICE
** COPY **

Job Site
PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer
PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29591098-001
Invoice date 11/08/02
Date out.... 11/06/02 4:25 PM
Date in..... 11/07/02 10:49 AM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 060488 ✓ on file
Ordered By.. COREY LOWELL
Written by.. UR268TK
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	LIGHT TOWER TOWABLE SM *	75.00	75.00	225.00	650.00	75.00
	141391 Make: MAGNUM Model: 4060I-MC-MH Ser #: 99389					
	HR OUT: 2067.00 HR IN: 2071.80 TOTAL:		4.80			

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV ENVIRONMENTAL CHARGE	MCI	EA	.360	.36
5.5	DSL DIESEL	MCI	EA	3.800	20.90
	PICKUP CHARGE				40.00

Sub-total: 115.36
Fuel: 20.90
Total: 136.26

RENTAL PROTECTION DECLINED

42016

RECEIVED

COPY

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X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153082

Statewide Rent-A-Fence of Oregon, Inc
PO Box 5787
Aloha, OR 97006
(503) 221-0238

Invoice

Number: 936
Date: 11-Nov-2002
P.O. Number:

BILL TO

Pacific Northern Environmental
55 International Way
Longview, WA 98632

JOB SITE

Schnitzer Steel
12005 N Burgard Rd
Portland, OR

From	=>	To	Unit/Service Type	Quantity	Price	Per	Tax?	Extension
2002	=>	05-Dec-2002	Panels-6x10 Construction	220	$0.30	LF	☑	$66.00
2002	=>	05-Dec-2002	Panel-Blocks	22	$0.00	EA	☑	$0.00
2002	=>	05-Dec-2002	Panel-Clamps	22	$0.00	EA	☑	$0.00

Tax Rate	Description		
0	Oregon	Subtotal Taxable Rental:	$66.00
		Rental Tax:	$0.00
		Please Pay:	**$66.00**

Rental Period: 1 month or less

Payment Terms: Net 10

RECEIVED
NOV 13 2002
By

42016

Daily Re-Rental is $.30 LF
Net 10 days or as otherwise indicated in your Rental Contract. Delinquent accounts shall be subject to a 1.5% per month late charge

SCHN00153083

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER		
011-6956522		
PAY THIS AMOUNT	INVOICE DATE	PAGE
801.00	11/06/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
WILL CALL AT AMERICAN YARD
@ MG WAREHOUSE
PORTLAND, OR 97666

on verbal per Miles 11-15

42016

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	10/31/02	Direct	Prepaid	60752 Miles	

LIC	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
				TERMINANAL 4 / SCHNITZER				
2	100	100		6 DUCTILE IRON FASTITE CL/53 W/GSK	8.01000	FT		801.00

42016

OTHER CHARGES

SUB-TOTAL	801.00
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	801.00

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153084

ORIGINAL INVOICE

FROM
FNW PORTLAND
2121 N COLUMBIA BLVD
PORTLAND, OR
97217-6850

REMIT TO
FNW PORTLAND
PO BOX 6005
PORTLAND, OR
97228
(503) 283-3333

INVOICE NUMBER		
001-6955933		
PAY THIS AMOUNT	INVOICE DATE	PAGE
638.40	11/07/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00001337 6 1337

SHIP TO
CUSTOMER PICKUP

ok verbal per Miles 11-15
4/2016

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
001	5912	11/06/02	Pickup	Prepaid	60752 Miles	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	120	120		2 T304L S-40 STNLS PIPE A312 SEAZH H36349	5.32000	FT		638.40

RECEIVED NOV 12 2002

4/2016

OTHER CHARGES

SUB-TOTAL	638.40
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	638.40

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153085

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER
011-7009718

PAY THIS AMOUNT	INVOICE DATE	PAGE
64.99	11/06/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

2

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00001521 9 1521

SHIP TO
CUSTOMER PICKUP

42016 verbal Can't locate PO

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/04/02	Pickup	Prepaid	057487 Don A.	

LC	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	20	20		3/4 HEAVY HEX NUT ZINC	.45000	EA		9.00
2	30	30		3/4 FLAT WASHER ZINC	.23000	EA		6.90
3	3	3		3/4X21/2 MACHINE BOLT ZINC	1.01000	EA		3.03
4	10	10		3/4X10FT PLTD ALL THREAD ROD PER FT	4.41000	FT	55	19.85
	6	6		6 150 RED RUBBER 1/8 FF GASKET	7.28000	EA	40	26.21

RECEIVED NOV 12 2002 BY

42016

OTHER CHARGES

SUB-TOTAL	64.99
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	64.99

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM001 FAM00101.STP 00001521 J 00002556

SCHN00153086

United Rentals

9050 NE HALSEY ST.
PORTLAND, OR 97220
503-255-3449

RENTAL RETURN INVOICE

Job

SCHNITZER STEEL
12005 N BURGARD ST
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29580628-001
Invoice date 11/19/02
Date out.... 11/09/02 10:45 AM
Date in..... 11/18/02 12:54 PM

Job Loc..... 12005 N BURGARD ST, PORTLAND
Job No..... 1 - SCHNITZER STEEL
P.O. #..... 060488
Ordered By..
Written by.. URB12WD
Salesperson. 99
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
5	CROSSING PLATE 8 X 12	20.50	10.00		123.00	600.00
1	CROSSING PLATE LIFT SCREW 1.2	12.50	6.50		75.50	75.50
	DELIVERY CHARGE					85.00
	PICKUP CHARGE					85.00

Sub-total: 845.50
Total: 845.50

RENTAL PROTECTION DECLINED

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NOV 21 2002
By

PAID

42016

PLEASE PAY FROM THIS COPY

*ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon accepting the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to 14% of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occuring during normal and carefull use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* /_____/ *Customer Declines* /_____/

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in the rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery; (2) Op[illegible] Rental Proection Plan charge is [illegible] of the total rental charge for covered equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays. (4) This rer[illegible]eement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms; (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE	DATE	NAME PRINTED	DELIVERED BY	DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153087

H.D. Fowler Company

PO Box 160 • Bellevue, Washington • 98009-0160

Bellevue	425-746-8400	Olympia	360-459-7300
Bellingham	360-734-8400	Pacific	253-863-8600
Bremerton	360-377-4507	Pasco	509-545-0255
Clackamas	503-656-3900	Spokane	509-568-8400
Hillsboro	503-626-2466	Wenatchee	509-886-8804
Marysville	360-651-2400	Yakima	509-248-8400

Invoice Number I1222341

CLWH

To: PACIFIC NORTHERN ENVIRONMENTAL # 161615
1081 COLUMBIA BLVD
LONGVIEW WA 98632

Terms: NET 10TH PROX Due: 11/10/02

Ship to: 1081 COLUMBIA BLVD
LONGVIEW WA 98632

Order#:	Inv Date:	Order Writer:
O1448600	10/31/02	BEN SMITH

FOB:	Ship Via:	PO/JOB:
H. D. FOWLER COMPANY	OUR TRUCK	600753 SCHINZER STEEL 42016

Line	Qty Ship'd	Qty BO'd	UoM	Part # Description	Unit Price	Extended Price	T X
6	1	0	EA	10" X 6" FL TEE DI, AWWA C110, C/L	305.410	305.41	
2	2	0	EA	6" FL SWING CHECK VALVE AWWA C508 RUBBER FACED	519.150	1,038.30	

B/order on per Miles 11-22

RECEIVED NOV - 4 2002

42014

PAID

Please note: We have eliminated our two-part invoices and replaced them with these single sheet, laser-printed copies. If you need two copies of your invoices, please call our Credit Department @ 1-800-487-5290.

MILES

Sub Total	1,343.71
Freight	0.00
Tax	0.00
Grand Total	1,343.71

Serving the Pacific Northwest since 1935

SCHN00153088

ORIGINAL INVOICE

FROM:
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO:
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER		
011-7084246		
PAY THIS AMOUNT	INVOICE DATE	PAGE
414.31	11/19/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO:
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO:
CUSTOMER PICKUP

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/13/02	Pickup	Prepaid	060853	

LIC	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	3	3		6 MJ SSB SOLID LONG SLV L/ACC D	54.49000	EA		163.47
2	1	1		10 DUCT IRON BLIND FLANGE AWWA D	83.68000	EA		83.68
3	6	6		6 EBAA MEGA LUG DI KIT - STD GSK	27.86000	EA		167.16

42016

PAID

...ER CHARGES

SUB-TOTAL	414.31
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	414.31

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153089

RENTAL RETURN INVOICE

United Rentals
4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

Job Site
PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer
PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29625054-001
Invoice date 11/20/02
Date out.... 11/08/02 7:00 AM
Date in..... 11/20/02 12:01 PM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 057456
Ordered By.. COREY 849-6774
Written by.. UR268CB
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	PUMP 4INTRASH DIESEL TOWABLE*	74.00	74.00	294.00	882.00	588.00
	755-7-11 Make: THOMPSON Model: F3L-1011 Ser #: 4HT318					
	HR OUT: 3599.10 HR IN: 3620.50 TOTAL: 21.40					
1	TRAILER SMALL EQUIPMENT *					N/C
	241124 Make: BESTTRAILR Model: UP4X6T Ser #: 1B9UP1017Y1245077					
6	DISCHARGE HOSE 4 IN X 50 FT H	21.00	21.00	63.00	189.00	756.00
2	SUCTION HOSE 4 IN X 12 TO 20	16.00	16.00	32.00	63.00	126.00

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV	MCI	EA	2.820	2.82
	ENVIRONMENTAL CHARGE				
	DELIVERY CHARGE				150.00

Schnitzer steel emergency call
8:00

RENTAL PROTECTION DECLINED

Sub-total: 1622.82
Total: 1622.82

42016

ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon accepting the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to 4% of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occurring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* ( ) *Customer Declines* ( )

READ BEFORE SIGNING. United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery. (2) Optional Rental Protection Plan charge is ____ of the total rental charge for covered equipment. (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays. (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms. (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

United Rentals
4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

RENTAL RETURN INVOICE

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29574519-001
Invoice date 11/20/02
Date out.... 11/06/02 8:22 AM
Date in..... 11/20/02 12:01 PM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 000851
Ordered By.. TRACY ENNIS
Written by.. UR268CB
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	PUMP 2 IN TRASH *	27.00	27.00	79.00	237.00	173.75
	755-2-154 Make: MULTI QUIP Model: QP202TH Ser #: 202TH-3232					
1	DISCHARGE HOSE 2 IN X 50 FT	11.00	11.00	21.00	42.00	42.00
1	SUCTION HOSE 2 IN X 20 FT	11.00	11.00	21.00	32.00	32.00

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV ENVIRONMENTAL CHARGE	MCI	EA	.830	.83

Sub-total: 248.58
Total: 248.58

RENTAL PROTECTION DECLINED

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42016

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X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

AMERICAN BARRICADE CO.

541/343-0143 EUGENE, OREGON | 503/378-0020 SALEM, OREGON | 503/285-6616 PORTLAND, OREGON

RENTAL and SALE OF BARRICADING EQUIPMENT

ACCT. NO. P-2484

PLEASE PAY BY THIS INVOICE. NO STATEMENT WILL BE SENT.

REMIT TO:
P.O. BOX 1482
EUGENE, OR. 97440

INV. DATE 11-20-02

INV. NO. RP-8429

Pacific Northern Env.
1081 Columbia Blvd.
Longview, WA 98632

JOB ADDRESS • PO#060486 ✓ on file will call

DELIVERY ORDER NUMBER	AMOUNT ORDERED	CODE DESCRIPTION	PICK UP ORDER NUMBER	AMOUNT PICK UP	FROM	TO	DAYS USED	AMOUNT USED	COST PER ITEM	DEBIT
75606	1	12" Test Ball	75841	1	11-5	11-20	16	1	2.46	$ 39.36
"	1	8" Tesst Ball	"	1	11-5	11-20	16	1	1.20	$ 19.20
			end of Job							$ 58.56

42016

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TERMS: NET 10th OF FOLLOWING MONTH

WE INVOICE MONTHLY ON THE 20th AND AT THE END OF THE JOB

Lights L
Barricade . . . . . B
Small Cones . . . . . SC
Large Cones LC
Master Cones . . . . . MC
Signs With Barricades . . . . . SW/B
Signs Without Barricades . . . . . SW/O
Traffic Standards Double Face TSTO/DF
Traffic Standards with Signs TSTD/WS
Hand Paddles . . . . . HP
Flags . . . . . F
Highway Delineators . . . . . HD

Contractor Responsible for Loss, Theft or Damage.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

VANCOUVER, WASH. • PORTLAND • SALEM • EUGENE • COOS BAY • SEATTLE

Driver [signature]

Received By

Customer Responsible For Loss, Theft or Damage

NOTICE: American Barricade Co. shall be held harmless for the quantity of equipment ordered and the placing of the equipment on the job.

SCHN00153092

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER		
011-7113906		
PAY THIS AMOUNT	INVOICE DATE	PAGE
86.98	11/19/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

4

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00000793 6 793

SHIP TO
CUSTOMER PICKUP

RECEIVED
NOV 22 2002
By

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/18/02	Pickup	Prepaid	060491 Vanfile	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1	1		12 X 12 CIXCI FLEX CPLG 1056-1212	54.18000	EA	15	46.05
2	28	28		7/8 HEAVY HEX NUT ZINC	.81000	EA		22.68
3	1	1		6 PVC HXH STRT TEE SOLVENT	12.60000	EA	15	10.71
4	1	1		10 150 RED RUBBER 1/8 FF GASKET	12.56000	EA	40	7.54

42016

OTHER CHARGES

SUB-TOTAL	86.98
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	86.98

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153093

Hanson

ORIGINAL INVOICE
HANSON PIPE & PRODUCTS, INC.
DEPT 0776
P.O. BOX 120001
DALLAS, TEXAS 75312-0776

INVOICE DATE	PAGE NO.
10/18/02	1
INVOICE NUMBER	
631002760299	
SALES CONTRACT	CUSTOMER NO.
11474	11353
CUSTOMER ORDER	
~~060467~~	

SOLD TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

10/25 Cory PO 60467 was only written for $915.00 CAN you revise PO please thx Denise

Cory L.

SHIP TO: SCHNITZER STEEL 12005 N BURGARD
CONTACT: MILES @ 503-209-4019 SALES: BOB CROW
PORTLAND, OR FOB DESTINATION

DATE	PLT NO	REFERENCE NUMBER	DESCRIPTION	QUANTITY SHIPPED	UNIT	PRICE	AMOUNT
10170	2631	0193200	7' LADDER GALV.	1.00	EA		
			LADDER ALUMINUM UP	1.00	EA		
			1.25" X 14.5' PREFORMED	8.00	EA		
			PLASTIC GASKET				
			COVER 810 VAULT W/ACCESS	1.00	EA		
			BASE 810 VAULT	1.00	EA		
			DUCT 810 VAULT	1.00	EA		
			36"X 72" DOORS	1.00	EA		
			Structure Total			PO 59223	3600.00
10170	2631	0159512	ALL-CRETE 20 MIN-50LBS BAGS PO 57476	6.00	EA	18.00	108.00
			MATERIAL SUB-TOTAL				3708.00

42016

RECEIVED OCT 24 2002 By

1 MS: NET 30
ALL INVOICE ARE DUE AND PAYABLE IN:
P.O. BOX 120001 DALLAS, TEXAS 75312-0776
THESE SALES ARE EXPRESSLY CONDITIONED ON THE TERMS AND CONDITIONS OF SELLER'S STANDARD SALES CONTRACT.
COPY AVAILABLE UPON REQUEST. (214)525-5898

TOTAL QUANTITY	SALES TAX	
20.00	029	.00
TAKE DISCOUNT OF	IF PAID ON OR BEFORE	AMOUNT DUE
$ .00	MO. DAY	3708.00

SCHN00153094

Hanson

ORIGINAL INVOICE
HANSON PIPE & PRODUCTS, INC.
DEPT 0776
P.O. BOX 120001
DALLAS, TEXAS 75312-0776

INVOICE DATE	PAGE NO.
11/06/02	1
INVOICE NUMBER	
631002763583	
SALES CONTRACT	CUSTOMER NO.
11474	11353
CUSTOMER ORDER	
~~060467~~ 59247V	

SOLD TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

PO#?

SHIP TO: SCHNITZER STEEL 12005 N BURGARD
CONTACT: MILES @ 503-209-4019 SALES: BOB CROW
PORTLAND, OR FOB DESTINATION

DATE	PLT NO	REFERENCE NUMBER	DESCRIPTION	QUANTITY SHIPPED	UNIT	PRICE	AMOUNT
11/05/02	63	10159853	120" MJ TOP SLAB	1.00	EA	2000.00	2000.00
			1.25" X 14.5' PREFORMED PLASTIC GASKET	5.00	EA	.00	N/C
			MATERIAL SUB-TOTAL				2000.00

RECEIVED
NOV - 8 2002
By

42016

TERMS: NET 30
AMOUNTS ON INVOICE ARE DUE AND PAYABLE IN:
P.O. BOX 120001 DALLAS, TEXAS 75312-0776
THESE SALES ARE EXPRESSLY CONDITIONED ON THE TERMS AND CONDITIONS OF SELLER'S STANDARD SALES CONTRACT.
COPY AVAILABLE UPON REQUEST. (214) 525-5898

TOTAL QUANTITY	SALES TAX	
6.00	029	.00
TAKE DISCOUNT OF	IF PAID ON OR BEFORE	AMOUNT DUE
$ .00	MO. DAY	2000.00

PAID

SCHN00153095

Hanson

ORIGINAL INVOICE
HANSON PIPE & PRODUCTS, INC.
DEPT 0776
P.O. BOX 120001
DALLAS, TEXAS 75312-0776

INVOICE DATE	PAGE NO.
11/11/02	1
INVOICE NUMBER	
631002764305	
SALES CONTRACT	CUSTOMER NO.
11474	11353
CUSTOMER ORDER	
060467	

SOLD TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

SHIP TO: SCHNITZER STEEL 12005 N BURGARD
CONTACT: MILES @ 503-209-4019 SALES: BOB CROW
PORTLAND, OR FOB OUR PLANT

DATE	PLT NO	REFERENCE NUMBER	DESCRIPTION	QUANTITY SHIPPED	UNIT	PRICE	AMOUNT
11/08/02	631	159911	S106-16B KOR-N-SEAL	1.00	EA	78.00	78.00
			MATERIAL SUB-TOTAL				78.00

42016

RECEIVED NOV 14 2002 By

TERMS: NET 30
ALL INVOICE ARE DUE AND PAYABLE IN:
P.O. BOX 120001 DALLAS, TEXAS 75312-0776
THESE SALES ARE EXPRESSLY CONDITIONED ON THE TERMS AND CONDITIONS OF SELLER'S STANDARD SALES CONTRACT.
COPY AVAILABLE UPON REQUEST. (214) 525-5898

TOTAL QUANTITY	SALES TAX	
1.00	029	.00
TAKE DISCOUNT OF	IF PAID ON OR BEFORE	AMOUNT DUE
$ .00	MO. DAY	78.00

PAID

SCHN00153096

Hanson

DUPLICATE INVOICE
HANSON PIPE & PRODUCTS, INC.
DEPT 0776
P.O. BOX 120001
DALLAS, TEXAS 75312-0776

INVOICE DATE	PAGE NO.
10/22/02	1
INVOICE NUMBER	
631002760861	
SALES CONTRACT	CUSTOMER NO.
11474	11353
CUSTOMER ORDER	
~~060467~~ 607601	

SOLD TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

SHIP TO: SCHNITZER STEEL 12005 N BURGARD
CONTACT: MILES @ 503-209-4019 SALES: BOB CROW
PORTLAND, OR FOB OUR PLANT

DATE	PLT NO	REFERENCE NUMBER	DESCRIPTION	QUANTITY SHIPPED	UNIT	PRICE	AMOUNT
102102	6310	159559	TRUCK STAND BY TIME	1.00	HRS	85.00	85.00
			MATERIAL SUB-TOTAL				85.00

42016

TERMS: NET 30
INVOICE ARE DUE AND PAYABLE IN:
P.O. BOX 120001 DALLAS, TEXAS 75312-0776
THESE SALES ARE EXPRESSLY CONDITIONED ON THE TERMS AND CONDITIONS OF SELLER'S STANDARD SALES CONTRACT.
COPY AVAILABLE UPON REQUEST. (214)525-5898

TOTAL QUANTITY	SALES TAX	
1.00	029	.00
TAKE DISCOUNT OF	IF PAID ON OR BEFORE	AMOUNT DUE
$ .00	MO. DAY	85.00

SCHN00153097

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

INVOICE NUMBER		
011-7135934		
PAY THIS AMOUNT	INVOICE DATE	PAGE
194.54	11/22/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

2

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00001318 6 1318

SHIP TO
CUSTOMER PICKUP

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/20/02	Pickup	Prepaid	060856	

LIN	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	2	2		STANDON 10 S-8910 PIPE SUPPORT (EA)	97.27000	EA		194.54

42016

RECEIVED
NOV 25 2002
By

OTHER CHARGES

SUB-TOTAL	194.54
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	194.54

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM001 FAM00101.RTP 00001318 / 00002195

SCHN00153098

ORIGINAL INVOICE

FROM
FNW WATERWORKS
9129 N TYNDALL
PORTLAND, OR
97217

REMIT TO
FNW WATERWORKS
PO BOX 6005
PORTLAND, OR
97228
(503) 240-6747

REF. 7051984

PAY THIS AMOUNT	INVOICE NUMBER	
	C011-7114065	
	INVOICE DATE	PAGE
15.32-	11/21/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
CUSTOMER PICKUP

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
011	5912	11/19/02	Pickup	Prepaid	CM7051984	PO 60491 On file

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1-	1-		6 PVC GASKETED SEWER TEE GXG	21.89000	EA	30	15.32-

42014

THER CHARGES

SUB-TOTAL	15.32-
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	15.32-

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153099

ORIGINAL INVOICE

FROM
FNW PORTLAND
2121 N COLUMBIA BLVD
PORTLAND, OR
97217-6850

REMIT TO
FNW PORTLAND
PO BOX 6005
PORTLAND, OR
97228
(503) 283-3333

INVOICE NUMBER		
001-7113927		
PAY THIS AMOUNT	INVOICE DATE	PAGE
26.33	11/21/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
CUSTOMER PICKUP

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
001	5912	11/19/02	Pickup	Prepaid	060491	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	10	10		7/8X10FT PLTD ALL THREAD ROD PER FT	5.85000	FT	55	26.33

42014

OTHER CHARGES

SUB-TOTAL	26.33
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	26.33

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM001 FAM1BFRTP 00000121 / 00000934

SCHN00153100

* I N V O I C E *

FROM : DEDICATED FUELS, INC.
: 280 NEWMARK
: NORTH BEND, OR 97459
: (541) 756-3426

INVOICE: CL22269
INVOICE DATE: 10/31/02
PAGE: 9
ACCOUNT NO: 0000192

22075 Diesel 66.16

BILL: PACIFIC NORTHERN ENVIRONMENTAL
TO : 1081 COLUMBIA BLVD
: LONGVIEW, WA 98632

ACCOUNT: 0000192 INVOICE: CL22269 DATE: 10/31/02 PAGE: 9

FUELING LOCATION	DATE	TIME	ODOM.	MPG	PROD	QUANTITY	PRICE	AMOUNT	CARD IDENTIFICATION	MISC KBD
DRIVER#: 2942825 DON ALLOWAY			0 = Beginning odometer							
3037 NW 29th Ave., Portland, Or	10/01/02	11:55A	0	*****	UNL	23.00	1.5190	34.94		27
3037 NW 29th Ave., Portland, Or	10/01/02	03:51P	0	*****	UNL	8.30	1.5190	12.61		27
3037 NW 29th Ave., Portland, Or	10/02/02	08:11A	0	*****	UNL	3.60	1.5190	5.47		27
303 29th Ave., Portland, Or	10/02/02	11:07A	0	*****	UNL	3.60	1.5190	5.47		27
303 W 29th Ave., Portland, Or	10/03/02	09:39A	0	*****	UNL	13.50	1.4990	20.24		27
3037 NW 29th Ave., Portland, Or	10/03/02	05:51P	0	*****	UNL	10.50	1.4990	15.74		27
3037 NW 29th Ave., Portland, Or	10/04/02	10:05A	0	*****	UNL	7.00	1.4990	10.49		27
3037 NW 29th Ave., Portland, Or	10/04/02	10:23A	0	*****	DSL	69.30	1.4490	100.42	42016	27
1260 SW Third, Corvallis, OR	10/04/02	05:55P	0	*****	UNL	10.25	1.4890	15.26		27
3037 NW 29th Ave., Portland, Or	10/07/02	07:29A	0	*****	UNL	12.20	1.4990	18.29		27
3037 NW 29th Ave., Portland, Or	10/08/02	02:53P	0	*****	UNL	31.90	1.4990	47.82		27
3037 NW 29th Ave., Portland, Or	10/08/02	03:57P	0	*****	UNL	10.90	1.4990	16.34		27
I-5 & Highway 34, Albany, ORE	10/10/02	06:00A	0	*****	UNL	11.40	1.4890	16.97		27
7832 Squirrel Hill Rd., Salem, Ore	10/14/02	06:07A	0	*****	UNL	10.34	1.4790	15.29		27
3037 NW 29th Ave., Portland, Or	10/16/02	07:12A	0	*****	UNL	37.30	1.4990	55.91		27
3037 NW 29th Ave., Portland, Or	10/18/02	08:06A	0	*****	UNL	39.20	1.4890	58.37		27
7832 Squirrel Hill Rd., Salem, Ore	10/19/02	06:14P	0	*****	UNL	38.62	1.4790	57.12		27
I-5 & Highway 34, Albany, ORE	10/21/02	11:06A	0	*****	UNL	11.06	1.4890	16.47		27
25 Main St., Monroe, OR	10/22/02	09:41A	0	*****	UNL	36.70	1.4690	53.91		27
037 NW 29th Ave., Portland, Or	10/23/02	12:03P	0	*****	UNL	22.50	1.4890	33.50		27
037 NW 29th Ave., Portland, Or	10/23/02	07:15P	0	*****	UNL	33.00	1.4890	49.14		27
037 NW 29th Ave., Portland, Or	10/24/02	03:23P	0	*****	DSL	95.60	1.4590	139.48	42016	27
411 Market St. NE, Salem, OR	10/25/02	03:33P	0	*****	UNL	28.51	1.4690	41.88		27
600 E. Hancock St., Newberg, OR	10/29/02	09:22A	0	*****	UNL	33.88	1.4590	49.43		27
037 NW 29th Ave., Portland, Or	10/30/02	12:54P	0	*****	UNL	10.80	1.4890	16.08		27
037 NW 29th Ave., Portland, Or	10/31/02	08:23A	0	*****	UNL	39.70	1.5090	59.91		27
037 NW 29th Ave., Portland, Or	10/31/02	09:57A	0	*****	UNL	5.00	1.5090	7.55		27
DRIVER TOTALS:						657.66		974.10	41-734-20	

NTINUED . . .

SCHN00153101

ITT Flygt Corporation

An ITT Industries company

2630 N MARINE DR.
PORTLAND, OR 97217
Tel.(503)240-1980

P.O. BOX 371630
Pittsburgh,PA 15250-7630

INVOICE			YOUR PURCHASE ORDER 059225
INVOICE NO. 07258530	FUS NO. 250036	DATE SHIPPED 11/05/02	DELIVERY NOTE 346527
INVOICE DATE 11/05/02	TRN A3	WHS 142	PAYMENT TERMS NET 30 DAYS

Sold To: Customer No. 077518

PACIFIC NORTHERN
ENVIRONMENTAL CORP
1081 COLUMBIA BLVD

LONGVIEW WA 98632

PO59225

Material only

Ship To:

PACIFIC NORTHERN ENVIROMENTAL
1081 COLUMBIA BLVD
LONGVIEW WA 98632

ORDER LEAD TIME	F.O.B/FREIGHT	ORDER PROCESSED BY
1 week or less ex Flygt port	Frt PP/Line Item	W BRANCH, PORTLAND, OR
SHIP VIA	ORDER TEXT	CUSTOMER TEXT
Shipper's choice		CSR GINA GOLDBECK

LINE	ITEM/DESCRIPTION	QUANTITY SHIPPED UM	UNIT PRICE DISCOUNT/CHARGE	NET PRICE	EXTENDED AMOUNT
	MARK SHIPMENT:059225				
001	0031271807351 NP439-6 7.5/460/3 40' FLS FV S/N:0260872 D/N 346527 S/N:0260873 D/N 346527 S/N:0260874 D/N 346527	3 EA			
002	1400000699848 START UP CHARGE - NO TAX	1 EA			
003	1400000699847 FREIGHT CHARGE-NO TAX	1 EA			
	TOT PRICE/GROUP 003 - 003				12,913.69
	SUB-TOTAL OF ORDER POSITIONS				12,913.69
	FREIGHT CHARGED AS LINE ITEM TOTAL WEIGHT 1,155.000 LBS				
	NET AMOUNT BEFORE TAXES				12,913.69
	42016				
					ORDER TOTAL 12,913.69

RECEIVED NOV - 7 2002 By

IMPORTANT: Please note the change in our remit to address

SCHN00153102

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
067-6980525		
PAY THIS AMOUNT	INVOICE DATE	PAGE
1,433.22	11/08/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
101101 BURGARD
TERMINAL #4
PORTLAND, OR 97296

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	10/31/02	ATLANTIC #2696	Prepaid	060482	

LIC	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	200	200		12 SDR 26 HDPE PIPE X 40FT AWWA	6.08000	FT		1,216.00
2	1	1		12X10 SDR 17 HDPE MOLDED REDUCER	96.22000	EA		96.22
3	1	1		SHIPPING AND HANDLING - OUT	121.00000	EA		121.00

42016

PAID

OTHER CHARGES

SUB-TOTAL	1,433.22
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	1,433.22

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153103

RENTAL RETURN INVOICE

United Rentals
4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29587315-002
Invoice date 11/09/02
Date out.... 11/06/02 1:26 PM
Date in..... 11/09/02 9:15 AM

Job Loc..... SCHNITZER STEEL
Job No..... 42016 Site
P.O. #..... 060488
Ordered By.. COREY LAVELL
Written by.. UR268CB
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	RAMMER LG 30-3600 LBS/BLOWS *	55.00	65.00	215.00	545.00	195.00
	465702 Make: MULTI QUIP Model: MT65H Ser #: K3425					
	Sent out unit #465702					

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV	MCI	EA	.930	.93
	ENVIRONMENTAL CHARGE				

Sub-total: 195.93
Total: 195.93

RENTAL PROTECTION DECLINED

42016

*ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon acceptance of the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to _____ of the rental charges on Equipment Customer wants covered by the Rental Protection Plan, in return, as set out on the back page. United agrees to waive certain claims for accidental damage to such covered Equipment occurring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* (_____) *Customer Declines* (_____)

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery; (2) Optional Rental Protection Plan charge is _____ of the total rental charge for covered equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays; (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms; (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153104

PAGE 01

HOME DEPOT CO[redacted] CR[redacted]

PAYMENT STUB

Page 1 of 8

059249

20

ount 1 587116 7 Statement Date: 11/02/02 Page 1 of 8 Account: 7901 587116 7

VE TIME! VIEW, MANAGE AND PAY YOUR ACCOUNT ONLINE
HOMEDEPOT.COM. CLICK ON CREDIT CENTER TO SIGN UP.

PNE CORP
ATTN: A/P
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

PLEASE INDICATE ADDRESS CHANGES

S 802723 001-008

PNE CORP
ATTN: A/P
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

RECEIVED
NOV - 8 2002
By

PAYMENT ADDRESS
HOME DEPOT/GECF
P.O. BOX 9903
MACON, GA 31297-9903

DUE DATE: 11/20/02

Payments Received

/14/02 0024103 (2068.38) PAYMENT RECEIVED - THANK YOU

Current Invoices (Details for Current Month's Invoices Enclosed)

te	Invoice	Amount	Due Date	Store	Reference	Date	Invoice	Please Indicate by ☑ Invoices Paid	Amount
'03/02	6100795	244.37	11/20/02	4002	060454 658.20	10/03/02	6100795	☐	244.37
'04/02	5120673	151.60	11/20/02	4002	59249/CANBY SH 42013	10/04/02	5120673	☐	151.60
'10/02	9020789	64.07	11/20/02	4718	060460 42018	10/10/02	9020789	☐	64.07
'11/02	8011932	25.61	11/20/02	4007	060460 42018	10/11/02	8011932	☐	25.61
'17/02	2014328	35.66	11/20/02	4007	060473 42018	10/17/02	2014328	☐	35.66
'17/02	2014329	218.27	11/20/02	4007	060474 658.20	10/17/02	2014329	☐	218.27
'18/02	1042128	11.55	11/20/02	4007	060473 42018	10/18/02	1042128	☐	11.55
'20/02	9010435	151.35	11/20/02	4007	060473 42018	10/20/02	9010435	☐	151.35
'23/02	6010811	16.06	11/20/02	4007	060478 42018	10/23/02	6010811	☐	16.06
'23/02	6010890	49.09	11/20/02	4007	42016 42016	10/23/02	6010890	☐	49.09
'23/02	6022396	131.18	11/20/02	4007	42016 42016	10/23/02	6022396	☐	131.18
'24/02	5022449	15.37	11/20/02	4007	060479 42018	10/24/02	5022449	☐	15.37
'28/02	1020508	169.00	11/20/02	4007	60751 42016	10/28/02	1020508	☐	169.00
'30/02	9011849	5.17	11/20/02	4007	57342 22067	10/30/02	9011849	☐	5.17
'30/02	9022278	62.59	11/20/02	4725	57341 661.21	10/30/02	9022278	☐	62.59
'31/02	8020966	46.04	11/20/02	4007	42106 42016	10/31/02	8020966	☐	46.04
'31/02	8081347	48.83	11/20/02	4402	59864 Mark 22098	10/31/02	8081347	☐	48.83

Unapplied Payments & Credits

te	Reference	Amount	Description	Date	Reference	Please Indicate by ☑ Credits Applied	Amount
24/02	5331984	(49.80)	CR MEMO - 42018	10/24/02	5331984	☐	(49.80)

total
$1,196.01

658.20 - 462.64 42016 395.31
42013 - 151.60
CODE 42018 - 319.67 42018 (49.80)
22067 - 5.17
661.21 - 62.59
22098 - 48.83

- Continue -

ICE | UNIT

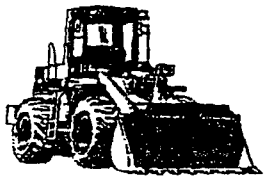
chasing Agent

SCHN00153105

INVOICE

ORIGINAL INVOICE

11/06/02



THANK YOU FOR RENTING FROM HERTZ!

CUSTOMER NUMBER: 0549006 RES/QUOTE NUMBER: DOCUMENT NUMBER: 3972104-001

PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

PO NUMBER:	057475 SNITZER S
JOB NUMBER:	1 - N COLUMBIA WAY &
ORDERED BY:	ALLOWAY, DON
SIGNED BY:	UNABLE TO OBTAIN
DELIVERED BY:	HERTZ
RENTAL START DATE:	10/15/02 10:00
CLOSED BY:	JAMES CAMAIONI
SALES REP:	BRIAN LYONS

SHIPPING ADDRESS:
N COLUMBIA WAY & FESSENDEN
N FESSENDEN & N COLUMBIA WAY
PORTLAND, OR 97213

HERTZ LOCATION: 724
4939 N.E. COLUMBIA BLVD.
PORTLAND, OR 97218
503-287-5789

RENTAL DAYS:	19
INVOICE FROM DATE:	10/15/02 10:01
INVOICE THRU DATE:	11/05/02 15:08

PAYMENT TERMS ARE NET 10 DAYS

Customer is responsible for FUEL, FLATS, DAMAGE and CLEANUP FEES.

LATE CHARGES MAY APPLY
FOR CUSTOMER SERVICE AND BILLING INQUIRIES CALL 1-800-456-6492

DIRECT PAYMENT TO:
HERTZ EQUIPMENT RENTAL
P.O. BOX 26390
OKLAHOMA CITY, OK 73126-0390

	ORIGINAL	ADJ	TOTAL
RENTAL CHARGES	162.00		162.00
LDW 14% of Rent Chgs	22.68		22.68
TOTAL CHARGES	184.68		184.68
NET DUE			184.68

RECEIVED
NOV 12 2002

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	RERENT MISC CATEGORY RR9750001	19.00	19.00	70.00	162.00	162.00

20' EXTERSION LADDER W/ STAND OFF
HERTZ PO 1148360

11/05/02 001 HERTZ CHARGE 184.68

42016

L CODE

RECEIVED

Detach and send bottom portion with payment.

ACIFIC NORTHERN ENVIRONM
081 COLUMBIA BLVD
ONGVIEW, WA 98632-1024

11/06/02

Customer Number: 0549006
Document Number: 3972104-001

PLEASE PAY THIS AMOUNT: 184.68

SCHN00153106

H.D. Fowler Company

PO Box 160 • Bellevue, Washington • 98009-0160

Bellevue	425-746-8400	Olympia	360-459-7300
Bellingham	360-734-8400	Pacific	253-863-8600
Bremerton	360-377-4507	Pasco	509-545-0255
Clackamas	503-656-3900	Spokane	509-568-8400
Hillsboro	503-626-2466	Wenatchee	509-886-8804
Marysville	360-651-2400	Yakima	509-248-8400

Invoice Number I1221222

CLWH

To: PACIFIC NORTHERN ENVIRONMENTAL # 161615
1081 COLUMBIA BLVD
LONGVIEW WA 98632

Terms: NET 10TH PROX Due: 11/10/02

Ship to: 1081 COLUMBIA BLVD
LONGVIEW WA 98632

Order#:	Inv Date:	Order Writer:
O1448600	10/30/02	BEN SMITH

FOB:	Ship Via:	PO/JOB:
H. D. FOWLER COMPANY	OUR TRUCK	60753 SCHINZER STEEL 42016

Line	Qty Ship'd	Qty BO'd	UoM	Part # Description	Unit Price	Extended Price	T X
6	2	1	EA	10" X 6" FL TEE DI, AWWA C110, C/L	305.410	610.82	
2	1	2	EA	6" FL SWING CHECK VALVE AWWA C508 RUBBER FACED	519.150	519.15	
1	3	0	EA	6" FLG PLUG VALVE WITH 1/4 TURN OPERATOR AND 2" OP-NUT MILLIKEN #601N1 WITHOUT LEVER HANDLE	365.630	1,096.89	

42016

Please note: We have eliminated our two-part invoices and replaced them with these single sheet, laser-printed copies. If you need two copies of your invoices, please call our Credit Department @ 1-800-487-5290.

MILES

Sub Total	2,226.86
Freight	0.00
Tax	0.00
Grand Total	2,226.86

Serving the Pacific Northwest since 1985

SCHN00153107

MASONS SUPPLY COMPANY

Locally Owned for over 80 Years
Mail Address: PO Box 42367
Portland, OR 97242

OREGON
Portland, OR
(503) 234-4321
(800) 537-3407
FAX (503) 234-5606

WASHINGTON
Woodinville, WA
(425) 487-6161
(800) 537-6216
FAX (425) 402-3676

INVOICE

DO' 'ENT: Invoice

UPC V	INVOICE DATE	ORDER NO.
000000	11/07/02	1087815-00

P.O. NO.	PAGE #
060852	1

CUST.#: 9821

SHIP TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD

LONGVIEW, WA 98632

CORRESPONDENCE TO:
Masons Supply Company
Po Box 42367

Portland, OR 97242

BILL TO: PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD

LONGVIEW, WA 98632

INSTRUCTIONS

SHIP POINT	SHIP VIA	SHIPPED	TERMS
Masons Supply Company	WILL CALL	11/07/02	1% 10th F/M

LINE NO.	PRODUCT AND DESCRIPTION	QUANTITY ORDERED	QUANTITY B.O.	QTY. SHIPPED	QTY. U/M	UNIT PRICE	AMOUNT (NET)
1	DR TDS-2-12 REBAR EATER SHANK 1/2" 12"	1	0	1	Ea	7.25	7.25
3	TDR RB-14 DRILLBIT 7/8" REBAR EAT HEAD ONLY DR RB-14	1	0	1	Ea	37.79	37.79
						Total	45.04
						Invoice Total	45.04

42016

CODE

RECEIVED
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BY

Last Page

Disclaimer of Warranties: Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of the products. No express warranty is made by seller or manufacturers with respect to the results of any use of the products. No implied warranties, including but not limited to an implied warranty of the merchantability, or an implied warranty of fitness for a particular purp... are made with respect to these products.

WARNING: Do not use silica sand as a dry abrasive blasting agent. Dry sawing, grinding, and sandblasting of concrete masonry products will result in the release of dust particles (respirable crystalline quartz) which could cause minor eye or nose irritation if proper protection is not in place. Respiratory and eye protection is required as specified in the Material Safety Data Sheet (MSDS) for Concrete Masonry Products, provided by this company.
HEALTH HAZARD WARNING: Prolonged inhalation of airborne silica particles contained in silica sand, and other silica-containing materials can cause delayed lung injury including SILICOSIS, a progressive, disabling and sometimes fatal lung disease. IARC has determined that crystalline and microcrystalline silica inhaled from occupational sources can cause cancer in humans. Laws require you take precautions for the safety of your employees and others who have contact with airborne silica particles. Notify your employees. Seller disclaims all liability for harmful health effects.

CA... FRESHLY MIXED CEMENT, MORTAR, CONCRETE, OR GROUT MAY CAUSE SKIN INJURY. AVOID CONTACT WITH SKIN WHERE POSSIBLE AND WASH EXPOSED SKIN AREAS PROMPTLY WI... ...TER. IF ANY CEMENT MIXTURES GET INTO EYES, RINSE IMMEDIATELY AND REPEATEDLY WITH WATER AND GET PROMPT MEDICAL ATTENTION. KEEP OUT OF REACH OF CHILDREN. CUSTOMER ASSUMES FULL RESPONSIBLITY FOR DAMAGE TO SIDEWALKS, CURBS, DRIVEWAYS, OR OTHER PROPERTY ON THE PREMISES WHEN REQUESTING DELIVERIES OF MATERIALS TO BE MADE OTHER THAN ON THE STREET. WHEN CUSTOMER REQUESTS MATERIAL, CUSTOMER ASSUMES RESPONSIBLITY FOR ANY DAMAGES RESULTING FROM LOADING MATERIALS ON VEHICLE. NO CREDIT WILL BE ISSUED FOR MATERIAL RETURNED 45 DAYS AFTER ORIGINAL PURCHASE. RETURNED MERCHANDISE MUST HAVE PRIOR APPROVAL OF THE SELLER AND WILL BE SUBJECT TO A 15% HANDLING CHARGE. MERCHANDISE MUST BE SALABLE AND RETURNED ON A FREIGHT PREPAID BASIS. A FINANCE CHARGE IS COMPUTED BY A SINGLE PERIODIC RATE OF 1½% WHICH IS AN ANNUAL PERCENTAGE RATE OF 18%.

IF AN ATTORNEY IS EMPLOYED TO ENFORCE THIS AGREEMENT, MASONS SUPPLY SHALL BE ENTITLED TO ATTORNEY FEES AND COSTS, IRRESPECTIVE OF WHETHER ANY LEGAL PROCEEDING IS COMMENCED. IF ANY LEGAL ACTION, ARBITRATION, OR OTHER PROCEEDING IS BROUGHT (INCLUDING ANY BANKRUPTCY), THE PREVAILING PARTY SHALL BE ENTITLED TO RECOVER REASONABLE ATTORNEY FEES AND OTHER COSTS, BOTH AT TRIAL AND ON APPEAL.

irport (PDX)	Clackamas, OR	Eugene, OR	Hillsboro, OR	Medford, OR	Salem, OR	Seattle, WA	Tualatin, OR	Tacoma, WA
03) 254-8818	(503) 722-1528	(541) 744-6696	(503) 533-0107	(541) 772-6161	(503) 585-5504	(206) 767-4645	(503) 612-6575	(253) 581-6161

SCHN00153108

United Rentals

4621 NW ST. HELENS RD
PORTLAND, OR 97210-0129
503-796-1235

RENTAL RETURN INVOICE

** COPY **

Job Site

PACIFIC NORTHERN ENVIRON-(ORE)
SCHNITZER STEEL
PORTLAND, OR 97201

C#: 360-423-2245 J#: 360-423-2245

Customer

PACIFIC NORTHERN ENVIRON-(ORE)
1081 COLUMBIA BLVD
LONGVIEW, WA 98632

Customer.... 67308
Invoice #... 29453522-001
Invoice date 11/05/02
Date out.... 10/31/02 9:24 AM
Date in..... 11/05/02 2:02 PM

Job Loc..... SCHNITZER STEEL
Job No..... 42016
P.O. #..... 057485
Ordered By.. TRACY
Written by.. UR268CB
Salesperson. 4624
Terms..... Net 30 Days

PLEASE REMIT PAYMENT TO:
UNITED RENTALS NORTHWEST, INC.
CREDIT OFFICE# 930
PO BOX 846394
DALLAS, TX 75284-6394

Qty	Equipment #	Min	Day	Week	4 Week	Amount
1	WELDER LEADS 5 FT WHIP STINGE	6.00	6.00	8.00	16.00	8.00
2	WELDER LEAD 50 FT. EXTRA	6.00	6.00	8.00	16.00	16.00
1	WELDER ARC 270 AMP *	45.00	65.00	190.00	570.00	190.00
	238109 Make: MILLER Model: 280NT Ser #: LA217444					
	HR OUT: 639.70 HR IN: 649.90 TOTAL: 10.20					
1	WELDING HELMET	6.00	8.00	23.00	89.00	23.00

SALES ITEMS:

Qty	Item number	Stock class	Unit	Price	Amount
1	ENV	MCI	EA	.910	.91
	ENVIRONMENTAL CHARGE				

Sub-total: 237.91
Total: 237.91

RENTAL PROTECTION DECLINED

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42016

COPY

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NOV 12 2002
By

*ENVIRONMENTAL CHARGE: The items indicated above are subject to an environmental charge which is designed to recover the company's direct and indirect expenses for the handling, managing and disposing of waste products, hazardous materials, and related administrative costs. This is not a government mandated charge.

OPTIONAL RENTAL PROTECTION PLAN: *THE RENTAL PROTECTION PLAN IS NOT INSURANCE!* Upon accepting the Optional Rental Protection Plan, the Customer agrees to pay a charge equal to _____ of the rental charges on Equipment Customer wants covered by the Rental Protection Plan. In return, as set out on the back page, United agrees to waive certain claims for accidental damage to such covered Equipment occuring during normal and careful use. Customer remains liable for all damages and loss due to theft listed under The Rental Protection Plan provisions in the Terms and Conditions on back page, including Customer's negligence. *Customer Accepts* (_____) *Customer Declines* (_____)

READ BEFORE SIGNING: United hereby leases to Customer the Equipment (as defined in the Terms and Conditions on the reverse side) and Customer hereby accepts all *TERMS AND CONDITIONS* listed in this rental agreement, including the Terms and Conditions set forth on the reverse side, which the undersigned has read and understands. REMINDERS: (1) Rates do not include fuel or delivery; (2) Optional Rental Protection Plan charges are _____ of the total rental charge for covered equipment; (3) Customer pays for all time the Equipment is out, including Saturdays, Sundays and Holidays; (4) This rental agreement supersedes all other purchase orders or terms and conditions contained in any of Customer's agreements or forms; (5) Customer assumes all risk and is responsible for all damages and other costs, including late charges. Details of the above as well as other obligations and responsibilities are contained in the TERMS AND CONDITIONS ON REVERSE. THE INDIVIDUAL SIGNING BELOW AS OR ON BEHALF OF CUSTOMER: (1) AGREES TO ALL OF THE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS RENTAL AGREEMENT, (2) ACKNOWLEDGES RECEIPT OF THE EQUIPMENT IN GOOD WORKING ORDER AND, (3) IS FULLY FAMILIAR WITH ITS OPERATION AND USE.

X

CUSTOMER SIGNATURE DATE NAME PRINTED DELIVERED BY DATE

A LARGER FONT COPY OF THE TERMS AND CONDITIONS IS AVAILABLE UPON REQUEST.

SCHN00153109

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
067-6930936		
PAY THIS AMOUNT	INVOICE DATE	PAGE
5,851.99	10/26/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
101101 BURGARD
TERMINAL #4
PORTLAND, OR 97296

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	10/24/02	ATLNATIC #2692	Prepaid	060480	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	900	900		10 SDR 17 HDPE PIPE X 40FT AWWA	5.90000	FT		5,310.00
2	2	2		10 SDR 11 HDPE FAB 45 ELL	89.59000	EA		179.18
3	1	1		10 SDR 17 HDPE FAB 90 ELL	166.18000	EA		166.18
4	1	1		SHIPPING AND HANDLING - OUT	196.63000	EA		196.63

~~42018~~
42016

Percory 11-13 Should be Job 42016

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NOV - 4 2002

OTHER CHARGES

SUB-TOTAL	5,851.99
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	5,851.99

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM001 FAM00101.RTP 00001917 / 00003177

SCHN00153110

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
067-6947613		
PAY THIS AMOUNT	INVOICE DATE	PAGE
86.58	10/26/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	10/29/02	WILL CALL	Prepaid	60480 Von file	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK/ ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1	1		10 SDR 17 HDPE MOLD FLG ADPT AWWA	57.60000	EA		57.60
2	1	1		10 150 LB DUCTILE IRON BACKUP RING	21.44000	EA		21.44
3	1	1		10 150 RED RUBBER 1/8 FF GASKET	12.56000	EA	40	7.54

~~42018~~
42016

per Cory 1H3
Chg Job to 42016

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NOV - 4 2002

OTHER CHARGES

SUB-TOTAL	86.58
OTHER CHARGES	.00
7.900 TAX	.00
TOTAL DUE	86.58

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153111

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
067-6980563		
PAY THIS AMOUNT	INVOICE DATE	PAGE
79.04	10/26/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

SHIP TO
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	10/31/02	WILL CALL	Prepaid	60480	

LIC	QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1	1		10 SDR 17 HDPE MOLD FLG ADPT AWWA	57.60000	EA		57.60
2	1	1		10 150 LB DUCTILE IRON BACKUP RING	21.44000	EA		21.44

~~42018~~ 42016 for Cory 11-13 Should be Job 42016

OTHER CHARGES	SUB-TOTAL	79.04
	OTHER CHARGES	.00
7.900	TAX	.00
	TOTAL DUE	79.04

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

FAM002 FAM2BF.RTP 00000831 / 00005881

SCHN00153112

ORIGINAL INVOICE

FROM
FNW INDUSTRIAL PLASTICS
740 S 28TH ST
WASHOUGAL, WA
98671-2512

REMIT TO
FNW INDUSTRIAL PLASTICS
PO BOX 6005
PORTLAND, OR
97228
(360) 835-2129

INVOICE NUMBER		
067-6933528		
PAY THIS AMOUNT	INVOICE DATE	PAGE
338.88	10/26/02	1

SUBJECT TO TERMS AND CONDITIONS ON REVERSE SIDE

BILL TO
PACIFIC NORTHERN ENVIRONMENTAL
1081 COLUMBIA BLVD
LONGVIEW, WA 98632-1024
00001819 8 1819

SHIP TO
101101 BURGARD
TERMINAL #4
PORTLAND, OR 97296

BR	CUSTOMER NO.	SHIPPING DATE	SHIPPED VIA	SHIPPING	CUSTOMER PURCHASE ORDER	CUSTOMER JOB DESCRIPTION
067	5912	10/29/02	WILL CALL	Prepaid	060480	

L/C	QUANTITY ORDERED	QUANTITY SHIPPED	BACK/ ORDERED	ITEM DESCRIPTION	UNIT PRICE	U/M	DISC	EXTENSION
1	1	1		10 SDR11 HDPE FAB WYE LATTERAL CLEAN OUT W/FAB 45 ELL ON THE BRANCH PROJECT #1	338.88000	EA		338.88
	1	1		MATERIAL LIST PROJECT #1	N	EA		

RECEIVED
NOV - 4 2002
BY

~~42018~~

per corg 11-13 should be Job 42016

OTHER CHARGES

SUB-TOTAL	338.88
OTHER CHARGES	.00
TAX	.00
TOTAL DUE	338.88

Past due accounts will be charged a SERVICE CHARGE at an ANNUAL PERCENTAGE RATE of 18%

SCHN00153113

Sin

...ucts, Inc.
& SHOP SUPPLIES

CUSTOMER PACKING LIST

TACOMA SCREW PRODUCTS
2797 NE COLUMBIA BLVD
PORTLAND, NE 97211

TIME [illegible] DATE 11/05/02
[illegible] [illegible]
[illegible] REFUND
[illegible]6901
[illegible] MASTERCARD
[illegible]
[illegible]

TOTAL -$40.01

[illegible]

P074227

Invoice# 1013460
Location# 19
Date 11/05/02
Page 2 OF 2

** Credit Memo **

Ship To:
OREGON CASH SALE
****** CASH CUSTOMER ******

CUSTOMER COPY

Cu[illegible] Reps:M Terms:CASH SALE
Or[illegible] Order#:P074227 Ship Via:WILL CALL - PORTLAND

Pro[illegible]t-Description	Open	Ship'd	B/O	Price	U/M	Tx	Extension
0561081 STEEL HEX FULL NUT 3/4"-10 ZINC	64	14	0	23.5105	C	F	12.45
0383141 STEEL THREADED ROD 7/8"-9 x 3 FT. ZINC	1	1	0	17.2200	EA	F	17.02
0382141 STEEL THREADED ROD 7/8"-9 x 3 FT. ZINC	1	1	0	8.5000	EA	F	8.51
0561091 STEEL HEX FULL NUT 7/8"-9 ZINC	64	24	0	15.0000	C	F	15.12
M/C XXXX-XXXX-XXXX-5555 EXP 05/05	-40.01						

[illegible]

Misc Total	Handling	Misc Chg	Tax	Freight	Dep-Amt	Dep-Appld	Invoice Total
-40.01	0.00	0.00	0.00	0.00	0.00	0.00	-40.01

Rec'd By X [signature]
(Full & legible Signature)

SCHN00153114

Tacoma Screw Products, Inc.

Since 1946

TACOMA SCREW PRODUCTS
3797 NE COLUMBIA BLVD
PORTLAND, OR 97211

SUPPLIES

CUSTOMER PACKING LIST

TIME 12:31 PM DATE 11/05/02
TERM# 00061142 MER# 000062305455991
TRAN TYPE SALE
#xxxxxxxxxxxxx6901
CARD TYPE MASTERCARD
SEQ # 008
TICKET # 0000007015
AUTH CODE 007358

PO
TR
27
PH
PC

131900

P074175

Invoice# 1012416
Location# 19
Date 11/05/02
Page 1 OF 2

TOTAL $334.64

Ship To:
OREGON CASH SALE
****** CASH CUSTOMER ******

MER ******

CUSTOMER COPY

Cust P/O: Rep:H Terms:CASH SALE
Ord-Date:11/05/02 Written:DW Order#:P074175 Ship Via:CUSTOMER PICK-UP

Product/Description	Open	Ship'd	B/O	Price	U/M	Tx	Extension
0111091 STEEL HEX CAP SCREW GR8 3/4"-10 x 3" PLAIN	48	48	0	119.7760	C		57.49
0121191 STEEL HEX CAP SCREW GR8 1"-8 x 5-1/2" PLAIN	12	12	0	388.1471	C		45.36
0111071 STEEL HEX CAP SCREW GR8 3/4"-10 x 2-1/2" PLAIN	6	6	0	106.2122	C		6.37
0600101 STEEL HEX FULL NUT GR8 1"-8 PLAIN	12	12	0	107.5204	C	F	10.90
0600081 STEEL HEX FULL NUT GR8 3/4"-10 PLAIN	54	54	0	37.7200	C	F	20.36
1681071 SS HEX FULL NUT 18-8 3/4"-10 COARSE	16	16	0	60.4000	C	F	9.06
1270121 SS THREADED ROD 18-8 3/4"-10 x 12 FT.	1	1	0	63.4000	EA	F	23.46

Continued

Rec'd By X
(Full & legible Signature)

SCHN00153115

Tacoma Screw Products, Inc.

FASTENERS • TOOLS • MAINTENANCE & SHOP SUPPLIES

Since 1946

CUSTOMER PACKING LIST

PORTLAND BRANCH
TACOMA SCREW PRODUCTS, INC.
2797 NE COLUMBIA BLVD.
PHONE (503) 846-5120
PORTLAND, OR 97211

1-1980
P074227

Invoice# 1013400
Location# 19
Date 11/05/02
Page 1 OF 1

Credit Card

191980
OREGON CASH SALE
****** CASH CUSTOMER ******

Ship To:
OREGON CASH SALE
****** CASH CUSTOMER ******

Cust P/O:
Ord-Date:11/05/02 Written:DK
Rep:H /
Order#:P074227
Terms:CASH SALE
Ship Via:WILL CALL - PORTLAND

Product/Description	Open	Shipped	B/O	Price	U/M	Tx	Extension
0111091 STEEL HEX CAP SCREW GR5 3/4"-10 x 3" PLAIN	-48	-48	0	119.7760	C		-57.49
0121101 STEEL HEX CAP SCREW GR8 1"-8 x 5-1/2" PLAIN	-12	-12	0	382.1471	C		-45.86
0111071 STEEL HEX CAP SCREW GR5 3/4"-10 x 2-1/2" PLAIN	-6	-6	0	106.2125	C		-6.37
0600101 STEEL HEX FULL NUT GR8 1"-8 PLAIN	-12	-12	0	107.5204	C	F	-12.90
0600081 STEEL HEX FULL NUT GR8 3/4"-10 PLAIN	-54	-54	0	37.7000	C	F	-20.36
0072071 STEEL HEX CAP SCREW GR5 3/4"-10 x 3" ZINC	48	48	0	92.6125	C		44.45
0072051 STEEL HEX CAP SCREW GR5 3/4"-10 x 2-1/2" ZINC	6	6	0	81.9300	C		4.92

Continued

Rec'd By X _____
(Full & legible Signature)

SCHN00153116

SCHN0015311 7

Tacoma Screw Products, Inc.

FASTENERS • TOOLS • MAINTENANCE & SHOP SUPPLIES

Since 1946

CUSTOMER PACKING LIST

PORTLAND BRANCH
TACOMA SCREW PRODUCTS, INC.
2797 NE COLUMBIA BLVD.
PHONE (503) 249-5100
PORTLAND, OR 97211

191500

P074175

Invoice# 101341a
Location# 19
Date 11/05/02
Page 2 OF 2

191500
OREGON CASH SALE
****** CASH CUSTOMER ******

Ship To:
OREGON CASH SALE
****** CASH CUSTOMER ******

Cust P/O:
Ord-Date:11/05/02 Written:DN

Reps:H /
Order#:P074175

Terms:CASH SALE
Ship Via:CUSTOMER PICK-UP

Product/Description	Open	Ship'd	B/O	Price	U/M	Tx	Extension
250510	6	6	0	16.6896	EA	F	100.14
POWERS 5462 ACE.S ADHESIVE ANCHORING SYSTEM 5.5 OZ. PUMP							
T/C XXXX-XXXX-XXXX-5555	334.84						
EXP 05/05							

Misc Total	Handling	Misc Chg	Tax	Freight	Dep-amt	Dep-Applid	Invoice Total
334.84	2.00	0.00	0.00	0.00	0.00	0.00	334.84

Rec'd By X _____
(Full & legible Signature)

F O L I

M INN
Y CRT N.
OR 97303
8-0515

COMP:

RT:10-22-(
==========

Da
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VSC

Subt
Tip:

Tota

Signa

** To
** Bo

MARS MEADOWS RESTAUR
[illegible] N [illegible]
PORTLAND, OR 97217

DATCH: 835
[illegible]
73831579

SERVER: 12

[illegible]
[illegible]
[illegible]
[illegible]

AMOUNT $24.50
3

TIP
3/50

TOTAL

[illegible] 10/03

Crew 1/2016

[illegible] ACKNOWLEDGES RECEIPT OF GOODS AND/OR SERVICES IN THE AMOUNT OF THE TOTAL SHOWN HEREON AND AGREES TO PERFORM THE OBLIGATIONS SET FORTH BY THE CARDMEMBER'S AGREEMENT WITH THE ISSUER

X

[illegible] BOTTOM COPY-CUSTOMER

SCHN00153118

Pump Vault
Additional Items

Description	Unit	Rate	Subtotal
Technicians	2	$55.00	$110.00
Ductile Iron Couplers & Uniflange Adapters with Gaskets	1	$500.25	$500.25
		Total:	$610.25

SCHN00153120

HDPE Trench
Additional Items

Description	Unit	Rate	Subtotal
Technicians	16	$55.00	$880.00
Backhoe, 1 day	1	$175.00	$175.00
Pea Gravel	1	$500.25	$500.25
		Total:	$1,555.25

Silt Fence
Additional Items

?

Description	Unit	Rate	Subtotal
Technicians	16	$55.00	$880.00
Silt Fence	1	$189.34	$189.34
		Total:	$1,069.34

600 FT IN BID

Cleanout Y
Additional Items

Description	Unit	Rate	Subtotal
Technicians	8	$55.00	$440.00
Clean-out "Y"	1	$389.71	$389.71
Flange Adapters	1	$99.57	$99.57
Blind Flange	1	$90.85	$90.85
		Total:	$1,020.13

HDPE Slurry
Additional Items

Description	Unit	Rate	Subtotal
Technicians	4	$55.00	~~$220.00~~
Concrete Slurry (10 cy)	1	$759.00	$759.00
		Total:	$979.00

Outfall Pipe Lining
Additional Items

Description	Unit	Rate	Subtotal
Technicians	16.5	$55.00	$907.50
HDPE Pipe, 200 ft	1	$1,648.20	$1,648.20
Fusion Welder	1	$575.00	$575.00
Trackhoe	1	$350.00	$350.00
		Total:	$3,480.70

Electrical Trench
Additional Items

Description	Unit	Rate	Subtotal
Technicians	45.5	$55.00	$2,502.50
Backhoe, 2 days	2	$175.00	$350.00
Steel Plates	1	$972.33	$972.33
Light Plant	1	$156.40	$156.40
Coring	1	$115.00	$115.00
Compactor	1	$75.12	$75.12
Gravel	1	$479.00	$479.00
		Total:	$4,650.35

Groundwater Issues
Additional Items

? ON DWGS

1. Before water was encountered, discovered CMP and PVC pipe.
2. Encountered water at 14.5 ft bgs. Was told by Engineer that it was perched and would go away.
3. Installing and maintaining pumps, sumps and alternate outfalls.
4. Filter Fabric
5. Gravel
6. ~~Original schedule to start at 1600, but alternated between 1600 & 2000. Some days shredder worked overtime without warning.~~

Description	Unit	Rate	Subtotal
Technicians	148	$55.00	$8,140.00
Backhoe, 2 weeks	0.5	$2,242.00	$1,121.00
Trackhoe, 2 weeks	0.5	$3,910.00	$1,955.00
Pumps	1	$230.00	$230.00
Filter Fabric	1	$42.55	$42.55
Gravel	1	$299.23	$299.23
		Total:	$11,787.78

- 50%

$5,893.89

West End
Additional Items

1. Excavated Vault hole 5-feet too deep, then had to backfill and compact.
2. Vaults and OWS moved closer to the adjacent fence. — SIMPLIFICATION
3. Difficulty find outfall pipe. ?
4. Encountered and removed old pipes and catch basin.
5. Encountered retaining wall not on drawings. ?
6. Original schedule to start at 1600, but alternated between 1600 & 2000. Some days shredder worked overtime without warning. } SHREDDER DOWN 3 WKS PRIOR

Description	Unit	Rate	Subtotal
Technicians	134.5	$55.00	$7,397.50
Backhoe, 2 weeks	0.5	$2,242.00	$1,121.00
Trackhoe, 2 weeks	0.5	$3,910.00	$1,955.00
		Total:	$10,473.50

- 25%

7,855.13

WASTE MANAGEMENT

Columbia Ridge, Hillsboro, Riverbend, Graham Road, Capitol, Wenatchee

Profile Number: _____
Expiration Date: _____

WASTE PROFILE SHEET
TERMS & CONDITIONS

Service Agreement on File? ☐ Yes ☐ No

This form is to be used to comply with the requirements of governmental waste screening criteria.

Profile Addendum Attached? ☐ Yes ☐ No

A. Waste Generator Information

1 Generator/Site Name: SCHNITZER
2. SIC Code: 5093
3 Site Address: 12005 N BURGARD
4. Site City: PORTLAND
5 Site State: OR
7. Zip Code:
6. Site Country: MULTNOMAH
8. Generator USEPA/Federal ID#:
9. Site Phone: 503 224-9900
10 Customer Name: STRATUS CORPORATION
11. Customer Phone: 503 985-7912
12 Customer Contact: SCOTT FLAHERTY
13 Customer FAX: 503 985-1953

B. Waste Stream and Billing Information

1 Waste Description, Category: 10W
3. Billing Address: 39515 SW MARTLEY RD. GASTON, OR 97119
2 State Waste Code:
4 Process Generating Waste: DRILLING
5 Transporter/Transfer Station: STRATUS CORP
6. Shipping Method: DUMP TRUCK
7. Estimated Quantity (Weight & Vol.): 8-TONS per ☑ Job ☐ Year ☐ Other
8. Delivery Date(s):
9 Personal Protective Equipment Requirements: NONE
10. Is this a US Dept. of Transportation (USDOT) Hazardous Material? ☐ Yes ☑ No (If no, skip 10, 11 and 12)
11. Reportable Quantity:
12 Hazard Class / I.D #:
13. Shipping Name:

☐ *Check if additional information is attached. Indicate the number of attached pages:* _____

C. Generator's Certification

	Yes	No	
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by USEPA, Canadian, Mexican, State, or Provincial regulation?	☐	☑	
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or *regulated concentrations of Polychlorinated Biphenyls (PCBs)?*	☐	☑	
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	☑	☐	
4. Has all relevant information within the possession of the Generator and Customer regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	☑	☐	
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules?	☑	☐	☐ N/A
6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	☑	☐	

D. WM Management's Decision

1 Management Method:
2. Designated Facility:
3. Hours of acceptance: ☐ N/A
4. Precautions, Special Handling Procedures, or Limitations on Approval:

Generic Approval: ☐ Yes ☐ No
Special Waste Decision: ☐ Approved ☐ Disapproved

Sales Person: _____ Date: _____ Technical Manager: _____ Date: _____

GENERATOR AND CUSTOMER MUST READ AND SIGN REVERSE HEREOF INITIAL _____ INITIAL _____

TERMS AND CONDITIONS

1. **ACCEPTABLE WASTE.** Customer shall deliver and Company shall accept for disposal or other management purpose only Acceptable Waste. As used herein, "Customer" shall mean both Customer and Generator listed on the reverse hereof. Customer shall deliver the full quantity of Acceptable Waste generated and/or handled by Customer as estimated on the reverse hereof. Acceptable Waste means and includes only such waste as is described on the reverse and which is approved and permitted for management at the Designated Facility listed on the reverse, and shall not include any Nonconforming Waste. As used herein, Nonconforming Waste means waste that: (a) is not in conformance with the description and/or estimated quantity of the waste set forth on the reverse; (b) is or contains any infectious waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law, except as stated on the reverse; or (c) is prohibited from being received, managed or disposed of at the Designated Facility by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition;

2. **REPRESENTATIONS & WARRANTIES.** Customer represents and warrants that: (a) the description of the waste set forth on the reverse hereof is true and correct in all material respects; (b) all waste delivered to the Designated Facility by Customer shall be Acceptable Waste as defined above and shall not be or contain Nonconforming Waste; (c) Customer shall, and shall cause any carrier with which it contracts to, handle and transport the waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations; and (d) Customer has advised its drivers of Company's prohibition on delivery of Nonconforming Waste, of the definitions and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Acceptable Waste herein. Company represents and warrants that it shall manage the Acceptable Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations.

3. **WASTE REJECTION.** Company may inspect, analyze or test any waste delivered by Customer and/or may reject, refuse or revoke acceptance of any waste if, in the opinion of Company, the waste or tender of delivery fails to conform to or Customer fails to comply with the terms of this Agreement, including by delivery of Nonconforming Waste. Company may also reject any waste which (a) Company reasonably believes would, as a result of or upon disposal or other management, be a violation of local, state or federal law, regulation, ordinance or permits, including land use restrictions or conditions applicable to the Designated Facility; or (b) in Company's opinion would present a significant risk to human health or the environment, cause a nuisance or otherwise create or expose Company or Customer to potential liability. Company also shall have the right to refuse to accept or to reject any Acceptable Waste in the event of Customer's failure to pay fees owed by Customer hereunder. In the event Company rejects or revokes acceptance of waste hereunder, Customer shall, at its sole cost, immediately remove or arrange to have the rejected waste removed from Company's control or property. Customer shall pay and/or reimburse Company for any and all costs, damages and/or fines incurred as a result of or relating to Customer's tender or delivery of Nonconforming Waste or other failure to comply or conform to this Agreement, including costs of inspection, testing and analysis.

4. **SPECIAL HANDLING; TITLE.** If Company elects, in its sole discretion, to handle, rather than reject, Nonconforming Waste, Company shall have the right to manage such Nonconforming Waste in the manner deemed most appropriate by Company given the characteristics of the Nonconforming Waste. Company may assess and Customer shall pay additional fees associated with delivery of Nonconforming Waste, including, but not limited to, special handling or disposal charges, and costs associated with different quantities of waste, different delivery dates, modifications in operations, specialized equipment, and other operational, environmental, health, safety or regulatory requirements. Title to and ownership of Acceptable Waste shall transfer to Company upon its final acceptance of Acceptable Waste. Title to, ownership of and liability for Nonconforming Waste shall at all times remain with Customer. Revocation of acceptance by Company shall operate to re-vest all incidents of ownership in Customer.

5. **INDEMNITY.** Each party hereto (the "Indemnitor") hereby agrees to indemnify, hold harmless and defend the other party, and its owners, officers, directors, employees and agents (collectively, the "Indemnitees"), from and against any and all liabilities, penalties, fines, forfeitures, fees, demands, claims, causes of action, suits, judgments and costs and expenses incidental thereto, including attorneys' fees (collectively, "Damages"), which any or all of the Indemnitees may hereafter suffer, incur, be responsible for or pay out, including for personal injuries, property damage, or contamination of or adverse effects on the environment, to the extent caused by, or arising from or in connection with the breach of any representations or warranties of the Indemnitor set forth in this Agreement, or any negligent actions or omissions or willful misconduct of the Indemnitor, its employees, officers, owners, directors or agents, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., as amended. Such indemnity shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitees or their employees, officers, owners, directors or agents. The indemnification obligation hereunder shall arise only in excess of any available and collectible insurance proceeds and the Indemnitor shall be liable hereunder to pay only its share of the amount of Damages, if any, that exceeds the total amount that all insurance has paid for the Damages, plus the total of all deductible and self-insured expenses paid under all insurance policies. The obligations in this Section 5 shall survive the performance and termination of this Agreement.

6. **UNCONTROLLABLE CIRCUMSTANCES; TERMINATION.** Except for the obligation to pay fees hereunder, the performance of this Agreement may be discontinued or temporarily suspended by either party, and neither party shall be deemed to be in breach of this Agreement, in the event performance is prevented by a cause or causes beyond the reasonable control of the affected party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or sabotage, governmental laws (including nuisance), permit conditions, regulations, restrictions (including land use), condition of the waste, injunction or actions or omissions of third party transporters or other contractors, suppliers or vendors. Company may immediately terminate management services hereunder upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement, in which case, Customer shall be liable for and shall pay to Company all costs and losses incurred by Company as a result of or relating to any such termination.

7. **MISCELLANEOUS.** This Agreement shall be governed by the laws of the state in which the Designated Facility is located. Every provision of this Agreement shall be severable. This Agreement represents the entire understanding and Agreement between the parties relating to the management of waste, except that, if the parties, or their parent companies, are parties to a national service agreement, the terms of such national service agreement shall govern over any inconsistent terms in this Agreement. No representations, statements or Agreements, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. No waiver by either party of any one or more defaults or breaches by the other in the performance of this Agreement shall operate or be construed as a waiver of any future defaults or breaches. Customer may not assign this Agreement without the prior written consent of Company. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns.

THIS IS A LEGALLY BINDING CONTRACT. EACH UNDERSIGNED INDIVIDUAL ACKNOWLEDGES THAT HE/SHE HAS READ AND UNDERSTANDS THE TERMS AND CONDITIONS OF THIS AGREEMENT SET FORTH ABOVE AND ON THE REVERSE HEREOF AND THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF CUSTOMER/GENERATOR AND COMPANY. BY SIGNING BELOW, CUSTOMER AND GENERATOR INDICATE A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS AND CERTIFY THE TRUTH OF THE INFORMATION ON THE REVERSE HEREOF. AGREED TO AS OF THE DATES BELOW.

CUSTOMER:	GENERATOR:	COMPANY:
(AUTHORIZED SIGNATURE)	(AUTHORIZED SIGNATURE)	(AUTHORIZED SIGNATURE)
SCOTT FLAHERTY - PRESIDENT	MATHEW CUSMA - ENV. ADMIN.	
(NAME, TITLE)	(NAME, TITLE)	(NAME, TITLE)
DATE: 5/15/02	DATE: 16 MAY 02	DATE:

106447 v04.SE (2@4V04I.DOC) (#106447 v4 - Landfill Services Waste Profile and Terms)
11/21/00 6:00 PM

STRATUS CORPORATION

39515 SW Hartley Rd, Gaston, OR 97119 Phone (503) 985-7912 Fax (503) 985-1953

TOTAL PAGES INCLUDING THIS SHEET: 3

FAX COVER SHEET

DATE: 15-May-02
TO: Mathew Cusma
FROM: Scott Flaherty
REGARDING:

COMPANY: Schnitzer Steel Products, Co.
PHONE: 503 224-9900
FAX: 503 286-6948

MESSAGE: We are ready to dispose of the soil drums located by your office. If you would like the waste to go to Hillsboro Landfill, sign the bottom portion of the last page (as GENERATOR) and fax back to me.
If you want the waste to go to TPS, let me know.

Please call if you have any questions or comments.

Thank you,
Scott Flaherty

SCHNITZER STEEL INDUSTRIES, INC.
3200 NW Yeon Avenue
P.O. Box 10047
Portland, Oregon 97296-0047
Phone: (503) 224-9900
Fax: (503) 323-2804
Telex: 289875

Fax

To:	Scott Flaherty	**From:**	Mat Cusma
Fax:	503/985-1953	**Pages:**	3
Phone:		**Date:**	16 May 02
Re:	IDW Profile	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Thanks.

SCHNITZER STEEL PRODUCTS CO.

12005 N Burgard Road, Portland, Oregon 97203
P.O. Box 10047, Portland, Oregon 97296-0047
(503) 224-9900 FAX (503) 286-6948

Fax Transmittal

9 Total Pages

To: Scott, Stratus Corp. 503/985-1953

From: Mathew Cusma

Date: March 8, 2002

Re: IDW Disposal

Scott,

I need to arrange for the proper disposal of 27 55-gallon drums of Investigation Derived Waste (purged groundwater and drilling spoils). Following are tabulated analytical results for the samples that were collected coincident with the generation of the IDW. I can also provide you with the analytical reports, if needed.

I would appreciate a cost estimate and schedule from Stratus for providing these services. Please let me know if you have any questions or need additional information.

MATHEW CUSMA

Table 5
Chemical Concentrations in Groundwater Samples
Petroleum Hydrocarbons
Burgard Industrial Park
All results in µg/l

Probe/Well	Date	Gasoline	Diesel	Heavy oil
MW01	1/28/2002	250 U	630 U	630 U
MW02	1/28/2002	250 U	630 U	630 U
MW03	1/27/2002	250 U	630 U	630 U
MW04	1/27/2002	250 U	630 U	630 U
MW05	1/27/2002	250 U	630 U	630 U
MW06	1/28/2002	250 U	630 U	630 U
MW07	1/28/2002	-	-	-
PP02	12/18/2001	-	-	-
PP03	12/18/2001	-	-	-
PP04	12/18/2001	-	-	-
PP05	12/18/2001	-	-	-
PW01	1/28/2002	-	-	-
PW03	1/28/2002	-	-	-
PW06	1/27/2002	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

Table 6
Chemical Concentrations In Groundwater Samples
Volatile Organic Compounds
Burgard Industrial Park
All results in µg/l

Probe/Well	Date	cis-1,2,-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
MW01	1/28/2002	9.13	32.7	1 U	4.5	1.23
MW02	1/28/2002	2.78	6.68	1 U	8.06	1 U
MW03	1/27/2002	1 U	1 U	1 U	1 U	1 U
MW04	1/27/2002	1 U	1 U	1 U	1 U	1 U
MW05	1/27/2002	1 U	1 U	1 U	1 U	1 U
MW06	1/28/2002	1 U	1 U	1 U	1 U	1 U
MW07	1/28/2002	1 U	1.91	1 U	1 U	1 U
PP02	12/18/2001	1 U	1 U	1 U	1 U	1 U
PP03	12/18/2001	1 U	1 U	1 U	1 U	1 U
PP04	12/18/2001	1 U	1 U	1.23	1 U	1 U
PP05	12/18/2001	1 U	1 U	1 U	1 U	1 U
PW01	1/28/2002	1 U	1 U	1 U	1 U	1 U
PW03	1/28/2002	1 U	1.67	1 U	1.7	1 U
PW06	1/27/2002	1 U	1 U	1 U	1 U	1 U

U - Not detected at noted reporting limit
"-" - Not analyzed

Table 7
Chemical Concentrations in Groundwater Samples
PAHs and PCBs
Burgard Industrial Park
All results in µg/l

Probe/Well	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	3,4-Methylphenol	Naphthalene	Phenanthrene	Pyrene	PCBs
MW01	1/28/2002	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	-	0.1 U	0.1 U	-	-
MW02	1/28/2002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	0.5 U
MW03	1/27/2002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	18.4	2 U	5 U	5 U	-
MW04	1/27/2002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-
MW05	1/27/2002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-
MW06	1/28/2002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	-
MW07	1/28/2002	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	-	0.1 U	0.1 U	0.1 U	-
PP02	12/18/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03	12/18/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04	12/18/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05	12/18/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW01	1/28/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-
PW03	1/28/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-
PW06	1/27/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	2 U	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00153342

Table 8
Chemical Concentrations In Groundwater Samples
Total Metals
Burgard Industrial Park
All results in µg/l

Probe/Well	Date	Total Antimony	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Copper	Total Lead	Ttotal Mercury	Total Nickel	Total Zinc
MW01	1/28/2002	-	-	-	-	-	-	-	-	-	-
MW02	1/28/2002	1.0 U	1.1	23.3	1.0 U	2.0	2.0 U	1.0 U	0.2 U	2.0 U	10.6
MW03	1/27/2002	1.0 U	30.8	148.0	1.0 U	1.6	2.0 U	1.0 U	0.2	5.8	7.1
MW04	1/27/2002	1.0 U	1.9	47.2	1.0 U	1.3	2.0 U	1.0 U	0.2 U	12.3	5.2
MW05	1/27/2002	1.0 U	1.0 U	13.0	1.0 U	1.6	2.3	1.0 U	0.2 U	2.3	11.2
MW06	1/28/2002	1.0 U	1.0 U	33.1	1.0 U	1.6	2.0 U	1.0 U	0.2 U	8.6	8.8
MW07	1/28/2002	1.0 U	1.2	64.7	1.0 U	1.8	2.0 U	1.0 U	0.2 U	4.9	5.0 U
PP02	12/18/2001	-	-	-	-	-	-	-	-	-	-
PP03	12/18/2001	-	-	-	-	-	-	-	-	-	-
PP04	12/18/2001	-	-	-	-	-	-	-	-	-	-
PP05	12/18/2001	-	-	-	-	-	-	-	-	-	-
PW01	1/28/2002	-	-	-	-	-	-	-	-	-	-
PW03	1/28/2002	-	-	-	-	-	-	-	-	-	-
PW06	1/27/2002	-	-	-	-	-	-	-	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

Table 1
Chemical Concentrations in Soil Samples - Petroleum Hydrocarbons
Burgard Induatrial Park
All results in mg/kg

Sample	Location	Date	Sample Depth (ft)	Gasoline	Diesel	Heavy oil
CBS07	Upgradient catch basin - NW P	1/28/2002	0.5	20 U	50 U	2260
MW01-07	Former NW Oil Tanks	1/3/2002	7.0	20 U	50 U	274
MW01-07D	Former NW Oil Tanks	1/3/2002	7.0	20 U	25 U	210
MW01-12	Former NW Oil Tanks	1/3/2002	12.0	20 U	25 U	208
MW01-18	Former NW Oil Tanks	1/3/2002	18.0	20 U	50 U	100 U
MW01-18D	Former NW Oil Tanks	1/3/2002	18.0	20 U	50 U	100 U
MW02-07	Shoreline, north end of site	1/4/2002	7.0	20 U	50 U	100 U
MW02-12	Shoreline, north end of site	1/4/2002	12.0	20 U	289	415
MW02-18	Shoreline, north end of site	1/4/2002	18.0	20 U	50 U	388
MW03-07	Shoreline, middle of site	1/4/2002	7.0	20 U	50 U	100 U
MW03-12	Shoreline, middle of site	1/4/2002	12.0	20 U	50 U	100 U
MW03-12D	Shoreline, middle of site	1/4/2002	12.0	20 U	50 U	100 U
MW03-18	Shoreline, middle of site	1/4/2002	18.0	20 U	50 U	100 U
MW04-07	Shoreline, middle of site	1/5/2002	7.0	20 U	117	343
MW04-12	Shoreline, middle of site	1/5/2002	12.0	20 U	50 U	100 U
MW04-18	Shoreline, middle of site	1/5/2002	18.0	20 U	50 U	100 U
MW05-08	Shoreline, southend of site	1/13/2002	8.0	20 U	50 U	100 U
MW06-07	Outfall 1 plug area	1/5/2002	7.0	20 U	50 U	100 U
MW06-12	Outfall 1 plug area	1/5/2002	12.0	20 U	50 U	100 U
MW07-02	Southeast area	1/3/2002	2.0	20 U	-	-
MW07-07	Southeast area	1/3/2002	7.0	20 U	-	-
OFS07	Outfall 7 at north end of site	1/28/2002	0.5	-	-	-
PP01-03	ASR staging area	12/18/2001	3.0	20 U	89.9	146
PP01-06	ASR staging area	12/18/2001	6.0	20 U	169	230
PP01-09	ASR staging area	12/18/2001	9.0	20 U	25 U	112
PP01-13	ASR staging area	12/18/2001	13.0	20 U	50 U	100 U
PP02-01.5	WMW compressor	12/18/2001	1.5	20 U	50 U	100 U
PP02-05	WMW compressor	12/18/2001	5.0	20 U	50 U	100 U
PP02-09	WMW compressor	12/18/2002	9.0	-	-	-
PP02-13	WMW compressor	12/18/2002	13.0	-	-	-
PP02-17	WMW compressor	12/18/2002	17.0	-	-	-
PP03-01	Boydston oil storage area	12/18/2001	1.0	20 U	50 U	100 U
PP03-05.5	Boydston oil storage area	12/18/2001	5.5	20 U	50 U	100 U
PP04-01	PBM wash pad	1/28/2002	1.0	20 U	50 U	1520
PP04-01A	PBM wash pad	2/18/2002	1.0	-	-	-
PP04-05	PBM wash pad	1/28/2002	5.0	20 U	50 U	100 U
PP04-13	PBM wash pad	12/18/2001	13.0	20 U	50 U	100 U
PP05-06	Former NW Oil Tanks	12/18/2001	6.0	20 U	50 U	100 U
PP05-09	Former NW Oil Tanks	12/18/2001	9.0	20 U	50 U	100 U
PP05-13	Former NW Oil Tanks	12/18/2001	13.0	20 U	50 U	100 U
PP05-17	Former NW Oil Tanks	12/18/2001	17.0	20 U	50 U	100 U

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00153344

Table 2
Chemical Concentrations in Soil Samples
Volatile Organic Compounds
Burgard Induatrial Park
All results in mg/kg

Sample	Location	Date	Sample Depth (ft)	cis-1,2,-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
CBS07	Upgradient catch basin - NW Pi	1/28/2002	0.5	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07	Former NW Oil Tanks	1/3/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-07D	Former NW Oil Tanks	1/3/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-12	Former NW Oil Tanks	1/3/2002	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18	Former NW Oil Tanks	1/3/2002	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW01-18D	Former NW Oil Tanks	1/3/2002	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-07	Shoreline, north end of site	1/4/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-12	Shoreline, north end of site	1/4/2002	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW02-18	Shoreline, north end of site	1/4/2002	18.0	0.1 U	0.111	0.1 U	0.1 U
MW03-07	Shoreline, middle of site	1/4/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12	Shoreline, middle of site	1/4/2002	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-12D	Shoreline, middle of site	1/4/2002	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW03-18	Shoreline, middle of site	1/4/2002	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-07	Shoreline, middle of site	1/5/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-12	Shoreline, middle of site	1/5/2002	12.0	0.1 U	0.1 U	0.1 U	0.1 U
MW04-18	Shoreline, middle of site	1/5/2002	18.0	0.1 U	0.1 U	0.1 U	0.1 U
MW05-08	Shoreline, southend of site	1/13/2002	8.0	0.1 U	0.1 U	0.1 U	0.1 U
MW06-07	Outfall 1 plug area	1/5/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
MW06-12	Outfall 1 plug area	1/5/2002	12.0	-	-	-	-
MW07-02	Southeast area	1/3/2002	2.0	0.1 U	0.1 U	0.1 U	0.1 U
MW07-07	Southeast area	1/3/2002	7.0	0.1 U	0.1 U	0.1 U	0.1 U
OFS07	Outfall 7 at north end of site	1/28/2002	0.5	-	-	-	-
PP01-03	ASR staging area	12/18/2001	3.0	0.1 U	0.1 U	0.1 U	0.1 U
PP01-06	ASR staging area	12/18/2001	6.0	0.1 U	0.1 U	0.1 U	0.1 U
PP01-09	ASR staging area	12/18/2001	9.0	-	-	-	-
PP01-13	ASR staging area	12/18/2001	13.0	-	-	-	-
PP02-01.5	WMW compressor	12/18/2001	1.5	-	-	-	-
PP02-05	WMW compressor	12/18/2001	5.0	-	-	-	-
PP02-09	WMW compressor	12/18/2002	9.0	-	-	-	-
PP02-13	WMW compressor	12/18/2002	13.0	-	-	-	-
PP02-17	WMW compressor	12/18/2002	17.0	-	-	-	-
PP03-01	Boydston oil storage area	12/18/2001	1.0	-	-	-	-
PP03-05.5	Boydston oil storage area	12/18/2001	5.5	-	-	-	-
PP04-01	PBM wash pad	1/28/2002	1.0	-	-	-	-
PP04-01A	PBM wash pad	2/18/2002	1.0	-	-	-	-
PP04-05	PBM wash pad	1/28/2002	5.0	-	-	-	-
PP04-13	PBM wash pad	12/18/2001	13.0	-	-	-	-
PP05-06	Former NW Oil Tanks	12/18/2001	6.0	-	-	-	-
PP05-09	Former NW Oil Tanks	12/18/2001	9.0	-	-	-	-
PP05-13	Former NW Oil Tanks	12/18/2001	13.0	-	-	-	-
PP05-17	Former NW Oil Tanks	12/18/2001	17.0	-	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00153345

Table 3
Chemical Concentrations in Soil Samples
PAHs and PCBs
Burgard Industrial Park
All results in mg/kg

Sample	Location	Date	Sample Depth (ft)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	3,4-Methylphenol	Naphthalene	Phenanthrene	Pyrene	LPAHs	HPAHs	Total PAHs	PCBs
CBS07	Upgradient catch basin - NW P	1/28/2002	0.5	0.181	0.067 U	0.067 U	0.087 U	0.067 U	0.087 U	0.067 U	0.067 U	0.067 U	0.067 U	0.081	0.301	0.067 U	-	0.335 U	0.491	0.09	1.208	0.439	1.648	-
MW01-07	Former NW Oil Tanks	1/3/2002	7.0	0.027 U	0.027 U	0.027 U	0.036	0.098	0.072	0.139	0.044	0.053	0.027 U	0.041	0.027 U	0.089	-	0.027 U	0.027 U	0.066	0.080	0.649	0.729	-
MW01-07D	Former NW Oil Tanks	1/3/2002	7.0	0.027 U	0.027 U	0.027 U	0.027 U	0.04	0.051	0.049	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.03	-	0.027 U	0.027 U	0.032	0.08	0.269	0.35	-
MW01-12	Former NW Oil Tanks	1/3/2002	12.0	0.027 U	0.027 U	0.027 U	0.028	0.055	0.035	0.06	0.027 U	0.033	0.027 U	0.034	0.027 U	0.039	-	0.027 U	0.027 U	0.059	0.08	0.369	0.449	-
MW01-18	Former NW Oil Tanks	1/3/2002	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-18D	Former NW Oil Tanks	1/3/2002	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02-07	Shoreline, north end of site	1/4/2002	7.0	0.33 U	0.33 U	0.33 U	1.66	1.18	0.979	0.644	1.03	1.81	0.33 U	2.6	0.33 U	0.613	0.33 U	0.33 U	0.383	2.7	1.208	13.38	14.59	-
MW02-12	Shoreline, north end of site	1/4/2002	12.0	0.33 U	0.33 U	0.33 U	0.33 U	0.504	0.334	0.414	0.33 U	0.444	0.33 U	0.671	0.33 U	0.332	0.33 U	0.33 U	0.33 U	0.857	0.99	4.051	5.041	0.922
MW02-18	Shoreline, north end of site	1/4/2002	18.0	0.33 U	0.33 U	0.575	2.14	2.46	2.2	1.73	1.47	2.73	0.353	4.88	0.33 U	1.47	0.33 U	0.33 U	3.13	5.04	4.365	24.47	28.84	0.466
MW03-07	Shoreline, middle of site	1/4/2002	7.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	0.067 U
MW03-12	Shoreline, middle of site	1/4/2002	12.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW03-12D	Shoreline, middle of site	1/4/2002	12.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW03-18	Shoreline, middle of site	1/4/2002	18.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW04-07	Shoreline, middle of site	1/5/2002	7.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	0.067 U
MW04-12	Shoreline, middle of site	1/5/2002	12.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW04-18	Shoreline, middle of site	1/5/2002	18.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW05-08	Shoreline, southend of site	1/13/2002	8.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	0.067 U
MW08-07	Outfall 1 plug area	1/5/2002	7.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.33 U	0.33 U	0.925	1.65	2.575	-
MW08-12	Outfall 1 plug area	1/5/2002	12.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	0.067 U
MW07-02	Southeast area	1/3/2002	2.0	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	-	0.027 U	0.027 U	0.027 U	0.08	0.134	0.214	0.067 U
MW07-07	Southeast area	1/3/2002	7.0	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	-	0.013 U	0.013 U	0.013 U	0.04	0.067	0.107	0.067 U
OFS07	Outfall 7 at north end of site	1/28/2002	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01-03	ASR staging area	12/18/2001	3.0	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	2.25	1.65 U	1.65 U	1.65 U	1.65 U	2.74	2.68	6.865	11.53	18.4	0.067 U
PP01-08	ASR staging area	12/18/2001	8.0	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.765	0.66 U	0.66 U	1.65	0.66 U	0.66 U	0.998	1.98	4.402	6.382	0.067 U
PP01-09	ASR staging area	12/18/2001	9.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	-
PP01-13	ASR staging area	12/18/2001	13.0	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.99	1.65	2.64	-
PP02-01.5	WMW compressor	12/18/2001	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02-05	WMW compressor	12/18/2001	5.0	0.013 U	0.013 U	0.013 U	0.104	0.161	0.118	0.199	0.105	0.131	0.026	0.18	0.013 U	0.135	-	0.013 U	0.032	0.276	0.066	1.433	1.499	0.067 U
PP02-09	WMW compressor	12/18/2002	9.0	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	-	0.013 U	0.013 U	0.013 U	0.04	0.067	0.107	-
PP02-13	WMW compressor	12/18/2002	13.0	0.013 U	0.013 U	0.013 U	0.015	0.022	0.013	0.023	0.016	0.019	0.013 U	0.043	0.013 U	0.016	-	0.013 U	0.031	0.057	0.064	0.232	0.296	-
PP02-17	WMW compressor	12/18/2002	17.0	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	-	0.013 U	0.013 U	0.013 U	0.04	0.067	0.107	-
PP03-01	Boydston oil storage area	12/18/2001	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03-05.5	Boydston oil storage area	12/18/2001	5.5	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	-	0.013 U	0.013 U	0.013 U	0.04	0.067	0.107	0.067 U
PP04-01	PBM wash pad	1/28/2002	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04-01A	PBM wash pad	2/18/2002	1.0	0.134 U	0.134 U	0.134 U	0.48	0.742	0.73	0.975	0.684	0.892	0.167	0.782	0.134 U	0.733	-	0.134 U	0.295	0.952	0.63	6.957	7.587	-
PP04-05	PBM wash pad	1/28/2002	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP04-13	PBM wash pad	12/18/2001	13.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05-06	Former NW Oil Tanks	12/18/2001	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05-09	Former NW Oil Tanks	12/18/2001	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05-13	Former NW Oil Tanks	12/18/2001	13.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP05-17	Former NW Oil Tanks	12/18/2001	17.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00153346

Table 4
Chemical Concentrations in Soil Samples - Metals
Burgard Induatrial Park
All results in mg/kg

Sample	Location	Date	Sample Depth (ft)	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
CBS07	Upgradient catch basin - NW Pi	1/28/2002	0.5	3.48	8.6	271	2.95	894	331	369	0.431	106	2070
MW01-07	Former NW Oil Tanks	1/3/2002	7.0	-	-	-	-	-	-	-	-	-	-
MW01-07D	Former NW Oil Tanks	1/3/2002	7.0	-	-	-	-	-	-	-	-	-	-
MW01-12	Former NW Oil Tanks	1/3/2002	12.0	-	-	-	-	-	-	-	-	-	-
MW01-18	Former NW Oil Tanks	1/3/2002	18.0	-	-	-	-	-	-	-	-	-	-
MW01-18D	Former NW Oil Tanks	1/3/2002	18.0	-	-	-	-	-	-	-	-	-	-
MW02-07	Shoreline, north end of site	1/4/2002	7.0	0.5 U	2.71	89.6	0.5 U	15.5	20.1	11.2	0.1 U	20	66.8
MW02-12	Shoreline, north end of site	1/4/2002	12.0	0.944	3.42	142	0.5 U	22	133	529	0.1 U	26	432
MW02-18	Shoreline, north end of site	1/4/2002	18.0	1.43	6.83	162	0.808	38.5	84	300	0.1 U	31	543
MW03-07	Shoreline, middle of site	1/4/2002	7.0	0.5 U	2.04	95.7	0.5 U	13.5	13.3	2.45	0.1 U	18.5	35.6
MW03-12	Shoreline, middle of site	1/4/2002	12.0	0.5 U	4.25	209	0.5 U	20.7	21.3	4.39	0.1 U	21.7	50.3
MW03-12D	Shoreline, middle of site	1/4/2002	12.0	0.5 U	3.43	191	0.5 U	18	19	3.92	0.1 U	20.5	49.5
MW03-18	Shoreline, middle of site	1/4/2002	18.0	0.5 U	2.72	92.5	0.5 U	13.6	14.6	3.21	0.1 U	18	45.5
MW04-07	Shoreline, middle of site	1/5/2002	7.0	0.5 U	2.76	108	0.5 U	20.1	28.8	21.4	0.228	29.7	106
MW04-12	Shoreline, middle of site	1/5/2002	12.0	0.5 U	2.74	89.7	0.5 U	13.2	18.6	4.31	0.1 U	17.9	48.3
MW04-18	Shoreline, middle of site	1/5/2002	18.0	0.5 U	2.72	92.2	0.5 U	16.3	16	2.9	0.1 U	21	44.4
MW05-08	Shoreline, southend of site	1/13/2002	8.0	0.5 U	2.44	70.6	0.5 U	11.3	13.9	4.38	0.1 U	15.4	46.5
MW06-07	Outfall 1 plug area	1/5/2002	7.0	0.5 U	3.56	87.6	0.5 U	17.9	15.6	2.85	0.1 U	25.6	46
MW06-12	Outfall 1 plug area	1/5/2002	12.0	0.5 U	2.73	104	0.5 U	47.2	29.5	7.01	0.1 U	32	67.4
MW07-02	Southeast area	1/3/2002	2.0	0.5 U	3.93	106	0.5 U	15.7	21.5	366	0.1 U	16.6	69.2
MW07-07	Southeast area	1/3/2002	7.0	0.5 U	3.64	105	0.5 U	13.1	16.4	6.22	0.1 U	14.7	54.7
OFS07	Outfall 7 at north end of site	1/28/2002	0.5	20	11.8	184	3.19	117	660	493	0.769	78.9	691
PP01-03	ASR staging area	12/18/2001	3.0	3.6	7.59	155	0.5 U	27.2	112	131	0.232	33.9	995
PP01-06	ASR staging area	12/18/2001	6.0	0.5 U	4.01	114	0.5 U	13.9	19	18.1	0.13	16	73
PP01-09	ASR staging area	12/18/2001	9.0	-	-	-	-	-	-	-	-	-	-
PP01-13	ASR staging area	12/18/2001	13.0	-	-	-	-	-	-	-	-	-	-
PP02-01.5	WMW compressor	12/18/2001	1.5	-	-	-	-	-	-	-	-	-	-
PP02-05	WMW compressor	12/18/2001	5.0	-	-	-	-	-	-	-	-	-	-
PP02-09	WMW compressor	12/18/2002	9.0	-	-	-	-	-	-	-	-	-	-
PP02-13	WMW compressor	12/18/2002	13.0	-	-	-	-	-	-	-	-	-	-
PP02-17	WMW compressor	12/18/2002	17.0	-	-	-	-	-	-	-	-	-	-
PP03-01	Boydston oil storage area	12/18/2001	1.0	-	-	-	-	-	-	-	-	-	-
PP03-05.5	Boydston oil storage area	12/18/2001	5.5	-	-	-	-	-	-	-	-	-	-
PP04-01	PBM wash pad	1/28/2002	1.0	-	5.18	163	2.47	71.4	177	222	0.811	33.5	775
PP04-01A	PBM wash pad	2/18/2002	1.0	-	-	-	-	-	-	-	-	-	-
PP04-05	PBM wash pad	1/28/2002	5.0	0.5 U	3.13	89	0.5 U	9.15	15.9	6.31	0.1 U	14	48.3
PP04-13	PBM wash pad	12/18/2001	13.0	0.5 U	2.48	80	0.5 U	7.33	13	5.77	0.1 U	11.1	48.5
PP05-06	Former NW Oil Tanks	12/18/2001	6.0	-	-	-	-	-	-	-	-	-	-
PP05-09	Former NW Oil Tanks	12/18/2001	9.0	-	-	-	-	-	-	-	-	-	-
PP05-13	Former NW Oil Tanks	12/18/2001	13.0	-	-	-	-	-	-	-	-	-	-
PP05-17	Former NW Oil Tanks	12/18/2001	17.0	-	-	-	-	-	-	-	-	-	-

U - Not detected at noted reporting limit
"-" - Not analyzed

SCHN00153347

20060518

Analytical Report

Portland Blast Media Site

Sampling Event: 20060518

Report to: ANDERSON, Jim, Oregon Department of Environmental Quality Print Date: 07/26/2006

State of Oregon
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Quality

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Final Report Approved by:

Greg Pettit, Laboratory Administrator

Ron Doughten, Laboratory Quality Assurance Officer

SCHN00153350

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORY

Analytical Report

Sampling Event: 20060518 Portland Blast Media Site

The official final laboratory report carries the original signatures of the laboratory Quality Assurance Officer and Division Administrator, and is retained by the laboratory. All unsigned and electronic copies of this report are unofficial copies of the original document. The title page of the report bears the name of the primary document recipient. Questions as to the integrity of the data contained in this report should be directed first to the report's primary recipient and second to the laboratory. The laboratory maintains all raw data and records from which this report has been generated for a period of no less than five years. Additional electronic and/or printed copies of this report can be obtained by contacting the laboratory.

The DEQ Laboratory employs in its operations standard analytical methods that have been adopted by governing agencies for their specific application to sample matrices and regulatory programs of interest. In cases where standard analytical methods have not been promulgated, the laboratory has developed "in-house" methods which are consistent with best laboratory operating practices that will result in data of a quality appropriate for the intended use of information. Furthermore, all data has been scrutinized for adherence to established Quality Assurance/Quality Control (QA/QC) guidelines. Unless otherwise noted, the information contained in this report meets all the aforementioned requirements as documented in the laboratory's Quality Assurance Manual and Standard Operating Procedures. Specific deviations from these requirements are noted, as appropriate, in this report. Questions or concerns regarding the contents of this report can be addressed by contacting the DEQ laboratory at 503.229.5983.

Att: Request for Analysis

cc: DEQ Laboratory File

Sample Collector:
Steve Fortuna, Oregon Department of Environmental Quality

Analytical Laboratory:
Oregon Department of Environmental Quality

SCHN00153351

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORY

Analytical Report

Sampling Event: 20060518 Portland Blast Media Site

Sampling Event Summary

Sampling Event Comments:

All results are estimates due to non-standard sampling.

Preliminary report sent to Jim Anderson on 6/27/2006 by SR.

Sampling Subproject:

882 (24025) Schnitzer - Burgard Industrial Park

Sample Summary

Item	QA	Station	Sample Matrix	Sample Date / Time
001	S	33553 Portland Blast Media Site, retention pond runoff to Willamette River	Ditch/Pond	15-Jun-2006

Key to QA/QC Types

S = Sample

SCHN00153352

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORY

Analytical Report

Sampling Event: 20060518 Portland Blast Media Site

Item	Parameter	Method	MRL	Result	Unit	Notes
001 S (Grab) 33553 - Portland Blast Media Site, retention pond runoff to Willamette River, 06/15/2006						
Metals						
	Total Arsenic	6010 B	0.10	<0.10 est	mg/L	
	Total Barium	6010 B	0.20	<0.20 est	mg/L	
	Total Cadmium	6010 B	0.030	<0.030 est	mg/L	
	Total Chromium	6010 B	0.050	<0.050 est	mg/L	
	Total Lead	6010 B	0.050	**0.177 est**	mg/L	
	Total Mercury	7470 A	0.020	**0.747 est**	µg/L	
	Total Selenium	6010 B	0.10	<0.10 est	mg/L	1
	Total Silver	6010 B	0.020	<0.020 est	mg/L	

SCHN00153353

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORY

Analytical Report

Sampling Event: 20060518 Portland Blast Media Site

Sample / Result Comments

1) Selenium Estimate: QC sample failed to meet routine quality control limits. Matrix spike/matrix spike duplicate recoveries are 50% and 52% and confirmed with re-analysis.

SCHN00153354

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORY

Analytical Report

Sampling Event: 20060518 Portland Blast Media Site

DEPARTMENT OF ENVIRONMENTAL QUALITY
Laboratory Division

Sampling Event #: 20060518

Survey: Portland Blast Media Site (Schnitzer Bugard)
Sampling Subproject (fund code): ~~41520~~ 24025
Collected by: anonymous accepted by Jim Anderson (DEQ NWR)

Date Received in Lab: 6/15/06
Date Reported:
Report Data to: Jim Anderson NWR

Item #	LASAR # (required)	SITE NAME lat/long (in decimal degrees)*	Nutrient Basic	DO BOD	Metals Organics		Date Time	Temp (Deg. C)	Ph (SU)	Cond. (Umhos/cm)	ELEV RM	Tests Required +Hg
1	45.609 122.7784 33553	retention pond runoff to Willamette river			TM777		6/15/06					Pb, Cd, RCRA metals ≡ TPM1; Totals (IP tot digestion) EPA3010A
2												
3												
4												
5												
6												
7												

* lat/long only required if station is new

LEGAL SAMPLE: Chain of Custody Record

Total # of containers received: Initial placement in refrigerator #:
Relinquished by: Received By:
Date/Time: Date/Time:

Comments: Talked to Jim 6/16/06. He does want Hg & the RCRA metals. Not RCRA program so not TCLP or Total metals good.

Meter #'s:

End Report
07/26/2006 14:50

SCHN00153355

Shredder Water Focus Update 06-10-99

Attending: **Linda Barno**
Chuck Ford
Daryl Ford
Bob Gooch
Jim Goodrich
Larry Snodgrass

Problem	Solution	Barriers	Action	Assigned to	Date Due
Water Sources	Schematic to be found /drawn	Not one currently	Review files	Linda/Chuck will review files	05-28-99 Completed 1) Drain capped 50 yards from back of bulk loader
Water Smell	Chemicals Removal of tanks	Time / Manpower Water stagnates when Shredder not in use	Set Meeting w/ Mt. Hood Chemicals - Perry Kenin	Larry Snodgrass/ Chuck Ford	05-15-99 1) Spray bars have not at this time been put on a timer. Phase 1 will be to have these bars work over the weekend to eliminate smell 2) If that is unsuccessful, Chlorine test will be activated
Water Flow / Charts & Measurement	Meters 1) 5h (spray bars)pump 2) 10h (Fire spray) pump 3) 9600 4) 270,000 5) Radial Stack	5) Cost	Meters 1) Flow Meter 2) Flow Meter 3) Water meter 4) Water meter 5) Flow Meter Develop grafts	Larry Snodgrass	5-15-99 1) The water meter to establish accurate gpm of consumption has been ordered 2) Darrell is continuing to

SCHN00153356

	Monitor Water levels				monitor Flow 3) Data is continuing to be formatted
Rail Cars	Removal	Manpower	Removal of cars/plug drain	Chuck	Completed
Filtering system for water	1) Membranes 2) Sand filter 3) Chemicals	Cost / Effectiveness / Speed	Research	Linda - Membranes /sand filter Larry - Chemicals	05-28-99 Still receiving information: John Marsh, Application Eng. 2310 E 2nd Street Vancouver, WA 98661 360-750-7709
Addt. Water holding capacity	New Tank	Cost ($150,000 - $175,000)	Needs Prices	Larry	05-28-99 No information to date
Water Removal	Dumping into sewer	Cost / DEQ review / Corp. *not interested*	Review cost of past charges / *determine* potential future costs	Unassigned	Will review at next meeting
Clean-up Water	Water Treatment plant	Costs / Manpower	On Hold	Unassigned	N?A

Current estimates of water usage is 67,500 gallons per day / 139 gallons per minute

Ideas for next meeting discussion:
1) Use of software to monitor water levels
2) Hood to capture smoke and scrub it
3) Beatification Program - plants, barkdust, rocks
4) Angells Brothers - different Rock

SCHN00153357

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbus Ave.
Beaverton, OR
97005

Tel 503 626 7424
Fax 503 643 1460

FAX COVER SHEET

Date: 11/2/95

To: Tim Todd

Company: Schnitzer

FAX #: 286-6948

From: Hugh Healey
Amtest - Beaverton
Phone: 503-626-7424
Fax: 503-643-1460

Number of pages including cover sheet: 3

SUBJECT: Lab Results

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

ANALYSIS REPORT

CLIENT
Tim Todd
Schnitzer Steel Products, Inc.
P.O. Box 10047
Portland OR 97210

Date Received: 10/20/95
Date Analyzed: 11/1/95
Date Reported: 11/2/95
Job Number: 29311
Page: 2

Analysis - Metals (EPA 7000 Series)
Sample Type - Water

Project - Stormwater

	Results		Quality Control Information	
Lab Sample Number	29311	Detection	Digestion	Blank
Client Identification	SW1	Limit	Blank	Spike
Metal	mg/L (ppm)	mg/L (ppm)	mg/L (ppm)	% Recovery
Arsenic	ND	0.01	ND	104
Cadmium	0.016	0.002	ND	93
Chromium	0.08	0.01	ND	113
Lead	0.75	0.01	ND	102
Mercury	ND	0.001	ND	
Nickel	0.13	0.01	ND	

ND = None Detected

Reported By

QA Check

Greg Bolt
Laboratory Manager

CHAIN OF CUSTODY RECORD

AMTEST

AmTest Inc.
Professional Analytical Services
9208 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

DATE:

Project Manager: Tim Todd
Company Name:
Address:
City, State, ZIP:
Phone:
FAX:

P.O. # or Project Number:
Project Name:
Project Location:

Lab Project Number: 2937

Lab Location: R2-53

RUSH? YES NO

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
2937	SW1	H2O	Conductivity
			(EPA 120.1),
			pH, TSS (EPA
			160.2) COD
			(EPA 410.4),
			Total Oil & Grease
			(SM 5520BF)
			& Cr, Cd, Pb,
			Ni, As, Cd,
			& Hg (7000
			Series)
			TOC

LAB USE ONLY

Additional Analyses:
Requested By:
Date:

Relinquished By	Date/Time	Received By	Date/Time
Timothy R. Todd	10/20/95 0800	[illegible]	10/20/95 13:00
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

	Results		Quality Control Information	
Lab Sample Number	29311	Detection	Digestion	Blank
Client Identification	SW1	Limit	Blank	Spike
Metal	mg/L (ppm)	mg/L (ppm)	mg/L (ppm)	% Recovery
Arsenic	ND	0.01	ND	104
Cadmium	0.016	0.002	ND	93
Chromium	0.08	0.01	ND	113
Lead	0.75	0.01	ND	102
Mercury	ND	0.001	ND	
Nickel	0.13	0.01	ND	

ND = None Detected

Reported By

QA Check

Greg Bolt
Laboratory Manager

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

ANALYSIS REPORT

CLIENT
Tim Todd
Schnitzer Steel Products, Inc.
P.O. Box 10047
Portland OR 97210

Date Received: 10/20/95
Date Analyzed: 11/1/95
Date Reported: 11/2/95
Job Number: 29311
Page: 1

Project - Stormwater

Sample Type - Water

Lab Number	Client Identification
29311	SW1

Analysis	Results	Detection Limit	Blank
pH (EPA 150.1)	7.1		
Oil & Grease (EPA 413.2)	14 mg/L (ppm)	3.0 mg/L	ND
TSS (EPA 160.2)	130 mg/L (ppm)	5 mg/L	ND
COD (EPA 410.4)	1700 mg/L (ppm)	50 mg/L	ND
Conductivity (EPA 120)	2100 umhos/cm		
TOC (EPA 415.1)	500 mg/L (ppm)	1 mg/L	ND

ND = None Detected

Reported By

QA Check

Greg Bolt
Laboratory Manager

MT. HOOD CHEMICAL CORPORATION
4444 N.W. Yeon Avenue
Portland, Oregon 97210
Emergency Phone: 503-227-3505

MATERIAL SAFETY DATA SHEET
PRODUCT NAME: ASTAT

N/A = NOT APPLICABLE
NA = NOT AVAILABLE

PRODUCT NAME: ASTAT PREPARED BY: K. Woods DATE: August 24, 1994

CHEMICAL FAMILY: Liquid biocide FORMULA: Proprietary

HAZARDOUS INGREDIENTS (CAS #):	%	EXPOSURE LIMITS, ppm: ACGIH TLV	OSHA-PEL
Poly (oxyethylene (dimethylimidio) ethylene-(dimethylimidio) ethylene dichloride) (31075-24-8)	15	N/A	N/A

CARCINOGENIC INGREDIENTS: Contains no known or suspected carcinogens.

PHYSICAL PROPERTIES:
Boiling Point: About 200°F
Solubility in Water: 100%
Specific Gravity - Liquid (H_2O = 1): 1.025-1.030
Odor and Appearance: Clear, amber liquid; bland odor
% Volatiles: NA
% Volatile Organic Content (VOC): 0
Vapor Pressure: N/A
Vapor Density (Air = 1): N/A

FIRE AND EXPLOSION DATA:
Flash Point: Above 200°F
Extinguishing Media: Water, CO_2, foam, dry chemical
Special Firefighting Procedures: None
Unusual Hazards: None
Flammability Limits: N/A

HEALTH EFFECTS:
Effects of overexposure: May cause temporary minor eye irritation. Prolonged skin contact may cause minor irritation in some sensitive individuals. Ingestion may cause nausea or diarrhea.
Chronic effects of overexposure: None known or expected.
Medical conditions that may be aggravated by exposure: None known or expected.
Primary routes of entry: Ingestion, skin contact

EMERGENCY AND FIRST AID PROCEDURES:
Eye Contact: Flush thoroughly with plenty of water for at least 15 minutes. If irritation persists, see a physician.
Skin Contact: Flush thoroughly from skin with water. Wash with soap and water.
Ingestion: Drink plenty of water and call a physician immediately. Avoid alcohol.
Inhalation of mist or vapor: Move to fresh air.

REACTIVITY DATA:
Stability: Stable
Incompatibility: None
Hazardous Decomposition Products: None
Conditions to Avoid: None
Hazardous Polymerization: Will not occur

SPILL OR LEAKAGE PROCEDURES:
Steps to be taken if material is released or spilled:
Flush to sanitary sewer with plenty of water, mop up, or absorb on an absorbent.
Scrub floor well to remove residue to prevent slipperiness.
Waste disposal method: According to local, state, or federal ordinances.

SPECIAL PROTECTION INFORMATION:
Ventilation: NA
Respiration Protection: None required
Eye Protection: None required. If splashing is possible, safety goggles are recommended.
Protective Gloves: None required
Other Protective Equipment: None required

SPECIAL PRECAUTIONS:
Precautions to be taken in handling and storage: Store in closed container in a dry place. Wash thoroughly after handling.
KEEP OUT OF REACH OF CHILDREN.
Other precautions: None

HAZARD RATING:

Health:	1	0 = Minimal	3 = Serious
Fire:	1	1 = Slight	4 = Severe
Reactivity:	1	2 = Moderate	
Specific Hazard:	N/A		

A IED COLLOIDS INC

2301 WILROY ROAD, P.O. BOX 820
SUFFOLK, VA 23439-0820
(804) 538-3700

24-HOUR EMERGENCY CONTACT
CHEMTREC: 800/424-9300

Material Safety Data Sheet

SECTION I - IDENTIFICATION

PRODUCT: **PERCOL® 778**

ISSUE/REV DATE 16-Jul-92

CHEMICAL FAMILY: Copolymer of a quaternary acrylate salt and acrylamide dispersed in mineral oil.

DESCRIPTION: White or off-white liquid. Slight, mild odor.

HMIS RATING (NPCA)

H 1 HEALTH (ACUTE)
F 1 FLAMMABILITY
R 0 REACTIVITY
P * PERSONAL PROTECTION

* PERSONAL PROTECTION RATING BY USER. DEPENDENT ON USE.

DEGREE OF HAZARD
4 = SEVERE
3 = SERIOUS
2 = MODERATE
1 = SLIGHT
0 = MINIMAL

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS No.	LIMIT(S) IN AIR PPM	LIMIT(S) IN AIR mg/m³	REMARKS
POLYOXYETHYLENE NONYL PHENOL	9016-45-9	ND	ND	
COPOLYMER ACRYLAMIDE: DMAEA Q.(MeCl)	69418-26-4	ND	ND	
NAPHTHOL SPIRITS	64742-88-7	T 400	T 1600	OSHA limit (naphtha)
HYDROTREATED LIGHT NAPHTHENIC DISTILLATE	64742-53-6	T 400	T 1600	OSHA limit (naphtha)
ADIPIC ACID	124-04-9	ND	ND	

T = TWA-8, C = CEILING, S = STEL-15min
NTP and/or IARC in remarks indicates possible or probable human carcinogen

SECTION III - PHYSICAL PROPERTIES

BOILING POINT: > 480 F

SPECIFIC GRAVITY: 1.0-1.2

VAPOR DENSITY (air=1): ND

pH: NA

VOLATILES (% by volume): ND

VAPOR PRESSURE (mmHg): <.5 @68F

EVAPORATION RATE (ether=1): < 1

SOLUBILITY IN WATER: Soluble - solubility limited by viscosity.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA
Carbon dioxide, dry chemical or foam.

FLASH POINT: > 200 F
LEL: ND
UEL: ND

SPECIAL FIRE FIGHTING PROCEDURES
Firefighters should wear normal protective equipment. SCBA is recommended for confined areas. Cool exposed drums or tanks with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Wetted product presents an extreme slip hazard. Pedestrian and vehicular traffic must proceed with caution where even a small amount of wet product may exist.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

INCOMPATIBILITY: Strong oxidants such as liquid chlorine, enriched gaseous or liquid oxygen, and sodium or calcium hypochlorite.

PERCOL IS A TRADEMARK OF ALLIED COLLOIDS INC

Allied Colloids Inc

Material Safety Data Sheet

SECTION VI - HEALTH HAZARD DATA

NATURE OF PRINCIPAL HAZARD(S): Eye and skin irritant.

TARGET ORGAN(S): Eyes, skin

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE:
Contact with the eye may produce irritation and/or redness. Prolonged or repeated skin contact tends to remove skin oils, possibly leading to dry skin, irritation and/or dermatitis. Vapors may irritate eyes and respiratory tract, and result in headache or dizziness.

CARCINOGENICITY:
Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH

EXPOSURE LIMITS:
None established for product. Refer to Section II for limits, if any, appropriate for hazardous ingredients.

SAFETY PRECAUTIONS:
Do not get in eyes, on skin, on clothing.
Wash thoroughly after handling.
Avoid prolonged or repeated skin contact.
Caution - slip hazard - see Sections IV and/or VII.

FIRST AID:

EYE CONTACT:	Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
INGESTION:	Consult a physician. Never give anything by mouth to an unconscious person.
SKIN CONTACT:	Remove contaminated clothing and launder before reuse. Wash effected area with soap and water.
INHALATION:	Remove to fresh air. If symptoms persist, consult a physician.

SECTION VII - ENVIRONMENTAL DATA

SPILL OR LEAK PROCEDURES
Remove all ignition sources. Dike area to control runoff, and collect spill in appropriate container(s). Use an inert absorbant such as vermiculite to collect residual liquid. Then water wash area to waste treatment to eliminate slip hazard.

WASTE DISPOSAL METHOD
Disposal must be arranged in accordance with local, state and federal regulations. This material, when unadulterated, is not a RCRA regulated hazardous waste. However, local disposal regulations will often apply. Care must be taken to prevent environmental contamination from the disposal of material, residues and containers.

SECTION VIII -PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:	Use NIOSH approved respirator for organic vapor and/or mist, as required to control exposure.		
PROTECTIVE GLOVES:	Chemical resistant gloves.	EYE PROTECTION:	Full sideshield safety glasses or goggles (ANSI Z87.1 standard).
VENTILATION:	Recommended general ventilation rate of, as a minimum, 10 air changes per hour.		
OTHER EQUIPMENT:	Provide eyewash station(s). Select additional protective equipment (eg apron, face shield, [illegible] depending on conditions of use		

SECTION IX - REGULATORY INFORMATION

SHIPPING INFORMATION

PROPER SHIPPING NAME: NOT A DOT/IMO HAZARDOUS MATERIAL

ID NUMBER: NA RQ: NA DOT EMERGENCY GUIDE (ERG) #: 31

HAZARD CLASS or DIVISION: NA PACKING GROUP: -

TSCA COMPONENTS APPEAR ON THE TSCA INVENTORY

SARA PRODUCT HAZARD CATEGORIES (Sec 311): ACUTE HEALTH HAZARD

The following components are defined as toxic chemicals subject to reporting requirements of SARA Section 313 and of 40 CFR 372:

No components are 313 Toxic Chemicals

STATE LABELLING INFORMATION

NJ RTK LABEL - COMPONENTS INCLUDE:	CAS or ID #:
POLYOXYETHYLENE NONYL PHENOL	9016-45-9
COPOLYMER ACRYLAMIDE: DMAEA Q.(MeCl)	69418-26-4
NAPHTHOL SPIRITS	64742-88-7
HYDROTREATED LIGHT NAPHTHENIC DISTILLATE	64742-53-6
ADIPIC ACID	124-04-9

CA PROP 65: CALL FOR ADDITIONAL INFORMATION

SECTION X - ADDITIONAL INFORMATION

NA=Not Applicable; ND=Not Determined or No Data

Avoid high temperatures and open systems to minimize vapor release and exposures.

Keep containers closed and properly labelled.
Do not reuse containers before contents are completely removed, and the container is properly cleaned and reconditioned. (Refer also to Section VII)

Good personal hygiene practices can reduce potential exposure. Wash with soap and water following any contact with this product, as well as before breaks and meals. Shower and change clothing at end of work shift. If clothing becomes contaminated, remove and launder or dry-clean before reuse.

The information and recommendations contained herein are, to the best of Allied Colloids Inc's knowledge and belief, accurate and reliable as of the last revision date. This document is offered in good faith. The information relates to the specific material designated, and may not be valid for such material used in combination with any other materials, in any process, or if used in a manner other than for which it is intended.

Allied Colloids Inc does not warrant or guarantee accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer warranty against patent infringement.

Report Date: May 16, 1995
Job Number: 950509AT
PO Number: 23516
Project No: None Provided
Project Name: Water

Keith Lawson
Schnitzer Steel Industries,Inc
P.O. Box 10047
Portland, OR 97233

Analytical Narrative

The samples were received on 05/09/95 by Coffey Laboratories, Inc. (CLI) Sample Reception personnel under strict chain of custody protocol. The following information was provided at the time of sample reception:

Laboratory Sample ID	Field Identification	Matrix	Collection Date	Collection Time
950509AT-1	Sample A	Waste Water	05/08/95	NP
950509AT-2	Sample B	Waste Water	05/08/95	NP

The recommended holding time for each batch of analyses was in accordance with the data quality objectives as specified in the CLI Quality Assurance Plan unless otherwise noted.

EPA 150.1: Sample #2 was received at the laboratory and analyzed for pH one (1) day after the method holding time had expired.

Acceptable precision and accuracy were achieved for all analyses associated with this work order as demonstrated by the recoveries of the quality control samples analyzed concurrently with each batch.

The data submitted in this report is for the sole and exclusive use of the above-named client. All samples associated with the work order will be retained a maximum of 15 days from the report date or until the maximum holding time expires. All results pertain only to samples submitted.

Thank you for allowing Coffey Laboratories to be of service to you. If you have questions or need further assistance, please do not hesitate to call our Customer Services Department.

Sincerely,

Rona A. Klueh
Technical Director

SSP - PURCHASING
MAY 19 1995

RAK/atc

COFFEY LABORATORIES, INC.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

Analytical Data

Schnitzer Steel Industries,Inc

Job Number: 950509AT

Lab Sample ID: 950509AT-1
Field ID: Sample A
Date/Time: 05/08/95
Matrix: Waste Water

EPA Category: Conventional Parameters

Parameter	Method	Detection Limit	Analytical Result	Units	Analysis Date	Analyst
Total Oil & Grease	SM 5520BF	3.	47.	mg/L	05/11/95	JAG
Polar Oil & Grease	SM 5520BF	3.	39.	mg/L	05/11/95	JAG
Total Petroleum Hydrocarbons	SM 5520BF	3.	8.	mg/L	05/11/95	JAG

SSP - PURCHASING
MAY 19 1995

COFFEY LABORATORIES, INC.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

Analytical Data

Schnitzer Steel Industries,Inc

Job Number: 950509AT

Lab Sample ID: 950509AT-2
Field ID: Sample B
Date/Time: 05/08/95
Matrix: Waste Water

EPA Category: Conventional Parameters

Parameter	Method	Detection Limit	Analytical Result	Units	Analysis Date	Analyst
pH	EPA 150.1	----	6.89	S.U.	05/09/95	AEK

SSP - PURCHASING
MAY 19 1995

COFFEY LABORATORIES, INC.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: CYTOCHARGE-PFE 100 NP
PRODUCT CODE: 104
PAGE 1 OF 2

HMIS CODES:

H	F	R	P
1	0	0	B

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: FSS, LLC
ADDRESS: PO BOX 90082 PORTLAND, OR 97290
PHONE: (503) 481-4479
DATE REVISED: 1/16/04
REASON REVISED: NEW MSDS
NAME OF PREPARER: ERIC N. JOHNSON

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

INGREDIENTS: Proprietary.
** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present. **

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A
VAPOR PRESSURE (mm Hg): N/A
VAPOR DENSITY: N/A
SOLUBILITY IN WATER: GRADUAL
SPECIFIC GRAVITY (H20=1): APPROX. 2.5-2.9
SURFACE TENSION (DYNES/CM @ 25° C): N/A
EVAPORATION RATE (BUTYL ACETATE = 1): N/A
pH: 8-9(IN SOLUTION)
COLOR: LIGHT GREEN

APPEARANCE AND ODOR: DRY POWDERED COMPOUND, SLIGHT FLORAL ODOR

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A
METHOD USED: COC

FLAMMABLE LIMITS IN AIR BY VOLUME: **LOWER** - Not applicable **UPPER** - Not applicable

EXTINGUISHING MEDIA: Not Flammable - May be exposed to foam, CO2, dry chemical, water fog or other extinguishing medias.

SPECIAL FIRE FIGHTING PROCEDURES: None.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

SECTION V - REACTIVITY DATA

STABILITY: Stable.
CONDITIONS TO AVOID: None.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: None.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTONS OF EXPOSURE: None known.

EYE CONTACT HEALTH RISKS AND SYMPTONS OF EXPOSURE: This material may cause eye irritation. Organisms used are non-pathogenic but can cause infection when in contact with open wounds. These organisms are susceptible to many commonly-used antibiotics.

SKIN ABSORPTION HEALTH RISKS AND SYMPTONS OF EXPOSURE: Slight redness on hands and forearms if individual has a history of dermal allergic reaction. Dermatitis and skin sensitization can develop after repeated and/or prolonged contact with human skin. Systemically toxic concentrations will probably not be absorbed through the skin in man.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: No effect if ingested in small amounts. Relative to other materials a single dose of this product is rarely toxic by ingestion. Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

HEALTH HAZARDS (ACUTE AND CHRONIC): None reported.

CARCINOGENICITY: NTP - No **IARC MONOGRAPHS** - No **OSHA REGULATED** - No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None.

EMERGENCY AND FIRST AID PROCEDURES:

EYES - Flush immediately with lots of running water for at least 15 minutes holding eyelids open. Get prompt medical attention.

SKIN - Remove contaminated clothing and footwear. Wash material off the skin with plenty of soap and water. Wash clothing and footwear before reuse.

INGESTION - Drink water or milk to dilute. Induce vomiting only if advised by physician or poison contract center. Consult a physician or poison control center immediately. Treat symptomatically. Do not give anything by mouth to an unconscious or convulsing person.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No precautions necessary. Wash into sewer or septic system.

WASTE DISPOSAL METHOD: Disposal of this product or its residues must be in accordance with all local, state and federal requirements.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a dry place. Keep container closed when not in use. Store away from open flame, other heat sources.

OTHER PRECAUTIONS: None.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: Not required when using this product.

VENTILATION: Normal room ventilation.

PROTECTIVE GLOVES: Wear resistant gloves, such as polyethylene, recommended with prolonged use.

EYE AND SKIN PROTECTIVE CLOTHING OR EQUIPMENT: Safety glasses or face shield, and where gross skin contact may occur, use and wear appropriate protective clothing.

WORK/HYGIENIC PRACTICES: Wash hands before eating or using restrooms. Remove and wash contaminated clothing before reuse.

SECTION IX - DISCLAIMER

DISCLAIMER: The information herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and just make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and for the safety and health of employees.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: BIO STIM KB4 NP
PRODUCT CODE: 101
PAGE 1 of 2

HMIS CODES: H F R P
1 0 0 B

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: BIO-STIM, INC.
ADDRESS: 4150 N. SUTTLE RD, PORTLAND, OR 97217
PHONE: (503) 286-0450 or (800) 848-0398
DATE REVISED: 7/13/93 NAME OF PREPARER: RICHARD WENGEL
REASON REVISED: NEW MSDS

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

INGREDIENTS: Proprietary.
** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.**

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 212°F
VAPOR PRESSURE (mm Hg): 17.2
VAPOR DENSITY: .63
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY (H20=1): 1.0
SURFACE TENSION (DYNES/CM @ 25° C): 29.5
EVAPORATION RATE (BUTYL ACETATE = 1): .69
pH: 9
COLOR: Brown

APPEARANCE AND ODOR: Liquid, Slightly viscous, Mild pleasent odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None
METHOD USED: COC

FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER - Not applicable UPPER - Not applicable

EXTINGUISHING MEDIA: Not Flammable - May be exposed to foam, CO2, dry chemical, water fog or other extinguishing medias.

SPECIAL FIRE FIGHTING PROCEDURES: None.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

SECTION V - REACTIVITY DATA

STABILITY: Stable.
CONDITIONS TO AVOID: None.

INCOMPATIBILITY (MATERIALS TO AVOID): Some metals.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: None.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: None KNOWN.

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: This material may cause eye irritation. Organisms used are non-pathogenic but can cause infection when in contact with open wounds. These organisms are susceptible to many commonly-used antibiotics.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Slight redness on hands and forearms if individual has a history of dermal allergic reaction. Dermatitis and skin sensitization can develop after repeated and/or prolonged contact with human skin. Systemically toxic concentrations will probably not be absorbed through the skin in man.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: No effect if ingested in small amounts. Relative to other materials a single dose of this product is rarely toxic by ingestion. Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

HEALTH HAZARDS (ACUTE AND CHRONIC): None reported.

CARCINOGENICITY: NTP - No IARC MONOGRAPHS - No OSHA REGULATED - No
The components of this product are not considered to be carcinogens by the National Toxicology Program the International Agency for Research on Cancer, or the Occupational Safety and Health Administration.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None reported.

EMERGENCY AND FIRST AID PROCEDURES:

EYES - Flush immediately with lots of running water for at least 15 minutes holding eyelids open. Get prompt medical attention.

SKIN - Remove conmtaminated clothing and footware. Wash material off the skin with plenty of soap and water. Wash clothing and footware before reuse.

INGESTION - Drink water or milk to dilute. Induce vomiting only if advised by physician or poison control center. Consult a physician or poison control center immediately. Treat symptomatically. Do not give anything by mouth to an unconscious or convulsing person.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No precautions necessary. Wash into sewer of septic system.

WASTE DISPOSAL METHOD: Disposal of this product or its residues must be in accordance with all local, state and Federal requirements.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a dry place. Keep container closed when not in use. Store at temperatures above the solutions freezing point to remain liquid.

OTHER PRECAUTIONS: None.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: Not required when using this product.

VENTILATION: Normal room ventilation.

PROTECTIVE GLOVES: Wear-resistant gloves, such as polyethylene recommended with prolonged use.

EYE AND SKIN PROTECTIVE CLOTHING OR EQUIPMENT: Safety glasses or face shield, and where gross skin contact may occur, use and wear appropriate protective clothing.

WORK/HYGIENIC PRACTICES: Wash hands before eating or using restrooms. Remove and wash contaminated clothing before reuse.

SECTION IX - DISCLAIMER

DISCLAIMER: The information herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and just make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and for the safety and health of employees.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : ***GL-827*** ***CR 4399***

MANUFACTURER'S NAME : C. C. I.
ADDRESS : 3540 EAST 26TH STREET, VERNON, CA 90023
EMERGENCY TEL NO : 800-424-9300
TEL NO FOR INFORMATION : 800-767-9112
DATE REVISED: 03/18/03

HAZARDOUS INGREDIENTS IDENTITY INFORMATION

Hazardous Components	CAS No	OSHA PEL	ACGH TLV	Other limits	%
HYDROCHLORIC ACID	7647-01-0		5ppm		10-15

SARA Title III: sec.302: Only gas. sec.313: Listed (toxic) Proposition 65: Not listed

Polyaluminum Chloride	1327-41-9	2 mg/m^3 (as Al)	85-90

PHYSICAL CHEMICAL CHARACTERISTICS

Boiling point : 101°C
Vapor pressure : N/A
Vapor Density : N/A
Solubility in Water : Complete
Specific Gravity : 1.335
Melting point : -16 °C
Evaporation Rate : NA
pH @ 77 °F. 1% Solution : 3.5
Appearance and Odor : Clear yellowish green liquid, negligible odor.

FIRE AND EXPLOSION HAZARD DATA

Flash point : Non-flammable
Flammable Limits : NA
LEL : NA
UEL : NA
Extinguishing Media : Foam, Alcohol, CO2, Dry Chemical, Water Spray, Water
Special Firefighting Procedures : Wear protective clothing and footwear.
Unusual Fire and Explosion Hazards : Temperatures above 1400 °F. yield toxic and corrosive gases.

**** NA = Not Applicable***

HEALTH HAZARD DATA

Route of Entry : Inhalation : x Eyes : x Skin : x Ingestion : x

Acute Health Hazards : May cause skin irritation. May irritate gastrointestinal tract. May strongly irritate or burn eyes.

Chronic Health Hazards : Breathing of mists may irritate respiratory tract.

Signs and Symptoms of Exposure : Irritation of eyes and skin. Inhalation will cause nausea. Ingestion is harmful.

Medical Conditions Generally Aggravated by Exposure : None reported.

EMERGENCY & FIRST AID PROCEDURES

INHALATION : Remove to fresh air.
EYE CONTACT : Immediately flush eyes with large quantities of water for 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.
SKIN CONTACT : Immediately wash skin with plenty of soap and water. If irritation occurs or persists, obtain medical attention.
INGESTION : If swallowed, give two glasses of water and call a physician immediately. Never give anything by mouth to an unconscious or convulsing person.

TOXICITY DATA

Carcinogenicity : No
OSHA Regulated : Yes

REACTIVITY DATA

Stability : Stable
Conditions to Avoid : If evaporated to dryness, residue should not be exposed to temperatures above 760 °F. These yield toxic and corrosive gases.
Incompatibility (Materials to Avoid) : Alkalies and water-reactive materials such as oleum cause exothermic reactions.
Hazardous Decomposition or Byproducts : At temperatures cited above, sulfur oxide gases. These are toxic and are oxidizers and corrosive. The trioxide is also a fire hazard. The loss of these gases leaves caustic residue.
Hazardous Polymerization : Will Not Occur.

PRECAUTIONS FOR SAFE HANDLING USE

Steps to be taken in case material is released or spilled : Dike area and use absorbent material. Pump to suitable container. Wear protective equipment, including rubber boots, gloves and apron. Chemical goggles should be worn.

Waste Disposal Method : Dispose in accordance with federal, state and local governmental agencies. Neutralize with alkali, then flush to sewer with plenty of water, if permitted by applicable disposal regulations. Neutralized waste may have to be disposed of by an approved contractor. When using carbonates of a neutralization, adequate precautions should be taken to minimize hazard and pressure build-up from CO_2 gas evolutions.

Precautions to be taken in Handling and Storing : No special handling required other than the wearing of protective clothing when splashing may occur.

CONTROL MEASURES

Respiratory Protection : When required for mists, use a respirator approved by NIOSH.
Local Exhaust : Local exhaust if misty conditions prevail. May exceed TLV without visible indication.
Protective Gloves : Impervious gloves.
Eye Protection : Safety goggles, do not wear contacts
Other protective Clothing or Equipment : Wear hard hat (or other head coverings.) Wear impervious gloves, apron and full work clothing including shirt, trousers and boots. Completely impervious clothing should be substituted if there is prolonged or repeated contact.
Work Hygienic Practices : Eye wash and quick drench shower facilities are recommended. Avoid contact with skin, eyes or clothing. Avoid breathing mists.

DOT HAZARDOUS INFORMATION

UN/NA : UN 1789
Classification : INORGANIC ACID
Proper Shipping Name : ***HYDROCHLORIC ACID SOLUTION, 8, UN 1789, PG III, CORROSIVE***
HMIS HEALTH RATING: 0-INSIGNIFICANT, 1-SLIGHT, 2-MODERATE,3-HIGH,4-EXTREME
RATING FOR THIS PRODUCT :

TOXICITY : 1	FIRE : 0	REACTIVITY : 0

NOTICE

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C. C. I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express of implied is made by C. C. I. as to the effects of such use, the results to be obtained of the safety and toxicity of the product nor does C. C. I. assume any liability arising out of use by others of this product.

Delivered by: VANCOUVER WAREHOUSE & DISTRIBUTION CO.
1101 W 11TH Street, Vancouver, WA 98660 or 1810 W 39th Street, Vancouver, WA
P O Box 61486, Vancouver, WA 98666 Phone: (360) 693-1487 Portland: (503) 283-2086 Fax: (360) 693-1443

Vancouver
WAREHOUSE & DISTRIBUTION CO.
1101 WEST 11th St
VANCOUVER, WASHINGTON 98660
PHONE (360) 693-1487
PORTLAND (503) 283-2086
FAX (360) 693-1443

STRAIGHT BILL OF LADING
SHORT FORM - ORIGINAL - NOT NEGOTIABLE PAGE 1 OF 1

DATE 10/8/03
BILL OF LADING NUMBER 57436

APPLY PRO LABEL HERE

CONSIGNEE: SCHNITZER
12005 N BURGARD RD BLDG B
PORTLAND OR 97203

BILL TO: C. C . I.
3540 E 26TH ST
VERNON CA 90023

SHIPPER: CCI
% VANCOUVER WHSE & DIST
VANCOUVER WA 98660

CARRIER VANC.WHSE
CHARGES PREPAID
SHIPPER NO.
P.O. NO. 12644

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all of any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.
Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

NO. OF PIECES	HM	KINDS OF PACKAGES, DESCRIPTION OF ARTICLES, SPECIAL MARKS & EXCEPTIONS	*WEIGHT	
1 TOTE	✔	GL-827---275/GAL HYDROCHLORIC ACID SOLUTION,8,UN 1789,PG II ********** DELIVER THURS....10/9 **********	3,200 LB	☐ PLACARDS PROVIDED FOR THIS LOAD
TOTAL PIECES 1 TOTE		IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEMTREC AT (800) 424-9300	TOTAL WEIGHT 3,200	

Received $
To apply in prepayment of the charges on the property described herein.
Agent or Cashier
Per
(The signature here acknowledges only the amount prepaid.)
Subject to section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of consignor)

C.O.D AMOUNT $
☐ CO CHECK OK
☐ CASHIER CHECK ONLY

THE AGREED OR DECLARED VALUE OF THE PROPERTY IN HEREBY SPECIFICALLY STATED BY THE SHIPPER TO BE NOT EXCEEDING $_____ PER _____
THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTAION.

SHIPPER C.C.I.
CARRIER VANCOUVER WHSE & DIST
AGENT VANCOUVER WAREHOUSE AND DISTRIBUTION CO.
DRIVER
TRAILER #
BY C. MCGUIRE
DATE
NO. OF PACKAGES

SCHN00153386

Vancouver
WAREHOUSE & DISTRIBUTION CO.
1101 WEST 11th St
VANCOUVER, WASHINGTON 98660
PHONE (360) 693-1487
PORTLAND (503) 283-2086
FAX (360) 693-1443

STRAIGHT BILL OF LADING
SHORT FORM - ORIGINAL - NOT NEGOTIABLE

DATE 10/8/03

BILL OF LADING NUMBER 57436

APPLY PRO LABEL HERE

CONSIGNEE: SCHNITZER
12005 N BURGARD RD BLDG B
PORTLAND OR 97203

BILL TO: C. C . I.
3540 E 26TH ST
VERNON CA 90023

SHIPPER: CCI
% VANCOUVER WHSE & DIST
VANCOUVER WA 98660

CARRIER VANC.WHSE

CHARGES PREPAID

SHIPPER NO.

P.O. NO. 12644

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all of any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

NO. OF PIECES	HM	KINDS OF PACKAGES, DESCRIPTION OF ARTICLES, SPECIAL MARKS & EXCEPTIONS	*WEIGHT
1 TOTE	✔	GL-827---275/GAL HYDROCHLORIC ACID SOLUTION,8,UN 1789,PG II	3,200 LB
		********** DELIVER THURS....10/9 **********	
TOTAL PIECES 1 TOTE		IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEMTREC AT (800) 424-9300	TOTAL WEIGHT 3,200

☐ PLACARDS PROVIDED FOR THIS LOAD

Received $

To apply in prepayment of the charges on the property described herein.

Agent or Cashier

Per

(The signature here acknowledges only the amount prepaid.)

Subject to section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

C.O.D AMOUNT $

☐ CO CHECK OK

☐ CASHIER CHECK ONLY

THE AGREED OR DECLARED VALUE OF THE PROPERTY IN HEREBY SPECIFICALLY STATED BY THE SHIPPER TO BE NOT EXCEEDING $_____ PER _____

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTAION.

SHIPPER C.C.I.

CARRIER VANCOUVER WHSE & DIST

AGENT VANCOUVER WAREHOUSE AND DISTRIBUTION CO.

DRIVER

TRAILER #

BY C. MCGUIRE

DATE

NO. OF PACKAGES

SCHN00153387

C.C.I.

A Chemical Corporation

May 14, 2003

Mathew Cusma, PE
Environmental Administrator
Schnitzer Steel
Portland, OR

cc: Heath Ford

Mat,

The jar testing that Heath and I did on Tuesday went well. I tested the polymer with two different coagulants. First I ran RO-25, the coagulant that gave the best results in our previous testing. Then I ran GL-827, another inorganic/organic coagulant blend. We ran the GL-827 with and without polymer. The results in both cases were excellent. Heath and I then compared your current product to GL-827. The GL-827 gave significantly better solids settling and water clarity at a lower dosage than your current coagulant. The tables below outline the dosages and results of the jar testing.

Table 1. Jar Test Procedure

	Jar Test 1	Jar Test 2	Jar Test 3	Jar Test 5
Sample Size	1000 mls	1000 mls	1000 mls	1000 mls
Coagulant	RO-25	RO-25	RO-25	GL-827
Dosage	200-PPM	100-PPM	100-PPM	150-PPM
Polymer	WW-5000	WW-5000	WW-1100	WW-5000
Dosage	200-PPM	100-PPM	3000-PPM	100-PPM
Results	Good water clarity, Large-stringy Floc, OD polymer	Good results, large floc, not as good as Jar #1	Poor Floc with Cationic polymer	Great pin floc prior to polymer, Large floc with polymer, Excellent water clarity and settling

	Jar Test 4	Jar Test 6	Jar Test 7
Sample Size	1000 mls	1000 mls	1000 mls
Coagulant	GL-827	Current Product	GL-827
Dosage	100-PPM	200-PPM	150-PPM
Polymer	None	None	None
Dosage	n/a	n/a	n/a
Results	Better pin floc than with RO-25	Poor particle size and settling, The product is extremely thick like honey	Great Floc for no polymer, performed significantly better than current product. Great settling and clarity.

C.C.I - Effectively Meeting the Industrial Water Treatment Needs of Our Customers.

SCHNITZER STEEL INDUSTRIES INC.

Vendor Detail Report

SSP - Portland

For Transactions Between: 1-01-99 and 12-31-99

Vendor			Amount
MT. HOOD CHEMICAL CORP.			***$12,069.04***
PO No. 163	7/1/1999	NCT-1 cooling tower inhibitor SHEAR	*2005.3*
PO No. 194	7/13/1999	MH2P-403 Polymer SHEAR	*3909.12*
PO No. 376	8/11/1999	Barrell of Aquaset SHEAR	*855.25*
PO No. 582	9/10/1999	256 gallon tote of MH2P403 Polymer SHEAR	*3909.12*
PO No. 735	10/5/1999	GAL NCT-1 SHEAR	*1390.25*
		Grand Total	$12,069.04

SCHN00153397

SCHNITZER STEEL INDUSTRIES INC.

Vendor Detail Report

SSP - Portland

For Transactions Between: 1-01-2000 and 12-31-2000

Vendor			Amount
MT. HOOD CHEMICAL CORP.			***$29,275.85***
PO No. 1453	1/24/2000	Gallon Aquasept SHEAR	*2775.3*
PO No. 1725	2/28/2000	GAL OF NCT-1 SHEAR	*1348.95*
PO No. 1841	3/13/2000	GAL OF WASH & WAX	*63.9*
PO No. 2252	5/8/2000	Gallon Aquasept SHEAR	*1900.8*
PO No. 2361	5/23/2000	Gallons NCT-1 SHEAR	*4391.775*
PO No. 2542	6/19/2000	BARREL OF AQUASEPT SHEAR	*770*
PO No. 2587	6/27/2000	40 pound pail of Delete SHEAR	*239.4*
PO No. 2771	7/24/2000	Replaced 4 function valve at cooling pond p/n 5 PART-M SHEAR	*2029.675*
PO No. 2785	7/26/2000	55 GALLON OF D SCALER SHEAR	*734.25*
PO No. 2995	8/23/2000	DC-4500-111A-2 COOLING TOWER CONTROL	*1472*
PO No. 3149	9/14/2000	AQUASEPT SHEAR	*2180.75*
PO No. 3349	10/10/2000	Gallon NCT-1 SHEAR	*1756.7*
PO No. 3452	10/24/2000	Install test polymer and monitor, approximate cost SHARED	*2010.1*
PO No. 3670	11/22/2000	Tote (256 gallons) MH2P-403 polymer ~~SHARED~~	*3909*
PO No. 3681	11/22/2000	55 GAL DISPERSE 8000 ~~SHEAR~~ SHARED	*2593.25*
PO No. 3768	12/5/2000	Gallon Polymer MH 6303 SHARED	*1100*
		Grand Total	$29,275.85

SCHN00153398

SCHNITZER STEEL INDUSTRIES INC.

Vendor Detail Report

SSP - Portland

For Transactions Between: 1-01-2001 and 12-31-2001

Vendor			Amount
MT. HOOD CHEMICAL CORP.			***$10,998.76***
PO No. 3997	1/11/2001	55 GAL AQUASEPT SHEAR	*794.47*
PO No. 4198	2/2/2001	GAL NCT-1 SHEAR	*4276.8*
PO No. 4209	2/5/2001	CASE LUBE X PENETRATING OIL	*61.6*
PO No. 4294	2/14/2001	CASE STRIP-EAZE FLOOR STRIPPER 6GAL	*137.7*
PO No. 4295	2/14/2001	55 gallon drum aquasept SHEAR	*582.75*
PO No. 4359	2/26/2001	12x33oz CLEAR GLASS CLEANER	*28.35*
PO No. 4458	3/12/2001	537355 INJECTION CHECK VALVE ASSY	*220*
PO No. 4595	4/2/2001	MR Sensor #512060	*75*
PO No. 4626	4/5/2001	MHBC DISINFECTANT CLEANER 12X1	*471.75*
PO No. 4840	5/10/2001	SPRAY NOZZLE FOR WINDOW CLEANER BOTTLES	*45.75*
PO No. 5122	6/15/2001	LESS 10% DISCOUNT	*2104.75*
PO No. 5418	7/27/2001	Strip ease	*64.5*
PO No. 5786	9/14/2001	SPRAY NOZZLE FOR WINDOW CLEANER BOTTLES	*103.4*
PO No. 5838	9/21/2001	55 gallon drumMH 6303 — CHECK	*1099.89*
PO No. 6133	10/25/2001	55 GALLONLS OF D SCALE SHEAR	*734.25*
PO No. 6260	11/8/2001	EMPTY BOTTLES FOR DISTRIBUTION CONTROL	*197.8*
		Grand Total	$10,998.76

SCHN00153399

C.C.I.

A Chemical Corporation

March 3, 2002

Mathew Cusma, PE
Environmental Administrator
Schnitzer Steel
Portland, OR

Mat,

Per our last discussion, I have put together the following list of things that will need to happen in order to get started with treating the system.

- ***Dilution Water*** – The mixmate polymer system in the chemical shed will need a water source to dilute the concentrated polymer. There was a possible source just outside of the shed. This water will need to be clean city water or well water in order to prevent fouling of the system.
- ***Polymer Piping*** – The piping from the mixmate system to the clarifier has been removed. The system should be hard piped using PVC.
- ***Order Products*** – My recommendation would be to start with a 55-gallon drum of RO-25 ($507.10) and a 5-gallon pail of CP-9900 ($137.35).

The system is currently set up to activate the chemical pumps when the clarifier feed pump from the drag tank turns on. The coagulant is already set up to feed product into the influent line of the clarifier. C.C.I. representatives will perform all of the polymer PVC piping at no charge to Schnitzer. The only cost to Schnitzer would be the materials.

I will follow up with you later in the week to answer any questions you might have. Feel free to contact me at (503) 807-4050 or by email me at johnpaulw_cci@yahoo.com. Thank you for your time and interest.

Sincerely,

John Williams
District Representative
C.C.I.

C.C.I - Effectively Meeting the Industrial Water Treatment Needs of Our Customers.

C.C.I.

A Chemical Corporation

December 11, 2002

Mathew Cusma, PE
Environmental Administrator
Schnitzer Steel
Portland, OR

Mat,

I hope that you had a wonderful Christmas. I know that holiday weeks tend to be short, and I appreciate you taking the time to meet with me on Monday. The table below breaks down the jar tests that we performed. We looked at an organic/inorganic coagulant versus the previous organic product.

Table 1. Jar Test Procedure

	Jar Test 1	Jar Test 2
Sample Size	900 mls	1000 mls
Coagulant	RO-25	RO-25
Dosage	150-PPM	300-PPM
Polymer	CP-9900	CP-9900
Dosage	0.3 - 0.5-PPM	1.0-PPM

Sample #1 gave as good or better performance than the previous products being used in the system. For sample # 2 we used significantly more product without increased performance. I repeated last weeks test with RO-291 for a side-by-side comparison, the RO-25 gave visibly better performance. We also looked at AP-820, a dry-anionic polymer. The performance was good. However, I would discourage going this route due to the increased maintenance and manpower required to make-down the product. My recommendation would be to use the RO-25 coagulant with the CP-9900 polymer. RO-25 gave better side-by-side performance relative to RO-291 and will give better performance over a wider range of conditions.

Table 2. Product Description and Pricing

Product	Description	Price/gallon	Dosage (PPM)
RO-291	Organic Coagulant	$ 10.17	150
RO-25	Inorganic / Organic Blend	$ 9.22	150
CP-9900	Concentrated Polymer	$ 27.47	6

I have put together some estimated annual costs based on operating 250 days a year with a daily average of 25,000 gallons of water processed. This average is based on daily lows of 10,000 gallons and highs of 40,000 gallons. The total estimated amount of water processed annually would be 6.25 million gallons.

C.C.I.
A Chemical Corporation

Table 3. Estimated Annual Costs

Product	Dosage	Annual Usage (gals)	Annual Cost
RO-25	150-PPM	937.5	$ 8,643.75
CP-9900	1.0 - 2.0-PPM	10	$ 274.70
		Total Annual Costs	$ 8,918.45

Should you have any questions on items presented, please contact me at (503) 807-4050 or by email me at johnpaulw_cci@yahoo.com. Thank you for your time and interest.

Sincerely,

John Williams
District Representative
C.C.I.

C.C.I - Effectively Meeting the Industrial Water Treatment Needs of Our Customers.

16 DEC 02	SSP-IT	M. CUSMA

SHREDDER WATER TREATMENT

PRODUCT	PURCHASE VOLUME	COST	COST/MO.
MH2P-403 (7/99)	256 GAL TOTE	$3909.12	$2,606.08
MH 2P-403 (9/00)	256 GAL TOTE	$3518.10	$2,345.40
MH 6303 (10/00)	55 GAL DRM	$1,222.10	$611.05
MH2P-403 (11/00)	256 GAL TOTE	$3,909.12	$2,606.08
MH6303 (12/00)	55 GAL TOTE	$1100.00	$650.00
MH 6303 (2/01)	55 GAL DM	$1,222.10	
MH 6303 (9/00)	55 GAL DM	$1099.89	

SCHN00153404

MT. HOOD CHEMICAL CORPORATION
4444 N.W. Yeon Avenue
Portland, Oregon 97210
Emergency Phone: 503-227-3505

MATERIAL SAFETY DATA SHEET
PRODUCT NAME: MH – 6300

N/A = NOT APPLICABLE, NA = NOT AVAILABLE
ND = NOT DETERMINED

PRODUCT NAME: **MH-6300** PREPARED BY: K. Woods DATE: March 31,1999

CHEMICAL FAMILY: Copolymer of a quaternary acrylate salt and acrylamide dispersed in mineral oil FORMULA: Proprietary

HAZARDOUS INGREDIENTS (CAS #):	EXPOSURE LIMITS IN AIR:	PPM	mg/M³	REMARKS
Sodium Bisulfite (7631-90-5)			5	
Petroleum Distillates (64742-47-8)	TWA-8 hr.	400	1600	OSHA (naptha)

CARCINOGENIC INGREDIENTS: Contains no known or suspected carcinogens. SARA Title III, Sec. 313 Reportable Ingredients: None

PHYSICAL PROPERTIES:
Boiling Point: about 200°F
Solubility in Water: Soluble , Solubility limited by viscosity
Odor and Appearance: White to off white liquid; slight sulfur dioxide odor
% Volatiles: 62-75
pH: 4.0-6.0
Specific Gravity - Liquid (H_2O = 1): 1.0 –1.02

FIRE AND EXPLOSION DATA:
Flash Point: Over 200°F, TCC
Flammability Limits: LEL: ND, UEL: ND
Extinguishing Media: CO_2, foam, dry chemical
Unusual Hazards:Wetted product presents an extreme slip hazard
Special Firefighting Procedures: Firefighters should wear normal protective equipment. SCBA recommended for confined areas. Cool exposed drums or tanks with water.

HEALTH EFFECTS:
Effects of overexposure: Contact with liquid or vapors may cause mild eye irritation and moderate skin irritation.
Chronic effects of overexposure: None known.
Medical conditions that may be aggravated by exposure: Dermatitis
Primary routes of entry: Skin contact, Eye contact,

EMERGENCY AND FIRST AID PROCEDURES:
Eye Contact: Flush thoroughly with plenty of water for at least 15 minutes with eyelids open. Call a physician.
Skin Contact: Remove contaminated clothing and launder before reuse. Wash affected area well with soap and water.
Ingestion: Call a physician immediately. Do not induce vomitingunless instructed by a physician. Never give anything by mouth to an unconscious person.
Inhalation of mist or vapor: Move to fresh air.

REACTIVITY DATA:
Stability: Stable
Hazardous Polymerization: Will not occur.
Incompatibility: None
Conditions to avoid: None
Hazardous Decomposition Products: Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, ammonia, and/or oxides of nitrogen.

SPILL OR LEAKAGE PROCEDURES:
Steps to be taken if material is released or spilled: Ventilate area well. Remove all ignition sources. Dike area to control runoff and collect spill in appropriate containers. Absorb residual liquid on inert absorbant such as vermiculite. Water wash area to waste treatment system to prevent slip hazard.
Waste disposal method: According to local, state, or federal ordinances. This material, when unadulterated, is not a RCRA regulated waste.

SPECIAL PROTECTION INFORMATION:
Ventilation: Recommended general ventilation
Respiration Protection: Use NIOSH approved respirator for organic vapor and/or mist, if needed to control exposure
Eye Protection: Chemical splash goggles or face shield
Protective Gloves: Impervious gloves
Other Protective Equipment: Provide eye wash stations. Select additional protective equipment (apron, long sleeves, etc.) depending on use.

SPECIAL PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.
Precautions to be taken in handling and storage: Store in closed container away from high temperatures. Wash thoroughly after handling. Do not reuse containers before containers are completely empty, properly cleaned and reconditioned.
Other precautions: None

HAZARD RATING:

Health:	2	0 = Minimal	3 = Serious
Fire:	1	1 = Slight	4 = Severe
Reactivity:	0	2 = Moderate	

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

ANALYSIS REPORT

CLIENT
Tim Todd
Schnitzer Steel Industries, Inc.
P.O. Box 10047
Portland OR 97210

Date Received: 3/6/96
Date Analyzed: 3/12/96
Date Reported: 3/13/96
Job Number: 6602
Page: 1

Project - SSI PDX
Sample Type - Water

Lab Number	6602			
Client Identification	SW-2	Detection Limit	Blank	
Analysis				
	mg/L (ppm)	mg/L (ppm)	mg/L (ppm)	
EPA-418.1	45.4	1.0	ND	
PCB's (EPA 8080)				
Arochlor 1016	ND	0.001	ND	
Arochlor 1221	ND	0.001	ND	
Arochlor 1232	ND	0.001	ND	
Arochlor 1242	ND	0.001	ND	
Arochlor 1248	ND	0.001	ND	
Arochlor 1254	ND	0.001	ND	
Arochlor 1260	ND	0.001	ND	
				Blank Spike
Metals(EPA 7000)				% Recovery
Cadmium	0.10	0.001	ND	100
Chromium	0.13	0.002	ND	93
Lead	2.0	0.4	ND	91

ND = None Detected

Reported By

QA Check

Greg Bolt
Laboratory Manager

CHAIN OF CUSTODY RECORD

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave
Beaverton, OR 97008
Tel 503 626 7626
Fax 503 643 1460

DATE: 3/5/96

Project Manager: Tim Todd
Company Name: SSI
Address: PO Box 10047
City, State, ZIP: Portland, OR 97210
Phone: 286-6944
FAX: 286-6948

P.O. # or Project Number:
Project Name:
Project Location: SSI-Pdx

Lab Project Number:
Lab Location:
RUSH? YES (NO)

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
	SW-2	H2O	PCB-EPA 8080
			Cr, Cd, Pb-
			(total)
			& TPH-418.1

LAB USE ONLY
Additional Analyses:
Requested By:
Date:

Relinquished By	Date/Time	Received By	Date/Time
Tim K. Todd	3/6/96 8:10	[illegible]	3/6/96 8:10
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbus Ave,
Beaverton, OR
97005

Tel 503 626 7424
Fax 503 643 1460

FAX COVER SHEET

Date: 3/14

To: Tim Todd

Company: SSI

FAX #: 286-6948

From: Greg Batt

Amtest - Beaverton
Phone: 503-626-7424
Fax: 503-643-1460

Number of pages including cover sheet: 3

SUBJECT: results

SCHN00153409

CHAIN OF CUSTODY RECORD

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

DATE: 3/5/96

Project Manager: Tim Todd
Company Name: SSI
Address: PO Box 10047
City, State, ZIP: Portland, OR 97210
Phone: 286-6944
FAX: 286-6948

P.O. # or Project Number:
Project Name:
Project Location: SSI-Pdx

Lab Project Number:
Lab Location:
RUSH? YES (NO)

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
	SW-2	H_2O	PCB-EPA 8080
			Cr, Cd, Pb-
			(total)
			& TPH-418.1

LAB USE ONLY
Additional Analyses:
Requested By:
Date:

Relinquished By	Date/Time	Received By	Date/Time
Timothy K. Todd	3/6/96 8:10	[illegible]	3/6/96 8:10
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SCHN00153410

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbus Ave.
Beaverton, OR
97008

Tel 503 626 7424
Fax 503 643 1460

ANALYSIS REPORT

C
L Tim Todd
I Schnitzer Steel Products, Inc.
E P.O. Box 10047
N Portland OR 97210
T

Date Received: 10/20/95
Date Analyzed: 11/1/95
Date Reported: 11/2/95
Job Number: 29311
Page: 1

Project - Stormwater

Sample Type - Water

Lab Number	Client Identification
29311	SW1

Analysis	Results	Detection Limit	Blank
pH (EPA 150.1)	7.1		
Oil & Grease (EPA 413.2)	14 mg/L (ppm)	3.0 mg/L	ND
TSS (EPA 160.2)	130 mg/L (ppm)	5 mg/L	ND
COD (EPA 410.4)	1700 mg/L (ppm)	50 mg/L	ND
Conductivity (EPA 120)	2100 umhos/cm		
TOC (EPA 415.1)	500 mg/L (ppm)	1 mg/L	ND

ND = None Detected

Reported By Hugh Healey

QA Check DAB

Hugh Healey for
Greg Bolt
Laboratory Manager

SCHN00153411

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbus Ave.
Beaverton, OR
97008

Tel 503 626 7424
Fax 503 643 1460

ANALYSIS REPORT

CLIENT
Tim Todd
Schnitzer Steel Products, Inc.
P.O. Box 10047
Portland OR 97210

Date Received: 10/20/95
Date Analyzed: 11/1/95
Date Reported: 11/2/95
Job Number: 29311
Page: 2

Analysis - Metals (EPA 7000 Series)
Sample Type - Water

Project - Stormwater

	Results		Quality Control Information	
Lab Sample Number	29311	Detection	Digestion	Blank
Client Identification	SW1	Limit	Blank	Spike
Metal	mg/L (ppm)	mg/L (ppm)	mg/L (ppm)	% Recovery
Arsenic	**ND**	0.01	ND	104
Cadmium	**0.016**	0.002	ND	93
Chromium	**0.08**	0.01	ND	113
Lead	**0.75**	0.01	ND	102
Mercury	**ND**	0.001	ND	
Nickel	**0.13**	0.01	ND	

ND = None Detected

Hugh O'Healy
Reported By

GB
QA Check

Greg Bolt
Greg Bolt
Laboratory Manager

SCHN00153412

CHAIN OF CUSTODY RECORD

AMTEST

AmTest Inc.
Professional Analytical Services
9205 SW Nimbus Ave.
Beaverton, OR 97008
Tel 503 626 7424
Fax 503 643 1460

DATE:

Project Manager: Tim Todd
Company Name:
Address:
City, State, ZIP:
Phone:
FAX:

P.O. # or Project Number:
Project Name:
Project Location:

Lab Project Number: 29311

Lab Location: R2-53

RUSH? YES NO

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS REQUIRED
29311	SW1	H2O	Conductivity
			(EPA 120.1),
			pH, TSS (EPA
			160.2) COD
			(EPA 410.4),
			Total Oil & Grease
			(SM 5520BF)
			& Cr, Cd, Pb,
			Ni, As, Cd,
			& Hg (7000
			Series)
			TOC

LAB USE ONLY

Additional Analyses:
Requested By:
Date:

Relinquished By	Date/Time	Received By	Date/Time
Timothy R. Todd	10/20/95 0800	Heigh Healey	10/20/95 13:00
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbu
Beaverton, OR
97008

Tel 503 626 742
Fax 503 643 146

INVOICE #13338

B Acct. # 00
I Tim Todd
L Schnitzer Steel Products, Inc.
L P.O. Box 10047
TO Portland OR 97210

Invoice Date: 31-Oct-95
Amount Due: $192.00
Due Date: 3-Dec-95

TERMS: NET 30 DAYS PAST DUE ACCOUNTS 1½ PERCENT INTEREST PER MONTH

Project - Stormwater

Job No.	Client ID
29311	SW1

Description of Charges	Quantity	Unit Price	Amount
Stormwater Permit	1	$192.00	$192.00
		Please Pay This Amount	$192.00

PO # 24996
OK to pay
Tim Todd 11/7/95

BV $167 WC $25

An Equal Opportunity Employer

SCHN00153414

AMTEST

AmTest Inc.

Professional
Analytical
Services

9205 SW Nimbus Ave.
Beaverton, OR
97008

Tel 503 626 7424
Fax 503 643 1460

INVOICE #13338

B Acct. # 00
I Tim Todd
L Schnitzer Steel Products, Inc.
L P.O. Box 10047
TO Portland OR 97210

Invoice Date: 31-Oct-95
Amount Due: $192.00
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TERMS: NET 30 DAYS PAST DUE ACCOUNTS 1½ PERCENT INTEREST PER MONTH

Project - Stormwater

Job No.	Client ID
29311	SW1

Description of Charges	Quantity	Unit Price	Amount
Stormwater Permit	1	$192.00	$192.00
		Please Pay This Amount	$192.00

OK PO# 2496
11/7/95
TRT

BV $167 WC $25

An Equal Opportunity Employer

SCHN00153415

Telefax

HTSV-Vertriebs-GmbH

Rohrauerstr. 5, D-81477 Munich, Germany
Tel.: +49 / 89 / 71056665 Fax: +49 / 89 / 71056661

To:	Schnitzer Steel Mr. Cusma		
Fax-Nr.:			
From:	HTSV-Vertriebs-GmbH Xaver Egginger	Cell: Email:	+49 / 171 / 7 37 91 19 egginger@htsv.info
cc:		Pages: 4 Please call if not fully transmitted!	
RE:		Date:	

Dear Mr. Cusma:

Attached as I mentioned in my email the test report of the ASR we run in our plant.

Sincerely,

Xaver Egginger

Attachments (as mentioned above)

End of Fax

Analyse-Ergebnis auf TASI - Deponieklasse I

Analyse aus dem Eluat. Feinfraktion 0 - 12 mm aus der Shredderung von Karossen und Mischschrott

Parameter	Größe	TASI - Klasse I	Analyse	Grenzwert-überschreitung
ph-Wert	mg/l	5,5 - 13,0	9,7	–
Leitfähigkeit	µs/cm	10.000	434	
EOX	mg/l	0,30	0,06	
AOX	mgCl/l	0,30	0,28	
DOC/TOC	mg/l	20,00	24,00	4,00
Phenolindex	mg/l	0,20	0,18	
Arsen	mg/l	0,20	0,10	
Blei	mg/l	0,20	0,10	
Cadmium	mg/l	0,05	0,01	
Chrom IV	mg/l	0,05	0,05	
Kupfer	mg/l	1,00	0,01	
Nickel	mg/l	0,20	0,02	
Quecksilber	mg/l	0,01	0,001	
Zink	mg/l	2,00	0,02	
Cyanid, leicht freisetzbar	mg/l	0,10	0,01	
Fluorid	mg/l	5,00	0,60	
Ammonium-N	mgN/l	5,00	0,45	

Analyse des Instituts Fresenius vom 23.08.00

Eisenmetall Rohstoff Celler GmbH
Kohlenweg 1
44147 Dortmund

GESAMT SEITEN 01

SCHN00153422

Analyse der Grob- und Feinfraktion aus Shredderleichtfraktion

Parameter	Einheit	Feinfraktion < 12 mm	Grobfraktion 13 - 60 mm
Analyse der Orginalprobe			
Glühverlust 550 C	%	30,500	74,150
Trockenrückstand 105 C	%	97,350	94,150
Cyanid gesamt	mg/kg	0,500	1,000
Schwefel gesamt	%	0,250	0,500
Antimon	mg/kg	175	29
Arsen	mg/kg	33	3
Blei	mg/kg	1.600	850
Cadmium	mg/kg	50	24
Chrom	mg/kg	1.400	415
Chrom(VI)	mg/kg	n.n.	n.n.
Kupfer	mg/kg	15.000	14.250
Nickel	mg/kg	1.005	245
Quecksilber	mg/kg	2,100	1,650
Zink	mg/kg	12.250	16.150
Kohlenwasserstoffe H 18	mg/kg	11.300	29.500
lipophile Stoffe	mg/kg	30.150	54.250
EOX	mg/kg	72	170
TOC	%	18	51
PAK nach EAP im Original			
Naphthalin	mg/kg	1,820	3,855
Acenaphthylen	mg/kg	n.n.	n.n.
Acenaphthen	mg/kg	0,350	1,225
Fluoren	mg/kg	0,635	1,005
Phenanthren	mg/kg	4,050	5,100
Anthracen	mg/kg	1,295	1,110
Fluoranthen	mg/kg	3,750	2,100
Pyren	mg/kg	2,450	3,400
Benzo[a]anthracen	mg/kg	1,080	1,780
Chrysen	mg/kg	1,300	1,545
Benzo[b]fluoranthen	mg/kg	0,885	0,985
Benzo[k]fluoranthen	mg/kg	0,595	0,585
Benzo[a]pyren	mg/kg	1,110	0,770
Dibenz[a,h]anthracen	mg/kg	n.n.	n.n.
Benzo[ghi]perylen	mg/kg	0,855	1,270
Indeno[1,2,3-cd]pyren	mg/kg	0,870	1,335
PAK nach EAP	mg/kg	21,245	29,075
PAK nach TVO	mg/kg	8,065	7,045

Analyse der Grob- und Feinfraktion aus Shredderleichtfraktion

Parameter	Einheit	Feinfraktion < 12 mm	Grobfraktion 13 - 60 mm
PCB			
PCB-028	mg/kg	0,690	0,306
PCB-052	mg/kg	0,485	0,100
PCB-101	mg/kg	0,410	0,070
PCB-138	mg/kg	0,450	0,020
PCB-153	mg/kg	0,330	0,030
PCB-180	mg/kg	0,225	0,020
Summe PCB 028 - PCB 180	mg/kg	2,790	0,546
Analyse vom Eluat			
ph-Wert		8,600	8,600
Leitfähigkeit	uS/cm	540	495
Abdampfrückstand	mg/l	350	505
Chlorid	mg/l	53	54
Cyanid (leicht freisetzbar	mg/l	0,010	n.n.
Fluorid	mg/l	3	2
Nitrit	mg/l	0,070	n.n.
Sulfat	mg/l	69	56
Ammonium (N)	mg/l	1,400	0,280
Arsen	mg/l	0,005	0,000
Blei	mg/l	0,010	0,040
Cadmium	mg/l	0,001	0,004
Chrom	mg/l	n.n.	n.n.
Chrom(VI)	mg/l	n.n.	n.n.
Kupfer	mg/l	0,000	0,385
Nickel	mg/l	n.n.	0,055
Quecksilber	mg/l	n.n.	0,001
Zink	mg/l	0,045	0,775
AOX	mg/l	0,215	0,715
Phenol-Index	mg/l	0,050	n.n.
TOC	mg/l	100	152
Verbrennungsparameter			
Heizwert	kJ/kg	12000	17000

Aussortierter Metallanteil 5%

Die Analysenergebnisse beziehen sich auf die Restfraktion ohne den Metallanteil

Eisenmetall Rohstoff Celler GmbH
Kohlenweg 7
44147 Dortmund

Copy to:
Daniel Lee
Mat C
Jim J
fyi:
TN

HUGO NEU-PROLER COMPANY
WORLDPORT L.A. - METAL RECYCLERS

FACSIMILE TRANSMITTAL SHEET

TO: TOM ZELENKA	**FROM:** GARY SCHNITZER
FAX NUMBER: (503) 299-2277	**DATE:** MARCH 31, 2000
COMPANY: SCHNITZER STEEL INDUSTRIES	**NO. OF PAGES INCLUDING COVER:** 3
RE:	**CC:**

☑ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY

NOTES/COMMENTS:

901 NEW DOCK STREET • TERMINAL ISLAND, CA 90731
PHONE: (310) 831-0281 • FAX: (310) 833-5122

CC Tom Zelenka - SSPGO Portland

txi®

CHAPARRAL STEEL

FINAL NOTICE!

ENVIRONMENTAL COMPLIANCE AGREEMENT

AS A CONDITION OF SUPPLYING MATERIALS FOR RECYCLING TO CHAPARRAL, ALL SELLERS MUST COMPLETE, SIGN AND RETURN THE ATTACHED "ENVIRONMENTAL COMPLIANCE AGREEMENT".

SELLERS MAY MAIL OR FAX THEIR SIGNED AGREEMENT TO:

BUYER / MATERIALS COORDINATOR
TXI CHAPARRAL STEEL
300 WARD ROAD
MIDLOTHIAN, TX 76065
FAX: (972) 779- 1086

PLEASE COMPLETE BOTH SIDES AT THE BOTTOM OF THE AGREEMENT AND RETURN BY MARCH 31, 2000.

SELLERS THAT DO NOT DO SO MAY BE DISQUALIFIED FROM SELLING TO CHAPARRAL STEEL.

PLEASE CONTACT ME IF YOU HAVE ANY QUESTIONS.

PLEASE DO NOT IGNORE THIS NOTICE !!!

R.T. Jaffre
Vice President – Raw Materials
972-779-1080

APPENDIX 1 ENVIRONMENTAL COMPLIANCE AGREEMENT

Hugo Neu-Proler Company, a Seller of Materials for Recycling to Buyer, hereby agrees, warrants and
(Seller's Name)

represents to Buyer that Seller has read, understands and agrees to supply Materials for Recycling in accordance with Buyer's Safety and Environmental Quality Requirements.

Materials for Recycling include but may not be limited to Ferrous Scrap in any form supplied to Buyer for Shredding and / or Remelting.

Seller acknowledges that Buyer may not accept shipments in whole or in part of Materials for Recycling that do not meet Buyer's Safety and Environmental Quality Requirements. Seller also acknowledges that sellers found to violate this Agreement may be disqualified from supplying Materials for Recycling to Buyer. Notwithstanding this Agreement, Buyer shall not be obligated to accept any Materials for Recycling offered for sale by Seller even if Buyer's Safety and Environmental Quality Requirements are met, if such Materials do not otherwise conform to Buyer's specifications. Further, it is specifically understood and agreed that Buyer may, in reliance on the foregoing warranties and representations, accept Materials for Recycling from Supplier, and that such acceptance shall not in any manner waive, renounce or limit any claim by or cause of action of Buyer against Seller for damages, loss, cost or expense directly or indirectly arising out of or resulting from Supplier's breach of these warranties and representations. If Buyer accepts the Materials for Recycling from the Seller, Buyer will pay Seller in accordance with other Agreements with Seller that are in effect at the time Buyer accepts the Materials for Recycling.

Please check one of the options below:

_____ I, the undersigned, request that immediately upon receipt of any shipment that triggers Buyer's radioactivity detection alarm system, that Buyer return or forward such shipment to the destination shown below, at my expense.

_X_ I, the undersigned, authorize Buyer or Buyer's on-site contractor to process shipments that trigger Buyer's radioactivity detection alarm system. I agree to pick up and remove from Buyer's plant site all sources of radiation characterized as Naturally Occuring Radioactive Material ("NORM") that are removed from any shipment sold by me, within 30 days of being notified. If I fail to pick up the sources of radiation characterized as NORM within 30 days, I understand that Buyer will arrange for the forwarding of such material to the destination shown below, at my expense. I also understand that when sources of radiation other than NORM are removed from any shipment sold by me, that Buyer will, at my expense, arrange for the management of such sources in accordance with Buyer's policies and all applicable federal, state and local regulations.

This Agreement shall continue until revoked in writing by either Seller or Buyer, whereupon this Agreement will terminate thirty days after notification is received by the other party.

SELLER

Hugo Neu-Proler
Company Name

Gary Schwitzer Gary Schwitzer
Name Signature

General Manager 3-31-00
Title Date

310. 831-0281 310-833-5122
Telephone Fax

PLEASE FORWARD ALL RADIOACTIVE SHIPMENTS OR SOURCES OF RADIATION CHARACTERIZED AS "NORM" TO:

Company Name

Address

City, State Zip

Telephone Fax

BUYER

TXI Chaparral Steel

R.T. Jaffre, Vice President, Raw Materials

SCHNITZER STEEL INDUSTRIES, INC.

3200 NW Yeon Avenue
P.O. Box 10047
Portland, Oregon 97296-0047
Phone: (503) 224-9900
Fax: (503) 323-2804

MEMORANDUM

DATE: August 7, 2006

TO: FILE: Burgard RI/FS
FILE: Portland Harbor

CC: Tom Zelenka
Jay Robinovitz
Jim Goodrich
Jim Jakubiak

FROM: Mathew Cusma

RE: **August 3, 2006 Site Visit by EPA and DEQ Representatives**

On August 3, 2006, representatives from the US EPA and the Oregon DEQ visited the Schnitzer Steel Products Co. – International Terminals site, including the surrounding areas of Burgard Industrial Park. Agency representatives included Chip Humphrey, US EPA Portland Harbor Project Manager; Jim Anderson, DEQ Portland Harbor Project Manager; and Mike Romero, DEQ Source Control Project Manager responsible for the Burgard Industrial Park. Representing SSP were myself and Ross Rieke, Environmental Consultant with Bridgewater Group.

At the time of the visit, the SSP-IT facility was actively loading a ship at Berth 1 in the slip. In addition, the pavement within the footprint of the new shredder area was being removed and trenching was occurring from the new transformer pad into the yard. The shredder was operational after a significant period of down-time for repairs, and was processing the backlog of feed materials that had accumulated. Finally, several dump trucks were waiting onsite to be loaded with shred for offsite shipment.

Agency representatives were stopped by the guard at Gate 5, and asked to park their vehicle. I picked them up and took them to the Scrap Office to sign them in. We then met in a conference room to discuss their expectations for the visit, and to receive a safety briefing.

All three agency representatives stated that their primary purpose for visiting the site at this time was to gain a better understanding of our operations and the size and layout of the facility and adjacent Burgard Industrial Park properties.

Following a safety briefing, we toured the facility in the general progression of an incoming scrap load, including the trailer sweep-off bins along the entry road, the facility signage and the radiation detector. We then toured to the shredder, the downstream system, the shear, the torch-line and portable shears, and the dock – including ship loading operations and the barge scrapping area. Finally, we toured the leased properties in Burgard Industrial Park.

The following issues and questions were raised by the agency representatives for discussion during the visit:

- Stormwater collection and discharge. The agencies asked about the conveyance system, and in particular, the treatment systems in place for stormwater.

- Shredder feedstock. They were surprised by the accumulation of tin and car bodies at the shredder.
- Fugitive dust emissions. Although the facility roadways were actively being sprayed with water during the visit, there were several sources of emissions that the agencies commented on.
    - Foremost was the rust-colored dust that arose during loading of dump trucks with shred. Jim Anderson raised the possibility of using a fog cannon as they do in other bulk transfer facilities.
    - The agencies also noted the multiple areas in which asphalt was being removed, allowing wind-blown particulates.
- Unpaved areas. The agencies asked about the proportion of the property that was unpaved.
- Shredder water treatment system. The agencies were interested in the treatment system's capacity for handling process water and the potential for water to overflow and discharge to the river.
- River bank. They asked to walk the river bank behind the shredder, and were surprised to see the plantings in the rip-rap (required by the Greenway code).
- Bulk conveyor. The agencies were very interested in the bulk loader – frequency of use, materials transferred, etc. They were under the impression that we used it once or twice per month for shred and ASR, and they were unaware of the BMPs we put in place during its operation.
- ASR constituents and management. The agencies asked about the generation and management of ASR. They asked several questions about the RCRA and TSCA status of the ASR, as well as the PCB levels and possible PCB sources.
- Hazardous waste generator status. The agencies asked what our hazardous waste generator status was. They inquired about the sources of hazardous waste that we generate.
- Ship loading operations. The agencies were clearly impressed with the magnitude of the ship loading operations that were ongoing at the time of the site visit. They commented on the method of using large dump skips to maintain positive control of the scrap metal as it passed from shore to ship's hold.
- Cement truck cleanout. During the site visit, cement trucks were being discharged and hosed out in a bin near the maintenance bay. The agencies asked about the practice, but did not seem overly concerned about it. There was no runoff from the bin at the time of the visit.
- Barge scrapping practices. The agencies asked about our barge scrapping practices, what types of barges we receive, and torch cutting over the water. Torching over the water seemed to be the dominating concern.
- Head of the slip. The agencies were very interested in a groundwater seep exiting the bank at the head of the slip. At the time of the visit, the seep was flowing steadily, and no sheen was observed. The agencies took many photos at this location, and noted that most of the stormwater outfalls were either submerged or covered by brush at this location (OF 18, 19, and 20).
- Portland Blast Media. The agency was confused as to the location of Portland Blast Media. They had the PBM facility located at our existing shredder.

- Stormwater received from upgradient properties. Prior to touring the leased properties, the agencies seemed to be unaware that stormwater runoff was received from the Burgard Road right-of-way and the Northwest Container property, and discharged from Outfall 18 at the head of the slip.
- Mill slag. The agencies made note of the fact that we use a lot of mill slag as railroad ballast and surfacing material. They did not indicate that this was inappropriate.

At the conclusion of the visit, the agencies declined to provide their impressions of the facility, or comment on our operational practices. The duration of the site visit was approximately 2 hours and 45 minutes.

MULT 88646
05-11-2007

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # L 84186

START CARD # 191497

(1) LAND OWNER

Owner Well I.D. L84186

First Name _____ Last Name _____

Company SCHNITZER STEEL INDUSTRIES INC.

Address PO BOX 10047

City PORTLAND State OR Zip 97296

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud [ ] Reverse Rotary [ ] Other _____

(4) PROPOSED USE

[ ] Domestic [ ] Irrigation [ ] Community [X] Industrial/ Commericial [ ] Livestock [ ] Dewatering [ ] Thermal [ ] Injection [ ] Other _____

(5) BORE HOLE CONSTRUCTION

Special Standard [ ] (Attach copy)

Depth of Completed Well 150.00 ft.

BORE HOLE Dia	From	To	Material	SEAL From	To	Amt	sacks/ lbs
12	0	20		0	9	200	
8	20	150		9	14	144	
				14	20	25	

How was seal placed: Method [ ] A [ ] B [X] C [ ] D [ ] E

[X] Other Bentonite Poured

Backfill placed from _____ ft. to _____ ft. Material _____

Filter pack from _____ ft. to _____ ft. Material _____ Size _____

Explosives used: [ ] Yes Type _____ Amount _____

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
(•)	( )	8	[X]	1.5	142	.250	(•)	( )	[X]	[ ]
( )	( )		[ ]				( )	( )	[ ]	[ ]
( )	( )		[ ]				( )	( )	[ ]	[ ]
( )	( )		[ ]				( )	( )	[ ]	[ ]
( )	( )		[ ]				( )	( )	[ ]	[ ]

Shoe [ ] Inside [X] Outside [ ] Other Location of shoe(s) 142

Temp casing [X] Yes Dia 12 From 0 To 20

(7) PERFORATIONS/SCREENS

Perforations Method _____

Screens Type Vibrating Wire Material Stainless Steel

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
		8	140	150	.018			7.5

(8) WELL TESTS: Minimum testing time is 1 hour

( ) Pump ( ) Bailer (•) Air ( ) Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
240		80	1

Temperature 57 °F Lab analysis [ ] Yes By _____

Water quality concerns? [ ] Yes (describe below)

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County _____ Twp 2.00 N/S Range 1.00 E/W WM

Sec 35 1/4 of the _____ 1/4 Tax Lot 500

Tax Map Number _____ Lot _____

Lat ° ' " or _____ DMS or DD

Long ° ' " or _____ DMS or DD

(•) Street address of well ( ) Nearest address

12005 N BURGARD ST

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			[ ]	
Completed Well	03-19-2007		[ ]	17.5

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
03-19-2007	17.5	150	250		[ ]	17.5
					[ ]	
					[ ]	
					[ ]	
					[ ]	

(11) WELL LOG

Ground Elevation _____

Material	From	To
Black Sand & Gravel	0	17
Fine Brown Sand	17	24
Black Fine Sand & Gravel	24	40
Fine Black Sand	40	120
Fine Sand & Gravels	120	135
Fine Black Sand & Wood	135	140
Black Sand & Some Gravel	140	150

Date Started 03-12-2007 Completed 03-19-2007

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1786 Date 05-11-2007

Electronically Filed

Signed JOSEPH R STALOCH (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1523 Date 05-11-2007

Electronically Filed

Signed ROBERT STADELI (E-filed)

Contact Info (optional) _____

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.88

SCHN00153479

ORIGINAL SENT TO BIOLA.
CC: MATT CUSMA, JOSH PHILIP, COREY MULLEN

SCHNITZER STEEL INDUSTRIES, INC.

3200 NW Yeon Avenue
P.O. Box 10047
Portland, Oregon 97296-0047
Phone: (503) 224-9900
Fax: (503) 323-2804
Telex: 289875

January 15, 2007

Mr. Biola Cruse
Environmental Technician
City of Portland Environmental Services
6543 N Burlington Avenue
Portland, Oregon 97203-5452

PROCESS WATER MANAGEMENT RELATED TO NEW SHREDDER OPERATIONS
SCHNITZER STEEL INDUSTRIES - PORTLAND, OREGON

Dear Mr. Cruse:

At your request, Schnitzer Steel Industries (Schnitzer) has prepared this brief letter to summarize the approach Schnitzer will use to manage the process water, including stormwater runoff generated from process areas, associated with the new shredder currently under construction at our Portland facility. As we discussed over the phone, the overall approach is to collect all of the process water and stormwater runoff generated within the new shredder process area and recycle it back into the shredder as process feed water. The new shredder operations will not result in any discharges to the City of Portland's sanitary sewer or to surface water – all water generated and collected within the new shredder area will be recycled as described below.

The new shredder footprint of approximately 3.4 acres will be graded to contain water for treatment, storage and re-use. This footprint will include the shredder itself, as well as storage areas for shredder in-feed and output. All stormwater runoff generated within this area, as well as any excess process water generated by the shredder operations, will collect in a concrete settling pond. From the settling pond, the water will be routed through multiple filters, and the filtered water will then be transferred to a 1 million gallon storage tank. Treated water from the million gallon tank will then be used to supply process water to the shredder.

Process water storage requirements were determined based on the amount of runoff that could be expected, and the amount of water that will be used by the shredder and ancillary shredder operations such as dust control. This evaluation was performed using actual monthly precipitation data for the 10-plus year period beginning in October 1995 and ending in June 2006, including the extreme precipitation periods of late fall/early winter of 1995/1996, late fall/early winter of 1996/1997, and early winter of 2006.

Schnitzer is confident that this zero-discharge approach is the most environmentally beneficial way to manage the process water from the new shredder. If you have any questions regarding this approach or the explanation provided above, please contact me at (503) 286-6982.

Sincerely,

Jamie Wilson
Schnitzer Steel Industries, Inc.
Director of Project Management
jhwilson@schn.com
503 286-6982 Office
503 209-7252 Mobile

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

SCHN00153510

CHAIN OF CUSTODY REPORT

Work Order #

REPORT TO: PES ENVIRONMENTAL
ATTENTION: BRIAN O'NEAL
ADDRESS: 9 LAKE BELLEVUE DRIVE, # 108
BELLEVUE, WA 98005
PHONE: 425/637-1905 FAX: 425/637-1907
PROJECT NAME: PW TREATABILITY
PROJECT NUMBER:
SAMPLED BY: MAT CUSMA

INVOICE TO: SCHNITZER STEEL
ATTENTION: MATHEW CUSMA
ADDRESS: P.O. BOX 10047
PORTLAND, OR 97296-0047
P.O. NUMBER:
NCA QUOTE #:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: [10] Standard | 7 | 5 | 4 | 3 | 2 | 1 | Same Day
Fuels & Hydrocarbon Analyses: [5] Standard | 3-4 | 2 | 1 | Same Day
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

Analysis Request: O&G (EPA 1664) | TSS (EPA 160.2) | % PASS 4 | % PASS 325 M

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	O&G (EPA 1664)	TSS (EPA 160.2)	% PASS 4	% PASS 325 M							MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. 060824 - PW1	8/24/06/0830		X	X	X	X							W	4	
2. 060824 - PW2	8/24/06/0900		X	X	X	X							W	4	
3. 060824 - PW3	8/24/06/0930		X	X	X	X							W	4	
4. 060824 - PW4	8/24/06/1000		X	X	X	X							W	4	
5.															
6.															
7.															
8.															
9.															
10.															

RELINQUISHED BY (Signature): [signature] DATE: 8/24/06
PRINT NAME: MATHEW CUSMA FIRM: SSI TIME: 1030
RECEIVED BY (Signature): DATE:
PRINT NAME: FIRM: TIME:
RELINQUISHED BY (Signature): DATE:
PRINT NAME: FIRM: TIME:
RECEIVED BY (Signature): DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

PAGE 1 OF 1

COC Rev# 100

Client: MaH
Contact: Schnitzer
Address: 12005 N. Burgard Rd
Portland OR
Project:
Phone 1:
Phone 2:
Comments:

TAP PM:
Lab Contact:
Date Requested: 8-18-06

Date Needed: 8-22

Shipping Option:
NCA Courier
Client Pickup
Fed-Ex
UPS

1200Z Storm Water: _____ COLS Storm Water: _____ Other: _____

Required Supplies: COCs: X Custody Seals: X PPE Sticker: _____

5035 additonal supplies: Coolers: X Ice: X Temp Blank: X

Trip Blank Type: Water _____ Soil _____ Sand _____

Water Samples

Container	1 Liter	500ml	250ml	VOA	MS/MSD	Comments	Prep Number
Plastic / None	8	4				Particle size / TSS	
Plastic / HNO3							
Plastic / H2SO4							
Plastic / NaOH							
P / NaOH & Zn Acetate							
Glass / None							
Glass / HCl	4					O/G	
Glass / H2SO4							
Bacti Bottle							
Low Level Hg							

Soil Samples

Container	32oz	16oz	8oz	4oz	2oz	Comments	Prep Number
Teflon Lid							
Septa Lid							
Septa with MeOH							
Hexane Wipe							
DI Wipe							

5035 Low: _____ High: _____ # Sets: _____

Prepared by: SM 8/21/06
Date & Initial

SCHN00153511

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

May 24, 2007

Shredder Building:

TCM replacing of the motor in the supply fan is scheduled to be complete the first week of June.

The punch list items for the shredder is being reviewed by TCM.

The Punch list items for the shredder are being reviewed and completed by General Mechanical.

The rework the roof coating of the shredder building is complete.

Olsson Industrial Electric is in process of placing the cameras designated by operations, in specific areas on the shredder building.

County Line Excavation is continuing site grade preparations for paving the area north of the infeed conveyor as well as around the south radial stacker.

The rotor is scheduled to be reinstalled on Friday, May 25th.

County Line Excavation has completed the installation of the gutter drains for the storage building and motor building.

Storage Building is in process of being erected. The structural steel is erected and the sheet metal and insulation is scheduled for installation Tuesday, May 29th.

Dennis Moore or Buck with Metso Texas Shredder is scheduled to be on site the week of May 29th,

Mueller Engineering is scheduled to be on site the week of June 5th.

Jeff Schaffrath stated that the tolerances for the bearings needed to be 0.01-0.02.

Operations has completed hanging the radiation detection transfer belts.

Operations is in process of conducting the belt tracking for all the conveyor belts.

The milling of the rotor base is scheduled for completion on Thursday, May 24th.

Process Pond:

BMWC has completed running the water line up the south radial stacker for the additional sprayers.

County Line Excavation's work on the underground utilities associated with the process pond is ongoing, while continuing work on the north stormwater piping, screening sand.

Advanced American Construction is in the process of pouring the ductbank has completed pouring the sidewalk around the process pond.

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

May 31, 2007

Shredder Building:

TCM will install upon delivery of fan, the shroud on the motor and the new fan Monday, June 4th.

Olsson Industrial Electric is in process of placing the cameras designated by operations, in specific areas on the shredder building along with additional wiring at the substation.

County Line Excavation is scheduled to asphalt the north side of the shredder building Friday, June 1st.

Storage Building is in process of being erected. The structural steel is erected and the sheet metal and insulation is scheduled for installation June 4th.

Dennis Moore with Metso Texas Shredder is currently on site and is supervising the work on the bearings, coupler, and lining.

Mueller Engineering is scheduled to be on site the week of June 5th.

Monday, June 4th, County Line Excavation is scheduled to place the concrete treated soil south of the ASR bunker.

Process Pond:

The erection of the one million gallon process water tank is scheduled to be complete on June 5th.

Advanced American Construction is in the process of pouring the equipment slab for the process pond.

County Line Excavation will complete site grading for the west end of the process pond on May 30th

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

May 17, 2007

Shredder Building:

TCM is replacing the motor in the supply fan to meet the established requirements.

TCM is in the process of testing and the balancing of the air handlers.

The punch list items for the shredder is being reviewed by TCM.

The Punch list items for the shredder are being reviewed and completed by General Mechanical.

General Mechanical is completed the work on the picking station.
The rework the roof coating of the shredder building is tentatively scheduled to begin Monday.

Olsson Industrial Electric is in process of placing the cameras designated by operations, in specific areas on the shredder building.

County Line Excavation is continuing site grade preparations for paving the area north of the infeed conveyor as well as around the south radial stacker.

The steel for the storage building should be delivered by Friday, May 18th.

The rotor had to be pulled out to machine the base due to an initial unleveled installation.

County Line Excavation is installing the gutter drains for the storage building and motor building.

Process Pond:

T. Bailey inspected the X-ray welding on the 75 thousand gallon process water reservoir tank with successful results while initiating the work on the one million gallon process water reservoir tank which is scheduled for completion June 8th.

BMWC completed testing the process line to the southeast corner of the process pond.

BMWC is currently running the water line up the south radial stacker for the additional sprayers.

County Line Excavation's work on the underground utilities associated with the process pond is ongoing, while continuing work on the north stormwater piping, screening sand.

Advanced American Construction is in the process of pouring the ductbank and sidewalk around the process pond.

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

May 10, 2007

Shredder Building:

TCM is replacing the motor in the supply fan to meet the established requirements.

TCM will complete the testing and the balancing of the air handlers this week.

The punch list items for the shredder is being reviewed by TCM.

The proposals for the fencing for the outdoor transformer and switchgear have been reviewed and installation should be completed by May 30th.

The Punch list items for the shredder are being reviewed and completed by General Mechanical.

General Mechanical is in process of completing the picking station which is scheduled for completion next week.

General Mechanical is having the vendor rework the roof coating due to inconsistencies in the application of the coating.

Olsson Industrial Electric is working with BEST to check the electrical controls and hydraulic equipment while also working with Mueller Engineering to bump the motor and commissioning the liquid rheostat.

Olsson Industrial Electric will begin placing the cameras designated by operations, in specific areas on the shredder building this Friday, May 11th, with work expected to continue through the week of May 14th.

County Line Excavation is continuing site grade preparations for paving the area north of the infeed conveyor as well as around the south radial stacker.

Process Pond:

T. Bailey is currently inspecting the X-ray welding on the 75 thousand gallon process water reservoir tank while initiating the work on the one million gallon process water reservoir tank.

BMWC is continuing underground installation of the process and stormwater lines.

BMWC is currently running the water line up the south radial stacker for the additional sprayers.

BMWC is in the process of installing the plumbing for the 75 thousand gallon process water reservoir tank.

Olsson Industrial Electric is continuing to install the ductbank for power to the process pond and one million gallon reservoir tank.

Advanced American Construction has poured and placed the bollards on the east side of the process pond while the work on the walkway is temporarily on hold awaiting completion of the utility ductbank.

County Line Excavation's work on the underground utilities associated with the process pond is ongoing, while continuing work on the north stormwater piping.

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

May 3, 2007

Shredder Building:

BMWC is in process of installing the fire control piping for the ASR Bunker and completion is scheduled for the week of May 7th.

BMWC has begun installation of the additional sprayers to the south radial stacker.

TCM mounted the controls on Monday, April 30, 2007.

TCM is developing a design for a weather shroud for the motor exhaust fan.

TCM will conduct testing and the balancing of the air handlers the week of May 7th.

BMWC is scheduled to begin installation of the north stormwater piping today.

The punch list for the shredder is continuing to be reviewed by General Mechanical.

General Mechanical is in process of completing the exterior wall to the picking station.

Olsson Industrial Electric is currently working with BEST to check the electrical controls.

Olsson Industrial Electric is in the process of completing miscellaneous electrical issues relating to the motor.

Fencing proposals are under review for the outdoor transformer and switchgear.

County Line Excavation is performing site grade preparations for paving the area north of the infeed conveyor.

Process Pond:

T Bailey is scheduled to complete the work on the 75 thousand gallon process water reservoir tank the week of May 7th.

BMWC is continuing underground installation of the process and stormwater lines.

Advanced American Construction is adding the bollards and the walkway on the east side of the process pond.

County Line Excavation's work on the underground utilities associated with the process pond is ongoing, while continuing work on the north stormwater piping.

PORTLAND SHREDDER WEEKLY PROGRESS REPORT

April 26, 2007

OLD BUSINESS:

The installation of the lighting on the inside and outside of the shredder bldg is ongoing.

Paving activities have begun in the area immediately south and east of the shredder to the access road. Projected completion is the week of April 30th. .

The motor stand is leveled, aligned, and grouted in place. The sorting platform, 7000hp motor and ancillary exhaust fan was placed on Friday, April 20th

NEW BUSINESS:

Shredder Building:

The building punch list and outstanding NCL's are being reviewed by General Mechanical as roof coating activities continued this week and are tentatively scheduled to be completed by the beginning of the week of April 30th.

BMWC has begun installation of the sprayers in the ASR bunker and are continuing process piping work.

TCM began placing the insulation for the HVAC ductwork on Monday and completion is scheduled for Friday, April 27th.

The balance of the remaining HVAC work, including testing and balancing of the air handlers, will begin the week of April 30th by TCM.

BMWC is scheduled to begin installation of the north storm water piping today.

BMWC testing of the process chilled water system inside the building is ongoing.

Process Pond:

AAC completed the exterior wall work by removing the sheet pile for the pond.

The ladder inside the pond has been placed.

Construction activities associated with the sloped access ramp into the process pond is tentatively scheduled for completion by Friday, April 27th.

T Bailey began work on the 75 thousand gallon process water reservoir tank on Monday with expected completion the week of April 30th.

Erection activities associated with the 1 million gallon tank will begin the week of May 7th.

Memorandum

To: File, SSP-IT, Portland, New Shredder

From: Mathew Cusma, Environmental Administrator

Date: April 3, 2007

Re: Use of Site Soils in Concrete Treated Subgrade at New Shredder

---

At the regularly scheduled shredder project update meeting on Thursday, March 29th, Jamie Wilson informed those in attendance that he had received and accepted a recommendation from his project geotechnical and excavation contractors to use an innovative technology for preparing the subgrade for the new pavement to be installed surrounding the shredder. The technology, identified as Cement Treated Subgrade, or CTS, involves screening the soils excavated from the area to be paved, mixing the sandy fraction with dry cement, and then re-laying the mixed material back into the area in compacted lifts. After curing, the resultant subgrade reportedly has a strength that is superior to the use of a crushed rock base. In addition, it is substantially less costly than importing rock, and it minimizes the amount of excavated soils that require offsite disposal.

Use of the excavated site soils in this manner is consistent with the project's pre-existing goal of re-using as much excavated soils as needed for backfill around the structural foundations, which is a typical practice in construction projects of this nature. The soils are being replaced in the same area from which they are excavated, and no soils are imported from offsite.

The uppermost layer of the soils being excavated are intermixed with debris, including metal, rock and wood, from storage activities that have taken place in these previously unpaved areas. This debris layer is being "skinned" off the top and is managed separately in order to recover the metal. The soils excavated from below this debris layer are then fed through a screener to separate the fraction usable in the CTS process. The remaining unusable material will ultimately need to be profiled for offsite disposal.

The excavated soils that have been stockpiled are visually free of staining and appear "clean." There are no data specific to the excavated soils or the excavation area that would indicate a potential for contaminants in the soils being used in the CTS process. In addition, because the soil is being replaced in the location from which it was excavated, and because these replaced soils will then be covered by asphalt and concrete pavements, it is my opinion that sampling of the material is not necessary.

Columbia Inspection, Inc.

P.O. Box 83569
7133 N. Lombard
Portland, OR 97283

Nov 30, 2006

Statement

Customer No: 366-A

Any Questions or Concerns
Please call Kit at:
Phone: (503) 286-9464
or
Fax: (503) 285-7831

TO: Schnitzer Steel
Attn: Matt Cusma
PO Box 10047
Portland, OR 97296

Amount Enclosed
$

Thank You !

Date	Item No.	Due Date	Order No/P.O. No.	Amount
10/30/06	5610197	11/14/06		5,100.00

JAMIE -

SHREDDER SOIL ANALYSIS FOR DISPOSAL

—MAT

Total 5,100.00

CURRENT	0 To 30 Days	30 to 60 Days	*VERY OLD !*
0.00	5,100.00	0.00	0.00

Thank You For Doing Business With CI !!

SCHN00153552

CERTIFICATE OF ANALYSIS

CLIENT: Schnitzer Steel
ATTN: Mat Cusma
P.O. BOX 10047
Portland OR, 97296

PHONE: (503) 286-6944
FAX: (503) 471-4694

PROJECT NAME: SOIL
PROJECT NUMBER: Soil Disposal Shredder
SUBMITTED: 10/20/06 11:50

REPORT DATE: 10/27/06 13:19 REPORT NUMBER: 6102008

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
6102008-01	20061020-SP1	10/20/2006	1100	Soil
6102008-02	20061020-SP2	10/20/2006	1105	Soil
6102008-03	20061020-SP3	10/20/2006	1110	Soil
6102008-04	20061020-SP4	10/20/2006	1115	Soil
6102008-05	20061020-SP5	10/20/2006	1120	Soil

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	**SAMPLE ID: 20061020-SP1**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0245	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.02	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	69	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.298	mg/kg	0.090	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	7.29	mg/kg	0.090	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	4.28	mg/kg	0.0902	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	0.902	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.33	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	ND	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	ND	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		

ORIGINAL

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	**SAMPLE ID: 20061020-SP1**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	132 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	127 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	117 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	67.2	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	67.2		
		AROCHLOR 1232	ND	ug/kg	67.2		
		AROCHLOR 1242	ND	ug/kg	67.2		
		AROCHLOR 1248	ND	ug/kg	67.2		
		AROCHLOR 1254	ND	ug/kg	67.2		
		AROCHLOR 1260	ND	ug/kg	67.2		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	61.2 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	89.7 %	%RECOVERY	50-150		
6102008-02	**SAMPLE ID: 20061020-SP2**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0181	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.0	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.440	mg/kg	0.100	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	140	mg/kg	0.100	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	32.3	mg/kg	0.100	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.3	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.00	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.57	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.042	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.19	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:52

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-02	**SAMPLE ID: 20061020-SP2**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHYLENE	ND	mg/kg	0.1	DM	10/21/2006 00:52
		ANTHRACENE	0.3	mg/kg	0.1		
		BENZO(a)ANTHRACENE	1.0	mg/kg	0.1		
		BENZO(a)PYRENE	0.9	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.8	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.7	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	1.1	mg/kg	0.1		
		CHRYSENE	1.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.4	mg/kg	0.1		
		FLUORANTHENE	2.5	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.6	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	1.3	mg/kg	0.1		
		PYRENE	2.1	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	102 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	99.8 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	59		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	93.2 %	%RECOVERY	50-150		
6102008-03	**SAMPLE ID: 20061020-SP3**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0242	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.2	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.448	mg/kg	0.102	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	37.8	mg/kg	0.102	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	45.0	mg/kg	0.102	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.4	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.02	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.80	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.11	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.28	mg/L	0.040	KEL	10/23/2006 14:03

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-03	**SAMPLE ID: 20061020-SP3**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
SELENIUM, TCLP - ICP	EPA 200.7/6010B	SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 01:36
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	0.2	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.2	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.3	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.2	mg/kg	0.1		
		CHRYSENE	0.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	0.2	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.2	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	0.2	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	138 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	133 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	105 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
6102008-04	**SAMPLE ID: 20061020-SP4**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0198	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.24	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	95	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.665	mg/kg	0.092	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	183	mg/kg	0.092	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	38.1	mg/kg	0.0924	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.18	mg/kg	0.924	KEL	10/23/2006 14:57

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-04	**SAMPLE ID: 20061020-SP4**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.83	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.069	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.74	mg/L	0.040	KEL	10/27/2006 11:05
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 02:21
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	125 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	120 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	121 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	134 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-Dx (soil)	NWTPH-Dx	DIESEL	ND	mg/kg	68	WWS	10/26/2006 15:45
		HEAVY OILS	170	mg/kg	110		
		Surrogate: Heneicosane	88.8 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	57		
		OIL/GREASE	DET	mg/kg	115		
		Surrogate: p-terphenyl-D14	113 %	%RECOVERY	50-150		
6102008-05	**SAMPLE ID: 20061020-SP5**						

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0230	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	7.92	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	71	mg/kg	0.16	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.705	mg/kg	0.079	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	24.9	mg/kg	0.079	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	18.3	mg/kg	0.0792	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.1	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.03	mg/kg	0.792	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	1.0	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	0.034	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.031	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.22	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 03:05
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	0.1	mg/kg	0.1		
		BENZO(a)ANTHRACENE	0.5	mg/kg	0.1		
		BENZO(a)PYRENE	0.8	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.6	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.6	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.6	mg/kg	0.1		
		CHRYSENE	0.6	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.2	mg/kg	0.1		
		FLUORANTHENE	0.9	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.5	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	0.4	mg/kg	0.1		
		PYRENE	0.9	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	99.1 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	91.4 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	60.5	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	60.5		
		AROCHLOR 1232	ND	ug/kg	60.5		
		AROCHLOR 1242	ND	ug/kg	60.5		
		AROCHLOR 1248	ND	ug/kg	60.5		
		AROCHLOR 1254	ND	ug/kg	60.5		
		AROCHLOR 1260	ND	ug/kg	60.5		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	68.3 %	%RECOVERY	50-150		

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	58		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	88.9 %	%RECOVERY	50-150		

Comments:

Sample SP-4 was reextracted and retested for TCLP Lead on 10/26-10/27.

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CERTIFICATE OF ANALYSIS

CLIENT: Schnitzer Steel
ATTN: Mat Cusma
P.O. BOX 10047
Portland OR, 97296

PHONE: (503) 286-6944
FAX: (503) 471-4694

PROJECT NAME: SOIL
PROJECT NUMBER: Soil Disposal Shredder

SUBMITTED: 10/20/06 11:50

REPORT DATE: 10/27/06 13:19 REPORT NUMBER: 6102008

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
6102008-01	20061020-SP1	10/20/2006	1100	Soil
6102008-02	20061020-SP2	10/20/2006	1105	Soil
6102008-03	20061020-SP3	10/20/2006	1110	Soil
6102008-04	20061020-SP4	10/20/2006	1115	Soil
6102008-05	20061020-SP5	10/20/2006	1120	Soil

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	SAMPLE ID: 20061020-SP1						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0245	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.02	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	69	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.298	mg/kg	0.090	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	7.29	mg/kg	0.090	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	4.28	mg/kg	0.0902	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	0.902	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.33	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	ND	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	ND	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	**SAMPLE ID: 20061020-SP1**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	132 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	127 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	117 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	67.2	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	67.2		
		AROCHLOR 1232	ND	ug/kg	67.2		
		AROCHLOR 1242	ND	ug/kg	67.2		
		AROCHLOR 1248	ND	ug/kg	67.2		
		AROCHLOR 1254	ND	ug/kg	67.2		
		AROCHLOR 1260	ND	ug/kg	67.2		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	61.2 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	89.7 %	%RECOVERY	50-150		
6102008-02	**SAMPLE ID: 20061020-SP2**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0181	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.0	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.440	mg/kg	0.100	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	140	mg/kg	0.100	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	32.3	mg/kg	0.100	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.3	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.00	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.57	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.042	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.19	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:52

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-02	**SAMPLE ID: 20061020-SP2**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHYLENE	ND	mg/kg	0.1	DM	10/21/2006 00:52
		ANTHRACENE	0.3	mg/kg	0.1		
		BENZO(a)ANTHRACENE	1.0	mg/kg	0.1		
		BENZO(a)PYRENE	0.9	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.8	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.7	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	1.1	mg/kg	0.1		
		CHRYSENE	1.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.4	mg/kg	0.1		
		FLUORANTHENE	2.5	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.6	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	1.3	mg/kg	0.1		
		PYRENE	2.1	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	102 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	99.8 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	59		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	93.2 %	%RECOVERY	50-150		
6102008-03	**SAMPLE ID: 20061020-SP3**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0242	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.2	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.448	mg/kg	0.102	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	37.8	mg/kg	0.102	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	45.0	mg/kg	0.102	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.4	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.02	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.80	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.11	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.28	mg/L	0.040	KEL	10/23/2006 14:03

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-03	**SAMPLE ID: 20061020-SP3**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
SELENIUM, TCLP - ICP	EPA 200.7/6010B	SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 01:36
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	0.2	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.2	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.3	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.2	mg/kg	0.1		
		CHRYSENE	0.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	0.2	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.2	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	0.2	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	138 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	133 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	105 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
6102008-04	**SAMPLE ID: 20061020-SP4**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0198	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.24	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	95	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.665	mg/kg	0.092	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	183	mg/kg	0.092	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	38.1	mg/kg	0.0924	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.18	mg/kg	0.924	KEL	10/23/2006 14:57

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-04	**SAMPLE ID: 20061020-SP4**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.83	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.069	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.74	mg/L	0.040	KEL	10/27/2006 11:05
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 02:21
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	125 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	120 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	121 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	134 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-Dx (soil)	NWTPH-Dx	DIESEL	ND	mg/kg	68	WWS	10/26/2006 15:45
		HEAVY OILS	170	mg/kg	110		
		Surrogate: Heneicosane	88.8 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	57		
		OIL/GREASE	DET	mg/kg	115		
		Surrogate: p-terphenyl-D14	113 %	%RECOVERY	50-150		
6102008-05	**SAMPLE ID: 20061020-SP5**						

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0230	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	7.92	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	71	mg/kg	0.16	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.705	mg/kg	0.079	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	24.9	mg/kg	0.079	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	18.3	mg/kg	0.0792	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.1	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.03	mg/kg	0.792	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	1.0	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	0.034	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.031	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.22	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 03:05
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	0.1	mg/kg	0.1		
		BENZO(a)ANTHRACENE	0.5	mg/kg	0.1		
		BENZO(a)PYRENE	0.8	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.6	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.6	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.6	mg/kg	0.1		
		CHRYSENE	0.6	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.2	mg/kg	0.1		
		FLUORANTHENE	0.9	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.5	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	0.4	mg/kg	0.1		
		PYRENE	0.9	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	99.1 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	91.4 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	60.5	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	60.5		
		AROCHLOR 1232	ND	ug/kg	60.5		
		AROCHLOR 1242	ND	ug/kg	60.5		
		AROCHLOR 1248	ND	ug/kg	60.5		
		AROCHLOR 1254	ND	ug/kg	60.5		
		AROCHLOR 1260	ND	ug/kg	60.5		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	66.3 %	%RECOVERY	50-150		

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	58		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	88.9 %	%RECOVERY	50-150		

Comments:

Sample SP-4 was reextracted and retested for TCLP Lead on 10/26-10/27.

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CLIENT: Schnitzer Steel
ATTN: Mat Cusma
P.O. BOX 10047
Portland OR, 97296

PHONE: (503) 286-6944
FAX: (503) 471-4694

PROJECT NAME: SOIL
PROJECT NUMBER: Soil Disposal Shredder

SUBMITTED: 10/20/06 11:50

REPORT DATE: 10/27/06 13:19 REPORT NUMBER: 6102008

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
6102008-01	20061020-SP1	10/20/2006	1100	Soil
6102008-02	20061020-SP2	10/20/2006	1105	Soil
6102008-03	20061020-SP3	10/20/2006	1110	Soil
6102008-04	20061020-SP4	10/20/2006	1115	Soil
6102008-05	20061020-SP5	10/20/2006	1120	Soil

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	**SAMPLE ID: 20061020-SP1**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0245	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.02	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	69	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.298	mg/kg	0.090	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	7.29	mg/kg	0.090	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	4.28	mg/kg	0.0902	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	0.902	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.33	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	ND	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	ND	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-01	**SAMPLE ID: 20061020-SP1**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1	DM	10/21/2006 00:07
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	132 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	127 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	117 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	67.2	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	67.2		
		AROCHLOR 1232	ND	ug/kg	67.2		
		AROCHLOR 1242	ND	ug/kg	67.2		
		AROCHLOR 1248	ND	ug/kg	67.2		
		AROCHLOR 1254	ND	ug/kg	67.2		
		AROCHLOR 1260	ND	ug/kg	67.2		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	61.2 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	89.7 %	%RECOVERY	50-150		
6102008-02	**SAMPLE ID: 20061020-SP2**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0181	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.0	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.440	mg/kg	0.100	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	140	mg/kg	0.100	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	32.3	mg/kg	0.100	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.3	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.00	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.57	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.042	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.19	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 00:52

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-02	**SAMPLE ID: 20061020-SP2**						
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHYLENE	ND	mg/kg	0.1	DM	10/21/2006 00:52
		ANTHRACENE	0.3	mg/kg	0.1		
		BENZO(a)ANTHRACENE	1.0	mg/kg	0.1		
		BENZO(a)PYRENE	0.9	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.8	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.7	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	1.1	mg/kg	0.1		
		CHRYSENE	1.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.4	mg/kg	0.1		
		FLUORANTHENE	2.5	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.6	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	1.3	mg/kg	0.1		
		PYRENE	2.1	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	102 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	99.8 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	59		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	93.2 %	%RECOVERY	50-150		
6102008-03	**SAMPLE ID: 20061020-SP3**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0242	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	10.2	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	73	mg/kg	0.20	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.448	mg/kg	0.102	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	37.8	mg/kg	0.102	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	45.0	mg/kg	0.102	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.4	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	ND	mg/kg	1.02	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.80	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.11	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.28	mg/L	0.040	KEL	10/23/2006 14:03

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SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-03	**SAMPLE ID: 20061020-SP3**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
SELENIUM, TCLP - ICP	EPA 200.7/6010B	SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 01:36
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	0.2	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.2	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.3	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.2	mg/kg	0.1		
		CHRYSENE	0.2	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	0.2	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.2	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	0.2	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	138 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	133 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	105 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	20	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	50		
		OIL/GREASE	ND	mg/kg	100		
		Surrogate: p-terphenyl-D14	125 %	%RECOVERY	50-150		
6102008-04	**SAMPLE ID: 20061020-SP4**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0198	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	9.24	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	95	mg/kg	0.18	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.665	mg/kg	0.092	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	183	mg/kg	0.092	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	38.1	mg/kg	0.0924	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.2	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.18	mg/kg	0.924	KEL	10/23/2006 14:57

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-04	**SAMPLE ID: 20061020-SP4**						
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	0.83	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	ND	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.069	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.74	mg/L	0.040	KEL	10/27/2006 11:05
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 02:21
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)ANTHRACENE	ND	mg/kg	0.1		
		BENZO(a)PYRENE	ND	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	ND	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	ND	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	ND	mg/kg	0.1		
		CHRYSENE	ND	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	ND	mg/kg	0.1		
		FLUORANTHENE	ND	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	ND	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	ND	mg/kg	0.1		
		PYRENE	ND	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	125 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	120 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	121 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	50.0	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	50.0		
		AROCHLOR 1232	ND	ug/kg	50.0		
		AROCHLOR 1242	ND	ug/kg	50.0		
		AROCHLOR 1248	ND	ug/kg	50.0		
		AROCHLOR 1254	ND	ug/kg	50.0		
		AROCHLOR 1260	ND	ug/kg	50.0		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	134 %	%RECOVERY	50-150		
General Gas Chromatography Analysis							
NWTPH-Dx (soil)	NWTPH-Dx	DIESEL	ND	mg/kg	68	WWS	10/26/2006 15:45
		HEAVY OILS	170	mg/kg	110		
		Surrogate: Heneicosane	88.8 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	99.2 %	%RECOVERY	50-150		
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	57		
		OIL/GREASE	DET	mg/kg	115		
		Surrogate: p-terphenyl-D14	113 %	%RECOVERY	50-150		
6102008-05	**SAMPLE ID: 20061020-SP5**						

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
Total Mercury by Cold Vapor Atomic Fluorescence							
MERCURY CV AF	EPA 245.7/1631	MERCURY	ND	mg/kg	0.0230	KEL	10/24/2006 13:55
Total Metals by Inductively Coupled Plasma							
ARSENIC - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/kg	7.92	KEL	10/23/2006 13:29
BARIUM - ICP		BARIUM	71	mg/kg	0.16	KEL	10/23/2006 14:57
CADMIUM - ICP		CADMIUM	0.705	mg/kg	0.079	KEL	10/23/2006 13:29
CHROMIUM - ICP		CHROMIUM	24.9	mg/kg	0.079	KEL	10/23/2006 13:29
LEAD - ICP		LEAD	18.3	mg/kg	0.0792	KEL	10/23/2006 13:29
SELENIUM - ICP		SELENIUM	ND	mg/kg	1.1	KEL	10/23/2006 13:29
SILVER - ICP		SILVER	1.03	mg/kg	0.792	KEL	10/23/2006 14:57
Toxicity Characteristics Leachate Procedure (TCLP) Metals							
ARSENIC, TCLP - ICP	EPA 200.7/6010B	ARSENIC	ND	mg/L	0.020	KEL	10/23/2006 14:03
BARIUM, TCLP - ICP		BARIUM	1.0	mg/L	0.020	KEL	10/23/2006 14:49
CADMIUM, TCLP - ICP		CADMIUM	0.034	mg/L	0.020	KEL	10/23/2006 14:03
CHROMIUM, TCLP - ICP		CHROMIUM	0.031	mg/L	0.010	KEL	10/23/2006 14:03
LEAD, TCLP - ICP		LEAD	0.22	mg/L	0.040	KEL	10/23/2006 14:03
SELENIUM, TCLP - ICP		SELENIUM	ND	mg/L	0.070	KEL	10/23/2006 14:03
SILVER, TCLP - ICP		SILVER	ND	mg/L	0.080	KEL	10/23/2006 14:49
Toxicity Characteristics Leachate Procedure (TCLP) Mercury							
MERCURY, TCLP CV AF	EPA 245.7/1631	MERCURY	ND	mg/L	0.000278	KEL	10/24/2006 14:06
Semi-Volatile Organics by Gas Chromatography/Mass Spectroscopy							
PNAH 8270	EPA 8270M (SIM)	ACENAPHTHENE	ND	mg/kg	0.1	DM	10/21/2006 03:05
		ACENAPHTHYLENE	ND	mg/kg	0.1		
		ANTHRACENE	0.1	mg/kg	0.1		
		BENZO(a)ANTHRACENE	0.5	mg/kg	0.1		
		BENZO(a)PYRENE	0.8	mg/kg	0.1		
		BENZO(b)FLUORANTHENE	0.6	mg/kg	0.1		
		BENZO(g,h,i)PERYLENE	0.6	mg/kg	0.1		
		BENZO(k)FLUORANTHENE	0.6	mg/kg	0.1		
		CHRYSENE	0.6	mg/kg	0.1		
		DIBENZO(a,h)ANTHRACENE	0.2	mg/kg	0.1		
		FLUORANTHENE	0.9	mg/kg	0.1		
		FLUORENE	ND	mg/kg	0.1		
		INDENO(1,2,3-cd)PYRENE	0.5	mg/kg	0.1		
		NAPHTHALENE	ND	mg/kg	0.1		
		PHENANTHRENE	0.4	mg/kg	0.1		
		PYRENE	0.9	mg/kg	0.1		
		Surrogate: 2-Fluorobiphenyl	105 %	%RECOVERY	50-150		
		Surrogate: Nitrobenzene-D5	99.1 %	%RECOVERY	50-150		
		Surrogate: p-terphenyl-D14	91.4 %	%RECOVERY	50-150		
Semi-Volatile Organics by Gas Chromatography/ECD							
PCBs 8082	EPA 8082	AROCHLOR 1016	ND	ug/kg	60.5	WWS	10/23/2006 15:08
		AROCHLOR 1221	ND	ug/kg	60.5		
		AROCHLOR 1232	ND	ug/kg	60.5		
		AROCHLOR 1242	ND	ug/kg	60.5		
		AROCHLOR 1248	ND	ug/kg	60.5		
		AROCHLOR 1254	ND	ug/kg	60.5		
		AROCHLOR 1260	ND	ug/kg	60.5		
		Surrogate: 2,4,5,6-Tetrachloro-m-xylene	66.3 %	%RECOVERY	50-150		

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CERTIFICATE OF ANALYSIS

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6102008-05	**SAMPLE ID: 20061020-SP5**						
General Gas Chromatography Analysis							
NWTPH-HCID (soil)	NWTPH-HCID	GASOLINE	ND	mg/kg	23	WWS	10/23/2006 15:01
		DIESEL	ND	mg/kg	58		
		OIL/GREASE	ND	mg/kg	117		
		Surrogate: p-terphenyl-D14	88.9 %	%RECOVERY	50-150		

Comments:

Sample SP-4 was reextracted and retested for TCLP Lead on 10/26-10/27.

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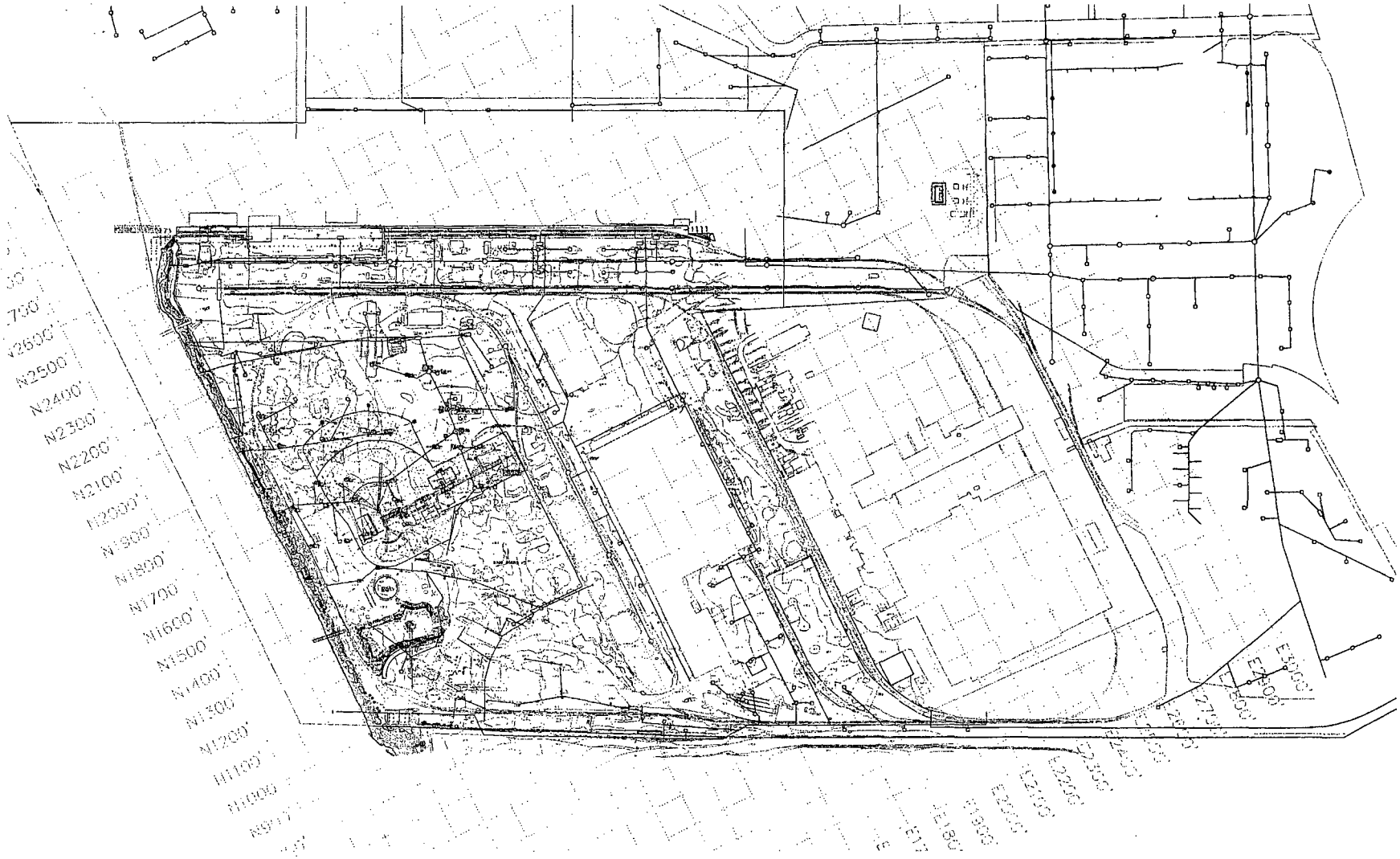

SCHN00153585

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☐ CI Benicia: 4592 E. 2nd St., Benicia, CA 94510 ph: (707) 748-7587
☐ CI San Pedro: 797 Channel St., San Pedro, CA 90731 ph: (310) 833-1557

SCHN00153591

Client Name: SCHNITZER STEEL PRODUCTS	Project Name: SOIL DISPOSAL Project #: SHREDDER
Contact: MAT CUSMA	Purchase Order #:
Address: P.O. Box 10047	Phone: 503.286.6944 Fax: 503.471.4694
City: PTLD State: OR Zip: 97296	Email: MCUSMA@schn.com
TURN AROUND TIME: STANDARD 10 DAY RUSH: X DATE DUE:	Sampled By: MATHEW CUSMA

REQUESTED ANALYSIS

SAMPLE ID	SAMPLE DESCRIPTION/UN NUMBER	SAMPLE MATRIX	SAMPLE DATE	SAMPLE TIME	NWTPH-HCID	PCBs (EPA 8082)	PAHs (EPA 8270)	TCLP RCRA (8) METALS	VOCs (EPA 624)					
20061020-SP1		SOIL	20OCT06	1100	X	X	X	X	X					
20061020-SP2		SOIL	20OCT06	1105	X	X	X	X	X					
20061020-SP3		SOIL	20OCT06	1110	X	X	X	X	X					
20061020-SP4		SOIL	20OCT06	1115	X	X	X	X	X					
20061020-SP5		SOIL	20OCT06	1120	X	X	X	X	X					

Relinquished By:	Received By:	Relinquished By:	Received By:	WORK ORDER#:
Date: 20OCT06 Time: 1150	Date: 10/20 Time: 1150	Date: Time:	Date: Time:	DUE DATE:

White Copy—Laboratory Yellow Copy—Client Copy Chain of Custody Record and Non-Commercial Bill of Lading

Sample Acceptance Policy

All samples must meet the following requirements:

Chain Of Custody (COC)
The COC list of samples, as well as the descriptions, must match the number and type of samples received.

Applicable Containers
The sample containers used must be applicable & acceptable for the product in which is being contained. CI does not assume responsibility for contamination resulting from the use of improper containers.

Sample Volume
The container being used should contain the necessary volume (usually 3/4 capacity fill) in order to analyze without being too full causing leakage and/or possible sample contamination.

Sample Temperature (when applicable)
Samples that require refrigeration shall be considered acceptable if the temperature, as measured upon receipt, is either within 2° Celsius of the required temperature or, the temperature the method specifies. For samples with a specified temperature of 4° Celsius, samples received at temperatures ranging from just above freezing to 6° Celsius shall not be acceptable.

> **NOTE:**
> Samples delivered to CI laboratory shortly after sampling may not meet the above criterion. However, the samples shall be considered acceptable if the samples chilling process began prior to and arrival is indicative of such a process such as transport & arrival on ice or if sampled within 1 hour.

Holding Times
Sample hold times, when applicable, must be adhered to and not allowed to expire to be valid.

Sample Preservation
Where possible without sacrificing integrity of the sample, it shall be determined whether the bottle has been preserved as required.

Discrepancies
If there is doubt as to the suitability for testing, such as the does not conform to the sample description, the sample containers are damaged, leaking or possible contamination from other damaged or leaking sample containers or where testing isn't specified, further instructions from the client are required. If the issue cannot be resolved and the sample does not meet sample acceptance criteria, CI shall either:

- Fully document any decision to proceed with analysis & note the condition of the sample on the COC.
- Retain correspondence and/or records of communications regarding final disposition of rejected samples.

Rejected Samples
CI reserves the right to reject any sample that does not meet the CI sample acceptance protocol as outlined in CI laboratory Policy LP00.01, CI Sample Acceptance Policy and CI SOP 15.01.

Sample Disposal
Samples are disposed of after 45 days unless other prior arrangements have been made with CI. Hazardous samples may either be disposed of prior to the 45 days or returned to the client.

Payment
Payment for analysis is required prior to commencement of analysis unless a credit account with CI has been established. Submitting samples is an agreement to contract for the analysis requested and payment thereof.

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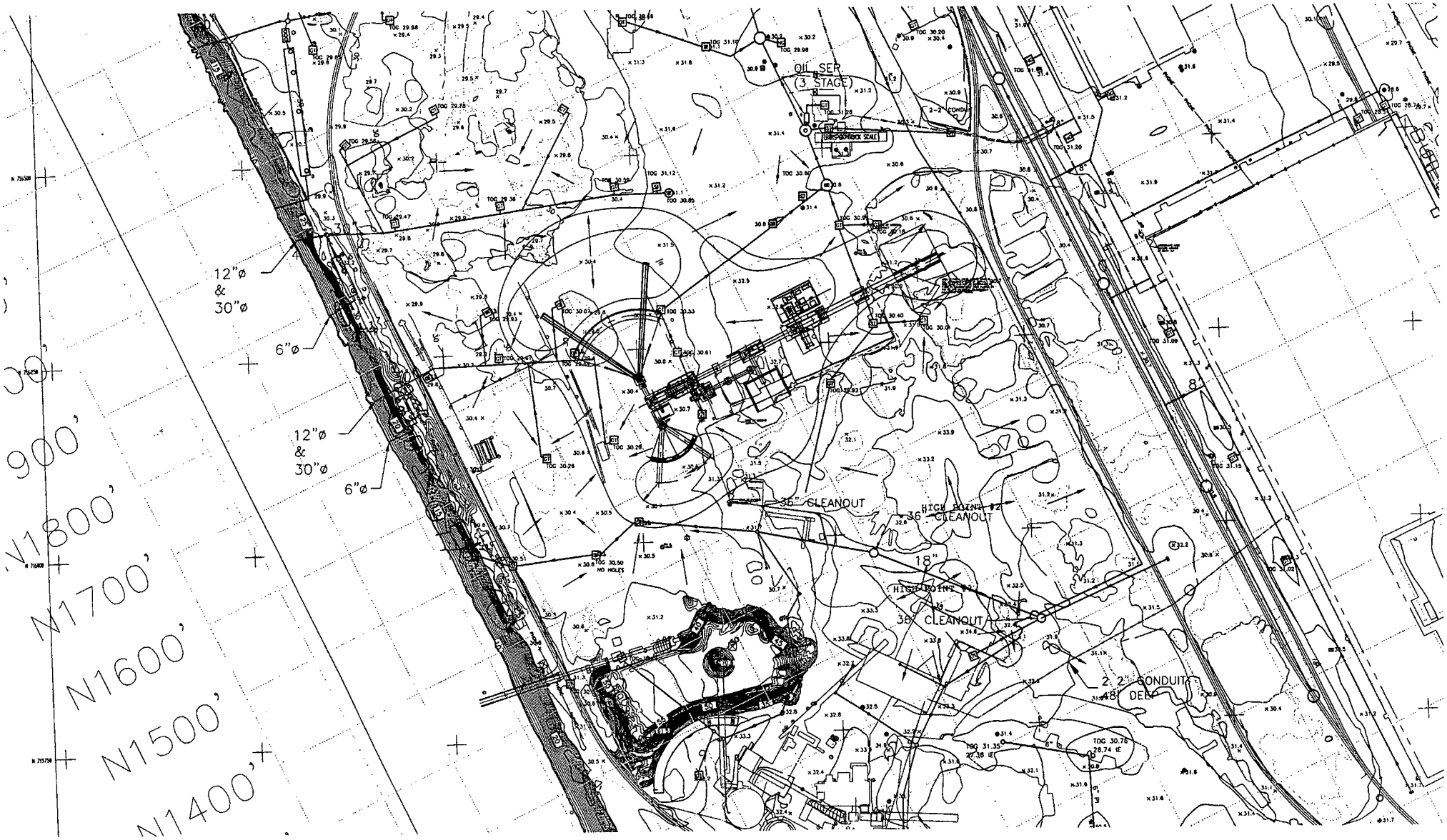

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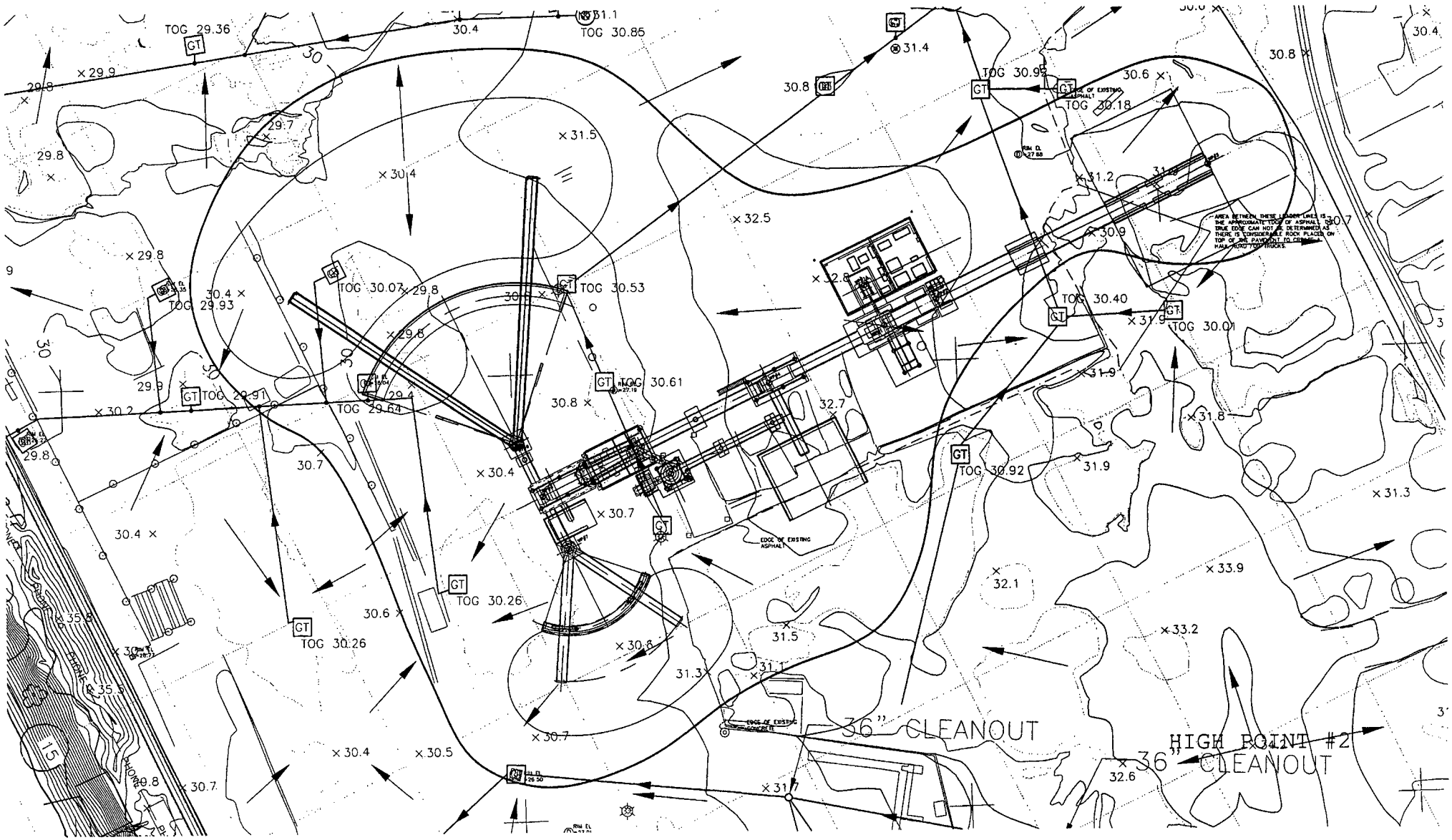

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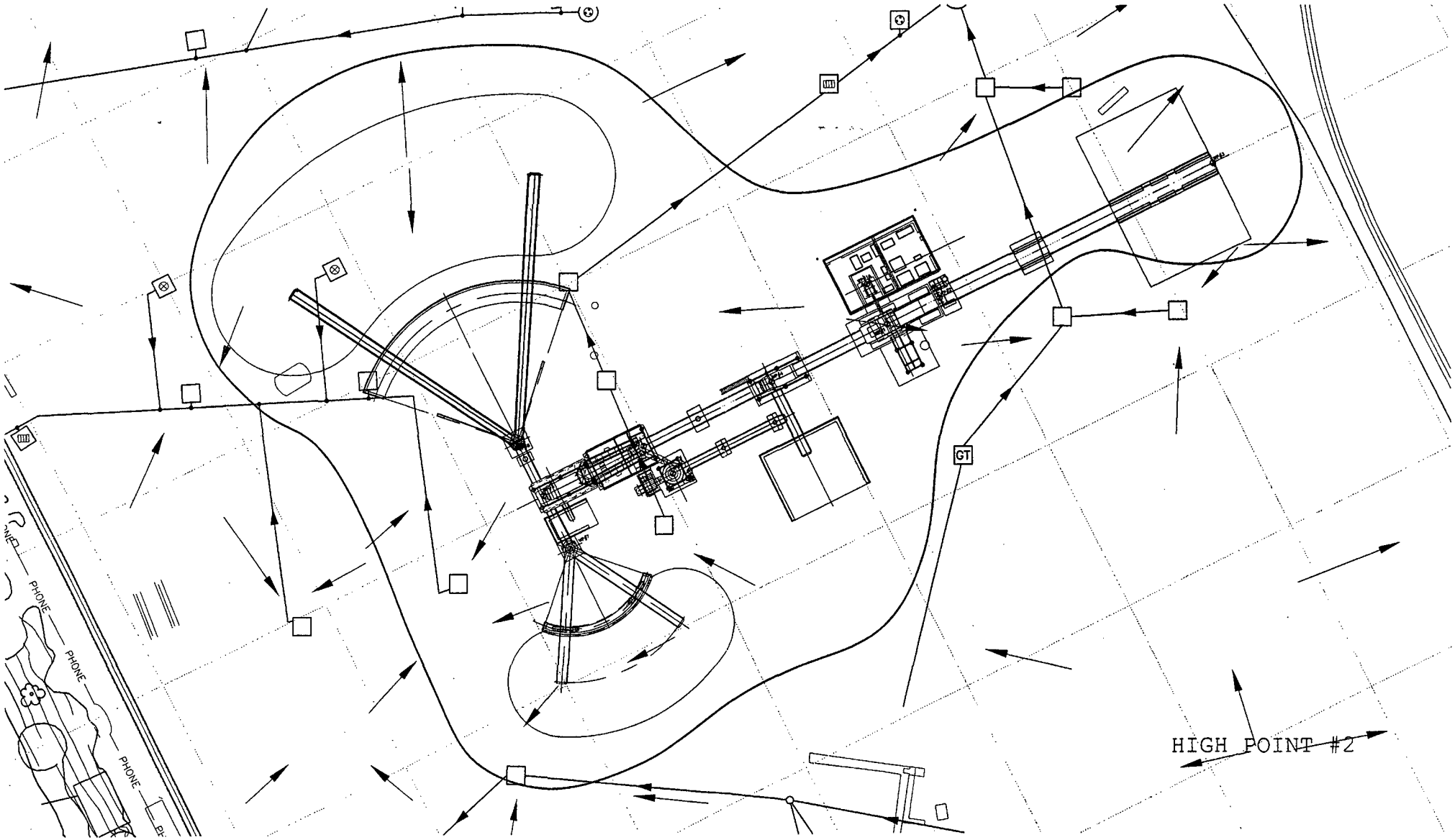

SCHN00153632

SCHNITZER STEEL INDUSTRIES, INC.

Celebrating 100 Years

3200 NW Yeon Avenue
P.O. Box 10047
Portland, Oregon 97296-0047
Phone: (503) 224-9900
Fax: (503) 323-2804

Fax

To:	Pete Larsen	**From:**	Mat Cusma
Fax:	503.692.4759	**Pages:**	2
Phone:	503.692.6400	**Date:**	May 19, 2006
Re:	Well Log	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Pete,

See attached well log for your use in developing cost estimates for installing new well to approximately 150 ft, and abandonment of existing well.

Thanks,

Mat Cusma
503.286.6944
mcusma@schn.com

are to be filed with the

WATER RESOURCES DEPARTMENT,
SALEM, OREGON 97310
within 30 days from the date
of well completion.

WATER WELL REPORT

STATE OF OREGON
(Please type or print)
(Do not write above this line)

APR 18 1979
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 2N/1W-35
State Permit No. MULT 001825

(1) OWNER:

Name Schnitzer Leasing Inc.
Address 3300 N. W. Yeon Ave, P. O. Box 10047
Portland, Oregon 97210 224-9900

(2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☒ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) CASING INSTALLED:

Threaded ☐ Welded ☒
6" Diam. from 0 ft. to 19 ft. Gage .280
6" Diam. from 19 ft. to 135 ft. Gage .312
" Diam. from ft. to ft. Gage

(6) PERFORATIONS:

Perforated? ☐ Yes ☒ No.
Type of perforator used
Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS:

Well screen installed? ☒ Yes ☐ No
Manufacturer's Name UPO Johnson
Type Stainless Steel Model No.
Diam. 5" Slot size 18 Set from 132 ft. to 142 ft.
Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☒ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 75 gal./min. with 1 ft. drawdown after 1 hrs.
Artesian flow g.p.m.
Temperature of water 53° Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Well seal—Material used Cement grout
Well sealed from land surface to 20 ft.
Diameter of well bore to bottom of seal 10 in.
Diameter of well bore below seal 6 in.
Number of sacks of cement used in well seal 16 sacks
How was cement grout placed? Pumped through one inch plastic pipe between 10-inch hole and 6-inch casing.

Was a drive shoe used? ☒ Yes ☐ No Plug Size: location ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County Multnomah Driller's well number 10-79
¼ ¼ Section 35 T. 2N R. 1W W.M
Bearing and distance from section or subdivision corner
Scrap metal shredder/chopper
Terminal 4, Port of Portland

(11) WATER LEVEL: Completed well.

Depth at which water was first found 124 ft.
Static level 21 ft. below land surface. Date 4/11/79
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing --
Depth drilled 142 ft. Depth of completed well 142 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Sand; brown	0	27	
Sand and silt; gray	27	76	
Sand; gray, fine	76	124	
Sand and gravel; gray	124	142	21

Work started April 3, 1979 Completed April 11, 1979
Date well drilling machine moved off of well April 13, 1979

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] Ronald F. McConnell (Drilling Machine Operator) Date April 16, 1979
Ronald F. McConnell
Drilling Machine Operator's License No. 398

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name Steinman Bros. Drilling Co. (Person, firm or corporation) (Type or print)
Address 3023 S. E. Holly Avenue, Milwaukie, Oregon 97222
[Signed] Ronald F. McConnell (Water Well Contractor)
Ronald F. McConnell
Contractor's License No. 626 Date April 16, 1979

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

SCHN00153636

SCHNITZER STEEL PRODUCTS CO.

12005 N Burgard Road, Portland, Oregon 97203
P.O. Box 10047, Portland, Oregon 97210-0047

Transmittal

To: Jamie Wilson

From: Jim Jakubiak

Cc: Jay Robinovitz, Jim Goodrich, Mat Cusma, Tom Zelenka

Date: May 12, 2006

Re: SSI Portland – Air Permitting Evaluation

The air permit evaluation for the Portland facility has been completed. The consultant's report is attached for your use. The good news is that the Portland scrap metal recycling facility does not need an air permit for existing operations or for future operations with the new shredder. This evaluation is based on emission estimates that we believe are appropriate and defensible.

Key criteria for why the facility does not need a permit include:

- Estimated emission calculations were below 10 tons per year for PM.
- Scrap metal recycling is not listed as a specific business category requiring a permit.
- DEQ has not identified the facility as a nuisance or as a facility with opacity or health concerns.

Keep in mind that if any of the operational assumptions change from what has been used to calculate the emissions, the need for a permit may change. Also note, DEQ has wide latitude in requiring a facility to get a permit if the agency determines the facility is a nuisance. Construction of the new shredder will make our operations more visible to our Linton Neighbors and to traffic on the river. Uncontrolled smoke and/or fugitive dust from the mill or conveyors could generate complaints to the agency which could ultimately require us to get a permit, regardless of emission thresholds.

This evaluation is good news and should help expedite the permitting process and construction of a new shredder in Portland. Please call if you have questions.

Air Permitting Evaluation-Portland Scrap Metal Recycling Facility

TO: Jim Jakubiak

FROM: Candee Hatch

DATE: May 11, 2006

Schnitzer Steel Products Company operates a scrap metal processing and recycling facility in Portland, Oregon. As part of environmental management and site planning, an evaluation of air permitting requirements was performed for equipment and processes operating at the scrap metal facility. Results from the air permitting evaluation are summarized in this memorandum.

Air Permitting Criteria

Oregon Department of Environmental Quality (DEQ) regulations detail the permitting requirements for facilities in Portland. The DEQ regulations also encompass federal EPA permitting requirements. The air permitting program has two main types of air permits: an Air Contaminant Discharge Permit (ACDP) for operations with criteria pollutant emissions less than 100 tons/year and a Title V operating permit for operations with emissions greater than 100 tons/year.

ACDPs are required for specific equipment and/or categories of businesses. The regulations list the types and sizes of equipment or business categories requiring permits. A copy of the list from the regulation is provided as Attachment A to this memorandum [OAR 340- If a facility is not a listed category or does not have any of the equipment listed in the regulation, then the need for a permit is based on total emissions from the facility (i.e., air emissions from all equipment and processes operating at a facility). The threshold for Portland is 10 tons/year actual emissions of any criteria pollutant without accounting for air pollution control. For example, a facility operates processes that have a baghouse for particulate control. Actual particulate emissions from the baghouse are 5 tons/year but emissions going into the baghouse (99% efficiency) are 500 tons/year. An ACDP would be required for the facility because the emissions without accounting for air pollution control (baghouse) are greater than 10 tons/year.

The DEQ also can determine that a facility needs an ACDP if the facility causes a nuisance (odor and/or dust), exceeds opacity limits, or creates a health concern.

Inventory of Air Emission Sources

The inventory of air emissions sources operating at the Portland facility are listed in Table 1.

Table 1: Inventory of Air Emission Sources

Source	Operation
Existing shredder	Electric powered automobile and scrap metal shredder. Wet operation. 140 tons/hr throughput. 2400 hours/year operation. No air pollution control.
Annealing furnace 1	Natural gas fired. 2 burners, each at 5 mmBtu/hr rated capacity.

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Source	Operation
Annealing furnace 2	Natural gas fired. 1 burner at 5.78 mmBtu/hr rated capacity. Both furnaces operate a total of 2400 hours/year.
Metal shear	Electric and hydraulic operation. 40 tons/hr throughput. 3000 hours/year operation. Water spray for dust control.
Torch cutting	10 burners for a total 20,000 hours/yr operation.
Primary downstream conveyor	140 tons/hour throughput. 2400 hours/yr operation.
Secondary downstream conveyor	18 tons/hour throughput. 4800 hours/yr operation.
Emergency generator	Diesel fired. Small. Used to back up communications systems. Operated about 1 hour/quarter for testing.
Maintenance	Minor quantities of spray paints and solvents used.
Metal fabrication	Minor amounts of metal work and welding.
Fugitive dust generation	Dust generated from equipment traveling onsite and material storage activities.
Future new shredder	Electric powered Texas shredder. Dry operation. 200 tons/hour throughput. 2400 hours/year operation. Cyclone on Z-box.

All rail and vessel cranes are electric powered and not air emission sources. Mobile sources (trucks, forklifts, etc.) are not included in the inventory for air permitting determinations.

Emission Estimates

Emission estimates were developed for the emission sources listed in Table 1. The estimates were based on equipment size, production throughput and actual hours of operation. Emission factors for these sources were obtained, where available, from published information.

The future new shredder will replace the existing shredder so the emissions will replace the existing shredder emissions.

The estimates of actual air emissions from the Portland scrap metal facility are summarized in Table 2. The calculations are included in Attachment B. Based on these estimates, the shredders are the primary air emission sources of particulate matter (PM) and volatile organic compounds (VOC). The annealing furnaces are the primary sources of nitrogen oxides (NOx) and carbon monoxide (CO).

The shredder emission factors for the existing shredder are based on test data from shredders with different sizes and different air pollution control methods. All of the factors for the existing shredder and torch cutting were obtained from an air permitting workbook used by the Institute of Scrap Recycling Industries, Inc. [Reference: Versar, Title V Applicability Workbook, February 1996]. The annealing furnace emission factors came from EPA for natural gas combustion devices [Reference: EPA AP-42, Section 1.4, July 1998]. The emission factors selected for use in these estimates were the most representative of the source type, size and operation at the Portland facility found in the references. For the existing shredder, an average of the range of emission factors was used.

The PM emission factors for the new shredder are based on a recent source test on a similar unit for the Z-box emission point. No vendor information was provided for the

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hammermill emission point so a published emission rate [Reference: Versar, 1996] was assumed.

The only published emission factors available for the conveyor systems were for aggregate and mineral handling operations. These emission factors do not apply to the materials handled at the Portland scrap metal facility. Based on visual observations and the fact that the materials are either wet or undercover at the conveyor transfer points, PM emissions from the conveyors were assumed to be minor.

Table 2: Estimates of Actual Emissions Without Control for Permit Determination*

Source	PM (tons/year)	NOx (tons/year)	CO (tons/year)	VOC (tons/year)	SO2 (tons/year)
Existing shredder	7.2			0.2	
New shredder	6.1			0.3	
Annealing furnaces	0.1	1.9	1.6	0.1	0.1
Torch cutting	0.6				
Conveyors	Minor				
Metal shear	Minor				
Emergency generator	Minor	Minor	Minor	Minor	Minor
Maintenance	Minor			Minor	
Fabrication	Minor				
Plant Total-Existing	7.9	1.9	1.6	0.3	0.1
Plant Total-Future**	6.8	1.9	1.6	0.4	0.1

* Not required to include mobile sources or fugitive dust sources for permit determination

** Future includes new shredder and excludes existing shredder

Air Permitting Evaluation

Based on the inventory of air emission sources in Table 1, none of the equipment is on the list of sources that need permits (Attachment A). The annealing furnaces are less than the 30 mmBtu/hour threshold for natural gas fired combustion sources. The Portland scrap metal recycling facility is not listed as a specific business category that needs a permit (Attachment A). DEQ has not identified the existing facility as a nuisance or as a facility with opacity or health concerns.

The estimated actual emissions from the facility using actual production and hours of operation and without accounting for air pollution control are less than the 10-ton/yr permitting emission threshold (Table 2). Based on these results, the Portland scrap metal recycling facility does not need an air permit for existing operations or for future operations with the new shredder.

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Attachment A

DEQ Air Permitting Criteria

Division 216 (OAR 340-216-0020)

Table 1

Part A: Activities and Sources

The following commercial and industrial sources must obtain a Basic ACDP under the procedures set forth in 340-216-0056 unless the source is required to obtain a different form of ACDP by Part B or C hereof: (Production and emission parameters are based on the latest consecutive 12 month period, or future projected operation, whichever is higher. Emission cutoffs are based on actual emissions.)

1. ** Autobody Repair or Painting Shops painting more than 25 automobiles in a year.
2. Natural Gas and Propane Fired Boilers (with or without #2 diesel oil back-up(a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989.
3. Bakeries, Commercial baking more than 500 tons of dough per year.
4. * Cereal Preparations and Associated Grain Elevators more than 2,000 but less than 10,000 tons per year throughput.
5. Coffee Roasters roasting more than 6 tons coffee beans in a year, but less than 30 tons/yr.
6. Concrete Manufacturing including Redimix and CTB more than 5,000 but less than 25,000 cubic yards per year output.
7. Crematory and Pathological Waste Incinerators with less than 20 tons/yr. material input.
8. * Flour, Blended and/or Prepared and Associated Grain Elevators more than 2,000 but less than 10,000 tons per year throughput.
9. * Grain Elevators used for intermediate storage more than 1,000 but less than 10,000 tons/yr. throughput.
10. Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries more than one ton/yr. but less than 100 tons/yr. metal charged (not elsewhere identified).
11. Millwork (including kitchen cabinets and structural wood members) more than 5,000 but less than 25,000 bd. ft./maximum 8 hour input.
12. Non-Ferrous Metal Foundries more than one ton/yr. but less than 100 tons/yr. of metal charged.
13. Pesticide Manufacturing more than 1,000 tons/yr. but less than 5,000 tons/yr.
14. Prepared feeds for animals and fowl and associated grain elevators more than 1,000 tons/yr. but less than 10,000 tons per year throughput.
15. Rock, Concrete or Asphalt Crushing both portable and stationary more than 5,000 tons/yr. but less than 25,000 tons/yr. crushed.
16. Sawmills and/or Planing Mills more than 5,000 but less than 25,000 bd. ft./maximum 8 hour finished product.
17. * Seed Cleaning and Associated Grain Elevators more than 1,000 but less than 5000 tons per year throughput, if particulate emission equal or exceed ½ ton/yr. (sources in this Basic permit category that have less than ½ ton of PM emissions are not required to have an ACDP).
18. Surface coating operations whose actual or expected usage of coating materials is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coatings (e.g. powder coating operations).
19. Wood Furniture and Fixtures more than 5,000 but less than 25,000 bd. ft./maximum 8 hour input.

(last revised 3/8/02)

Part B: Activities and Sources

The following commercial and industrial sources must obtain either:

- a General ACDP, if one is available for the source classification and the source qualifies for a General ACDP under the procedures set forth in 340-216-0060;
- a Simple ACDP under the procedures set forth in 340-216-0064; or
- a Standard ACDP under the procedures set forth in 340-216-0066 if the source fits one of the criteria of Part C hereof.

1. Aerospace or Aerospace Parts Manufacturing
2. Aluminum Production - Primary
3. Ammonia Manufacturing
4. Animal Rendering and Animal Reduction Facilities
5. Asphalt Blowing Plants
6. Asphalt Felts or Coating
7. Asphaltic Concrete Paving Plants both stationary and portable
8. Bakeries, Commercial over 10 tons of VOC emissions per year
9. Battery Separator Manufacturing
10. Battery Manufacturing and Re-manufacturing
11. Beet Sugar Manufacturing
12. Boilers and other Fuel Burning Equipment over 10 MMBTU/hr. heat input, except exclusively Natural Gas and Propane fired units (with or without #2 diesel backup) under 30 MMBTU/hr. heat input
13. Building paper and Buildingboard Mills
14. Calcium Carbide Manufacturing
15. *** Can or Drum Coating
16. Cement Manufacturing
17. * Cereal Preparations and Associated Grain Elevators 10,000 or more tons/yr. throughput
18. Charcoal Manufacturing
19. Chlorine and Alkalies Manufacturing
20. Chrome Plating
21. Coffee Roasting (roasting 30 or more tons per year)
22. Concrete Manufacturing including Redimix and CTB 25,000 or more cubic yards per year output
23. Crematory and Pathological Waste Incinerators 20 or more tons/yr. material input
24. Degreasers (halogenated solvents subject to a NESHAP)
25. Electrical Power Generation from combustion (excluding units used exclusively as emergency generators)
26. Ethylene Oxide Sterilization
27. *** Flatwood Coating regulated by Division 232
28. *** Flexographic or Rotogravure Printing subject to RACT
29. * Flour, Blended and/or Prepared and Associated Grain Elevators 10,000 or more tons/yr. throughput
30. Galvanizing and Pipe Coating (except galvanizing operations that use less than 100 tons of zinc/yr.)
31. *** Gasoline Plants and Bulk Terminals subject to OAR 232
32. Gasoline Terminals

(last revised 3/8/02)

33. Glass and Glass Container Manufacturing
34. * Grain Elevators used for intermediate storage 10,000 or more tons/yr. throughput
35. Grain terminal elevators
36. Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries 100 or more tons/yr. metal charged (not elsewhere identified)
37. Gypsum Products Manufacturing
38. Hardboard Manufacturing (including fiberboard)
39. Incinerators with two or more ton per day capacity
40. Lime Manufacturing
41. *** Liquid Storage Tanks subject to OAR Division 232
42. Magnetic Tape Manufacturing
43. Manufactured and Mobile Home Manufacturing
44. Marine Vessel Petroleum Loading and Unloading
45. Millwork (including kitchen cabinets and structural wood members) 25,000 or more bd. ft./maximum 8 hr. input
46. Molded Container
47. Motor Coach Manufacturing
48. Natural Gas and Oil Production and Processing and associated fuel burning equipment
49. Nitric Acid Manufacturing
50. Non-Ferrous Metal Foundries 100 or more tons/yr. of metal charged
51. Organic or Inorganic Chemical Manufacturing and Distribution with ½ or more tons per year emissions of any one criteria pollutant (sources in this category with less than ½ ton/yr. of each criteria pollutant are not required to have an ACDP)
52. *** Paper or other Substrate Coating
53. Particleboard Manufacturing (including strandboard, flakeboard, and waferboard)
54. Perchloroethylene dry cleaners that do not submit a complete Dry Cleaner Annual Hazardous Waste and Air Compliance Report by June 1 of any given year
55. Pesticide Manufacturing 5,000 or more tons/yr. annual production
56. Petroleum Refining and Re-refining of Lubricating Oils and Greases including Asphalt Production by Distillation and the reprocessing of oils and/or solvents for fuels
57. Plywood Manufacturing and/or Veneer Drying
58. Prepared feeds for animals and fowl and associated grain elevators 10,000 or more tons per year throughput
59. Primary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
60. Pulp, Paper and Paperboard Mills
61. Rock, Concrete or Asphalt Crushing both portable and stationary 25,000 or more tons/yr. crushed
62. Sawmills and/or Planing Mills 25,000 or more bd. ft./maximum 8 hr. finished product
63. Secondary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
64. * Seed Cleaning and Associated Grain Elevators 5,000 or more tons/yr. throughput
65. Sewage Treatment Facilities employing internal combustion for digester gasses
66. Soil Remediation Facilities stationary or portable
67. Steel Works, Rolling and Finishing Mills
68. *** Surface Coating in Manufacturing subject to RACT
69. Surface Coating Operations with actual emissions of VOCs before add on controls of 10 or more tons/yr.
70. Synthetic Resin Manufacturing
71. Tire Manufacturing
72. Wood Furniture and Fixtures 25,000 or more bd. ft./maximum 8 hr. input
73. Wood Preserving (excluding waterborne)

(last revised 3/8/02)

74. All Other Sources not listed herein that the Department determines an air quality concern exists or one which would emit significant malodorous emissions
75. All Other Sources not listed herein which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons a year of PM10 if located in a PM10 non-attainment or maintenance area, or 10 or more tons of any single criteria pollutant in any part of the state

Part C: Activities and Sources

The following sources must obtain a Standard ACDP under the procedures set forth in 340-216-0066:

1. Incinerators for PCBs and / or other hazardous wastes
2. All Sources that the Department determines have emissions that constitute a nuisance
3. All Sources electing to maintain the source's baseline emission rate, or netting basis
4. All Sources subject to a RACT, BACT, LAER, NESHAP, NSPS, State MACT, or other significant Air Quality regulation(s), except:
    a. Source categories for which a General ACDP has been issued, and
    b. Sources with less than 10 tons/yr. actual emissions that are subject to RACT, NSPS or a NESHAP which qualify for a Simple ACDP
5. All Sources having the Potential to Emit more than 100 tons of any regulated air contaminant in a year
6. All Sources having the Potential to Emit more than 10 tons of a single hazardous air pollutant in a year
7. All Sources having the Potential to Emit more than 25 tons of all hazardous air pollutants combined in a year

Notes:

* Applies only to Special Control Areas
** Portland AQMA only
*** Portland AQMA, Medford-Ashland AQMA or Salem SKATS only
(a) "back-up" means less than 10,000 gallons of fuel per year

(last revised 3/8/02)

Attachment B

Emission Estimates

Schnitzer Steel- Portland Facility
Existing Shredder Emission Estimates

Operations

Production	140 tons/hr
Hours	2400 hrs/yr
Air pollution control	none
Wet shredder	

Emission Factors*

PM-Hammermill	0.00233	to	0.012	lb/T	(wet w/ scrubber)
PM-Z-box	0.00571		0.00571	lb/T	(wet w/ cyclone)
PM Total	0.00804	to	0.01771	lb/T	(hammermill + Z-box)
PM Total-without control	0.0268	to	0.059033	lb/T	(assumes 70% control efficiency)
VOC	0.00136	lb/T			
HAPs	0.00143	lb/T			

* Reference: Versar, "Title V Applicability Workbook", for Institute of Scrap Recycling Industries, 1996.

Emission Estimates**

PM- with control	2.2	tons/yr	(average of emission factor range)
PM- without control	7.2	tons/yr	(average of emission factor range)
VOC	0.2	tons/yr	
HAPs	0.2	tons/yr	

** Example: tons/hr X hours/yr X emission factor/2000 lb/T

Schnitzer Steel- Portland Facility
New Shredder Emission Estimates

Operations

Production	200 tons/hr
Hours	2080 hrs/yr
Air pollution control	cyclone on Z-box
Dry shredder	

Emission Factors

PM-Hammermill*	0.00257	(dry w/o control)
PM-Z-box**	0.008	(dry w/ cyclone)
PM Total	0.01057	(hammermill + Z-box)
PM Total-without control	0.02924	(assumes 70% control efficiency)
VOC*	0.00136	lb/T
HAPs*	0.00143	lb/T

* Reference: Versar, "Title V Applicability Workbook", for Institute of Scrap Recycling Industries, 1996.
** Reference: Texas Shredder emission information (2003 source test of similar sized unit)

Emission Estimates***

PM	2.2	tons/yr
PM without control	6.1	tons/yr
VOC	0.3	tons/yr
HAPs	0.3	tons/yr

*** Example: tons/hr X hours/yr X emission factor/2000 lb/T

Schnitzer Steel- Portland Facility
Annealing Furnaces Emission Estimates

Operations

Capacity	5.78	mmBtu/hr	1 burner in furnace 1
Capacity	10	mmBtu/hr	2 burners each at 5 mmBtu/hr in furnace 2
Hours	2400	hrs/yr	total for both furnaces
Air pollution control	none		

Emission Factors*

PM	0.0076	lb/mmBtu
NOx	0.100	lb/mmBtu
CO	0.084	lb/mmBtu
VOC	0.0055	lb/mmBtu
SO2	0.0026	lb/mmBtu

* Reference: EPA AP-42, Section 1.4, Table 1.4-1 & 1.4-2, July 1998

Emission Estimates**

PM	0.1	tons/yr
NOx	1.9	tons/yr
CO	1.6	tons/yr
VOC	0.1	tons/yr
SO2	0.05	tons/yr

** Example: mmBtu/hr combined X hours/yr X emission factor/2000 lb/T

Schnitzer Steel- Portland Facility
Torch Cutting Emission Estimates

Operations

Production	20,000	hours/yr	total for 10 burners operating
Air pollution control	none		

Emission Factors*

PM	0.06	lb/hr

* Reference: Versar, "Title V Applicability Workbook", for Institute of Scrap Recycling Industries, 1996.

Emission Estimates**

PM	0.6	tons/yr

** Example: hours/yr X emission factor/2000 lb/T

TABLE 1. PARTICULATE EMISSIONS TEST SUMMARY

Company:
Source:

	Run 1	Run 2	Run 3
Date of Run	8/6/03	8/6/03	8/6/03
Process Rate (TPH)	126	180	160
Start Time (24-hr. clock)	0914	1048	1224
End Time (24-hr. clock)	1028	1158	1337
Vol. Dry Gas Sampled Meter Cond. (DCF)	63.834	44.181	39.030
Gas Meter Calibration Factor	0.998	0.998	0.998
Barometric Pressure at Barom. (in. Hg.)	30.03	30.03	30.03
Elev. Diff. Manom. to Barom. (ft.)	0	0	0
Vol. Gas Sampled Std. Cond. (DSCF)	61.882	42.507	37.618
Vol. Liquid Collected Std. Cond. (SCF)	1.009	2.013	2.367
Moisture in Stack Gas (% Vol.)	1.6	4.5	5.9
Molecular Weight Dry Stack Gas	29.00	29.00	29.00
Molecular Weight Wet Stack Gas	28.82	28.50	28.35
Stack Gas Static Press. (in. H2O gauge)	-0.73	-0.92	-1.00
Stack Gas Static Press. (in. Hg. abs.)	29.98	29.96	29.96
Average Square Root Velocity Head	1.062	0.960	0.844
Average Orifice Differential (in. H2O)	2.704	1.273	1.049
Average Gas Meter Temperature (°F)	89.2	91.4	90.1
Average Stack Gas Temperature (°F)	101.0	105.9	108.1
Pitot Tube Coefficient	0.84	0.84	0.84
Stack Gas Vel. Stack Cond. (ft./sec.)	61.44	56.14	49.55
Effective Stack Area (sq. ft.)	5.90	5.90	5.90
Stack Gas Flow Rate Std. Cond. (DSCFM)	20,179	17,728	15,355
Stack Gas Flow Rate Stack Cond. (ACFM)	21,750	19,873	17,541
Net Time of Run (min.)	70.0	70.0	70.0
Nozzle Diameter (in.)	0.225	0.190	0.190
Percent Isokinetic	93.7	102.7	104.9
Particulate Collected (mg.)	23.0	18.5	16.6
Particulate Emissions (grains/DSCF)	0.006	0.007	0.007
Particulate Emissions (lb./hr.)	**1.0**	**1.0**	**0.9**
Avg. Particulate Emissions (lb./hr.)	**0.97**		
Allowable Particulate Emissions (lb./hr.)	**40.48**		

Note: Standard conditions 68°F, 29.92 in. Hg

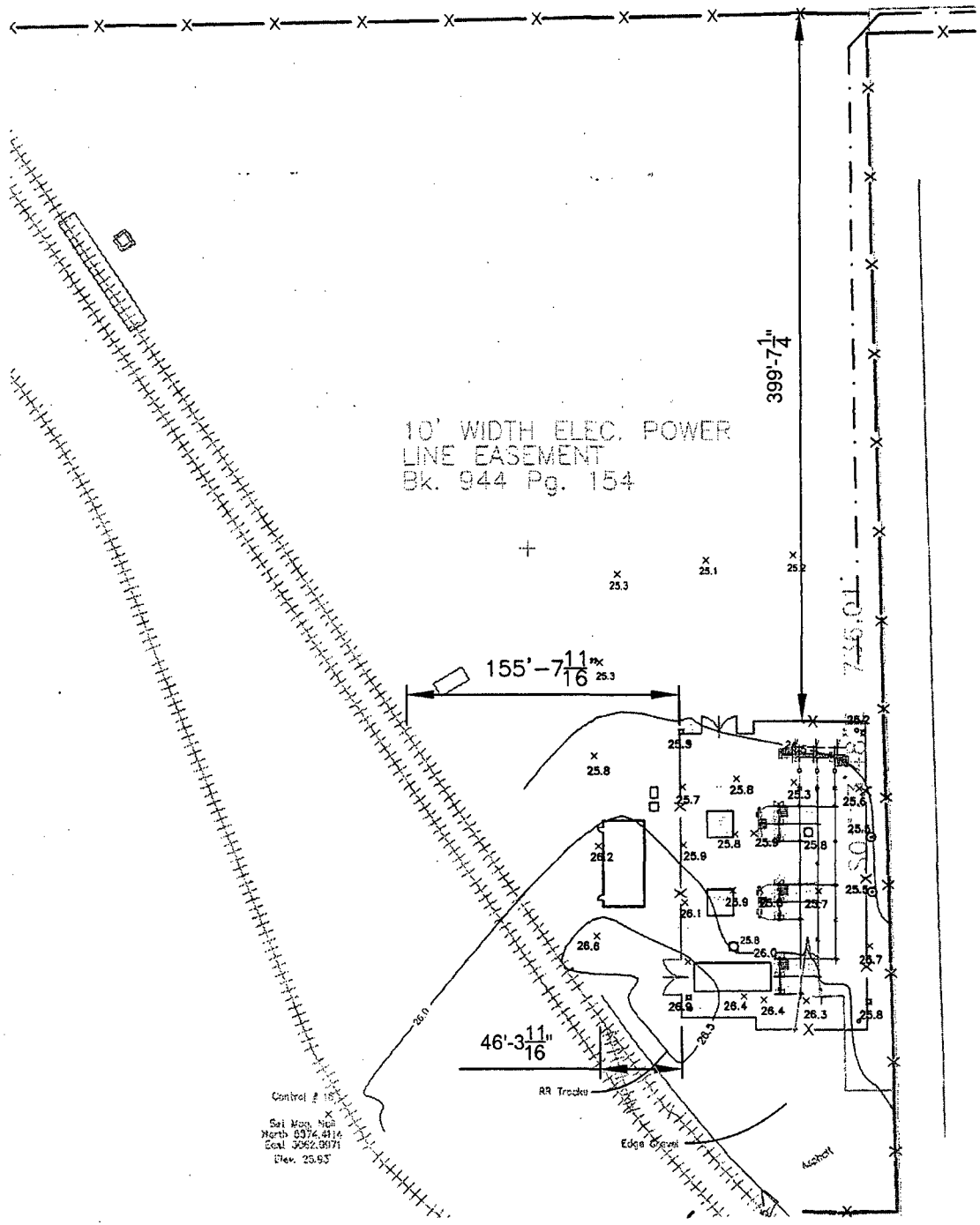
Portland Shredder Project – Storm and Process Water

On February 23, 2006 the Portland Shredder Project selection team unanimously appointed two consulting firms (Smith & Monroe & Gray Engineers and PES Environmental) to help with the planning and evaluation of storm water and process water needs for the Portland facility. Smith & Monroe & Gray (SMG) is currently working on the structural engineering needs for the new Portland shredder and will now expand their scope to include civil engineering; including the overall evaluation of existing and future storm water and process water design and needs for the facility. PES Environmental will assist SMG in the evaluation and will focus their talents on the treatment alternatives and overall site needs. This will include meeting compliance with existing and future DEQ's storm water permit requirements.

In coming to this decision, SSI requested statements of qualification (SOQ) submittals from five firms in the fall of 2005 to help with environmental issues and associated site upgrades. On February 7, 2006, Jamie Wilson evaluated the SOQ's and chose three firms for interviews.

Between February 20 and 22, 2006 the Portland shredder project selection team interviewed the three consulting firms, all of whom are considered highly qualified to complete the project. An evaluation scoring matrix used during the selection process ranked PES number one; Floyd/Snider number 2; and SMG number 3. The selection team included members from Portland I.T. operations, environmental and project management.

An initial conference call meeting with the selected firms was completed on February 24. A site meeting and site walk is scheduled for March 1, 2006 to debrief both firms on our current site conditions while providing an overview of our future site plans.



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SCHNITZER STEEL INDUSTRIES, INC.

3200 NW Yeon Avenue, Portland, Oregon 97210
P.O. Box 10047, Portland, Oregon 97296-0047
(503) 224-9900 FAX (503) 286-6948

February 7, 2006

Mr. Michael Romero
Oregon Department of Environmental Quality
2020 SW Fourth Ave., Suite 400
Portland, OR 97201-4987

Subject: Notice of Drilling, Burgard Industrial Park

Dear Mr. Romero,

In accordance with the terms of the June 2000 Voluntary Agreement for Remedial Investigation and Source Control executed between Schnitzer Investment Corp. and the Oregon Department of Environmental Quality (DEQ), this letter provides notice to the DEQ of geotechnical drilling to be performed at the Burgard Industrial Park in Portland, Oregon.

The purpose of the drilling is to provide geotechnical data in support of the structural engineering and design of a new shredder installation. To obtain the needed information, two cores will be advanced to depths of approximately 100 feet, and a cone penetrometer test will be conducted at a depth of approximately 120 feet. Locations of the cores and cone test are shown on the attached site diagram.

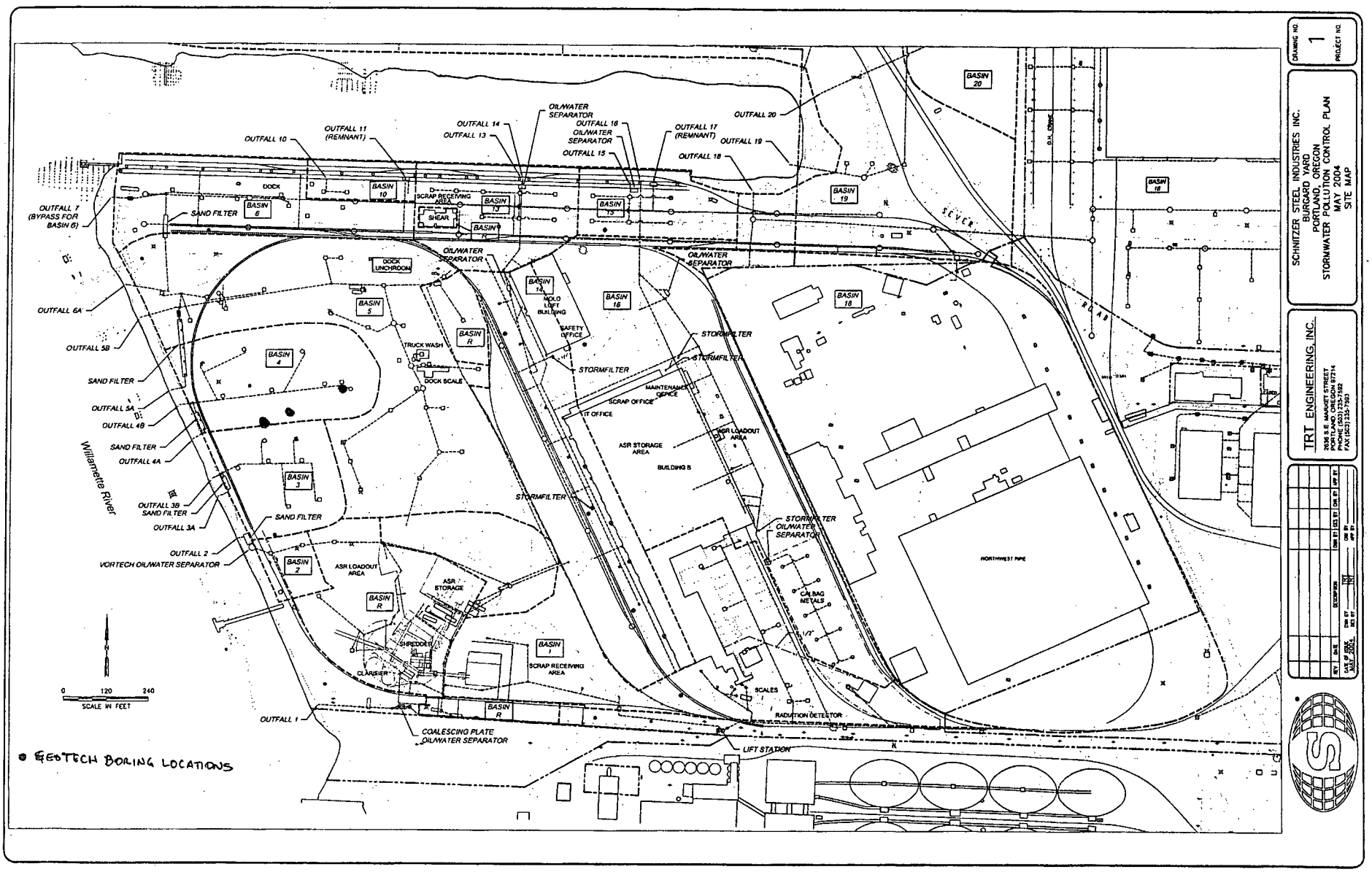
Schnitzer intends to proceed with this work within the next two weeks, depending upon the availability of appropriate drilling equipment.

Please feel free to call me at 503.286.6944 if you have any questions.

Sincerely,

SCHNITZER STEEL INDUSTRIES, INC.

MATHEW J. CUSMA
Environmental Administrator



DRAWING NO. 1
PROJECT NO.

SCHNITZER STEEL INDUSTRIES INC.
BURGARD YARD
PORTLAND, OREGON
STORMWATER POLLUTION CONTROL PLAN
MAY 2004
SITE MAP

TRT ENGINEERING, INC.
2535 S.E. MARKET STREET
PORTLAND, OREGON 97214
PHONE (503) 235-7582
FAX (503) 232-7583

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE: MAY 2004		DWN BY: TRT DES BY: TRT	CHK BY:		APP BY:	

SCHNSP04 5/14/04

SCHN00153713

Millbank Materials USA, Ltd.

From the Office of Cliff Wright
Phone (503) 595-0860 (503)595-0863

Thursday, July 26, 2007

To: Schnitzer Steel Industries

Attn: Chuck Ford

Dear Sirs,

Please accept this as our letter of intent to receive a quantity of fill material from your facility in Portland, Oregon. The material we will accept must be free from any wood or steel (e.g. rebar) and of a size not to exceed 12-14". The material must also be of a Non Radio Active nature and oil free.

We will however accept any type of materials as shown on inspection trip, as long as it is delivered to our yard and no more than 20-25 truck loads at a time.

Our hours of operation are 7:30 AM – 3:30 PM Monday through Friday.

This material will be used by our company for fill purposes holding Schnitzer Steel Industries harmless from any or all actions resulting as to this procedure.

Sincerely,

Cliff Wright
Maintenance Superintendent
Millbank Materials USA

Mailing Address: **15540 N. Lombard Street Portland, Oregon 97203**
Main Phone: **(503) 595-0860 Fax Line (503) 595-0863**
E-mail: **tmartin@millbankmat.com**

SCHNITZER STEEL INDUSTRIES, INC.
PO Box 10047, Portland, Oregon 97210 Phone (503) 244-9900 FAX (503) 323-2804

August 30, 2007

VIA FACSIMILE

Mr. Cliff Wright
Millbank Materials USA, Ltd.
15540 N. Lombard Street
Portland, OR 97203

Re: Transfer of Materials

Dear Mr. Wright:

This letter describes the agreement of Schnitzer Steel Industries, Inc. ("SSI") and Millbank Materials USA, Ltd. ("Millbank") with respect to the transfer of material from SSI to Millbank for use by Millbank as industrial fill.

1. Millbank has agreed to accept fill material from SSI's Portland, Oregon facility (the "Material"), provided that the Material meets the following criteria:

   a) The Material must be free from any wood or steel (e.g. rebar) and of a size not to exceed 12-14"; and

   b) The Material must not be radioactive; and

   c) The Material must be free of oil.

2. Material meeting this criteria and of the type usually generated at the SSI facility, as shown to Millbank during their inspection of the facility, will be accepted by Millbank. Material shall be delivered by SSI to Millbank's yard during Millbank's normal hours of operation. Title to the Material shall pass to Millbank upon delivery to Millbank's yard.

3. Millbank will not accept more than 25 truckloads of Material from SSI at one time.

4. Millbank will use the Material only for the purpose of industrial fill and for no other purpose.

5. Except as provided in Section 1, SSI gives no warranties whatsoever, either express or implied, as to the quality of the Material or its fitness for Millbank's intended use. SSI EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

6. Millbank will indemnify, defend and hold harmless SSI from and against any claim, liability or expense arising from or related to the storage, use or disposal of the Material following its delivery to Millbank.

Please signify your agreement by signing and returning a copy of this letter.

Very truly yours,

Mathew Cusma
Environmental Administrator

Accepted and agreed this ____ day of _____, 2007.

MILLBANK MATERIALS USA, LTD.

By:_____

Name: _____

Title: _____

SCHNITZER STEEL INDUSTRIES, INC.
PO Box 10047, Portland, Oregon 97210 Phone (503) 244-9900 FAX (503) 323-2804

August 30, 2007

VIA FACSIMILE

Mr. Cliff Wright
Millbank Materials USA, Ltd.
15540 N. Lombard Street
Portland, OR 97203

Re: *Transfer of Materials*

Dear Mr. Wright:

This letter describes the agreement of Schnitzer Steel Industries, Inc. ("SSI") and Millbank Materials USA, Ltd. ("Millbank") with respect to the transfer of material from SSI to Millbank for use by Millbank as industrial fill.

1. Millbank has agreed to accept fill material from SSI's Portland, Oregon facility (the "Material"), provided that the Material meets the following criteria:

   a) The Material must be free from any wood or steel (e.g. rebar) and of a size not to exceed 12-14"; and

   b) The Material must not be radioactive; and

   c) The Material must be free of oil.

2. Material meeting this criteria and of the type usually generated at the SSI facility, as shown to Millbank during their inspection of the facility, will be accepted by Millbank. Material shall be delivered by SSI to Millbank's yard during Millbank's normal hours of operation. Title to the Material shall pass to Millbank upon delivery to Millbank's yard.

3. Millbank will not accept more than 25 truckloads of Material from SSI at one time.

4. Millbank will use the Material only for the purpose of industrial fill and for no other purpose.

5. Except as provided in Section 1, SSI gives no warranties whatsoever, either express or implied, as to the quality of the Material or its fitness for Millbank's intended use. SSI EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

6. Millbank will indemnify, defend and hold harmless SSI from and against any claim, liability or expense arising from or related to the storage, use or disposal of the Material following its delivery to Millbank.

Please signify your agreement by signing and returning a copy of this letter.

Very truly yours,

Mathew Cusma
Environmental Administrator

Accepted and agreed this 30 day of AUGUST, 2007.

MILLBANK MATERIALS USA, LTD.

By: [signature]

Name: CLIFFORD V WRIGHT

Title: Maintenance Superintendent.

SSI Portland Overall Site Stormwater Evaluation
Objectives, Conceptual Approach, and Major Issues

Objectives for Stormwater Management at SSI Portland

Long-Term Objectives

1. Comply with applicable stormwater regulations and requirements;
   a. Meet current General Permit benchmarks
   b. Have ability to meet potential future limits – UPGRADABLE
2. Limit future liabilities relative to Willamette River and Portland Harbor Superfund site;
3. Limit discharges to and regulation by City of Portland (COP), both stormwater and sanitary departments; and
4. Minimize ongoing operations and maintenance (O&M) costs.

Short-Term Objectives (1-3 years)

1. Comply with existing General Permit benchmarks and requirements;
2. Address "priority" runoff areas first (e.g., new shredder intake areas);
3. Integrate implementation of stormwater management approach with operations and Portland yard reconfiguration; and
4. Minimize capital costs.

Drainage Area Description: Schnitzer Operational Areas except new shredder drainage and Drainage Basins 19 and 20
Drainage Area Size (ac): 55.5

Rainfall Event Information								
Duration	Precipitation (in.)	Basis	Runoff Volume (gal)	Treatment Rate (gpm)	Treatment Capacity (gpd)	Time to Treat Event (hr)	Storage Capacity (gal)	Storage Basis
24-hour	0.83	Minimum per City	1,256,000	500	720,000	42	536,000	Total Runoff minus 24-hours of treatment
				1,000	1,440,000	21	-	same
	1	1-inch event	1,514,000	500	720,000	50	794,000	same
				1,000	1,440,000	25	74,000	same
	3.9	25-year design storm	5,903,000	500	720,000	197	5,183,000	same
				1,000	1,440,000	98	4,463,000	same
				1,500	2,160,000	66	3,743,000	same
				2,000	2,880,000	49	3,023,000	same
	4.4	100-year design storm	6,660,000	500	720,000	222	5,940,000	same
				1,000	1,440,000	111	5,220,000	same
				1,500	2,160,000	74	4,500,000	same
				2,000	2,880,000	56	3,780,000	same
1 week	7	Historical "bad" week	10,595,000	500	720,000	353	5,555,000	Total runoff minus 7 days treatment
				1,000	1,440,000		515,000	same
				1,500	2,160,000		(4,525,000)	same
				2,000	2,880,000		(9,565,000)	same
1 Month	6.75	Worst average month (December)	10,216,000	500	720,000	341	(584,000)	Total runoff minus 15 days treatment
	10	"Reasonable" worst case	15,135,000	500	720,000	505	4,335,000	Total runoff minus 15 days treatment
				1,000	1,440,000	252	(6,465,000)	
	13	Worst Case	19,676,000	500	720,000	656	8,876,000	Total runoff minus 15 days treatment
				1,000	1,440,000	328	(1,924,000)	
Annual	43	Average Annual	65,082,000					
	60	Worst Case Annual	90,812,000					

SCHN00153734

Drainage Area Description: Drainage Basins 19 and 20 only
Drainage Area Size (ac): 15.7

Rainfall Event Information								
Duration	Precipitation (in.)	Basis	100% Runoff Volume (gal)	Treatment Rate (gpm)	Treatment Capacity (gpd)	Time to Treat Event (hr)	Storage Capacity (gal)	Storage Basis
24-hour	0.83	Minimum per City	355,000	500	720,000	12	(365,000)	Total Runoff minus 24-hours of treatment
				1,000	1,440,000	6	-	same
	1	1-inch event	428,000	500	720,000	14	(292,000)	same
				1,000	1,440,000	7	(1,012,000)	same
	3.9	25-year design storm	1,670,000	500	720,000	56	950,000	same
				1,000	1,440,000	28	230,000	same
				1,500	2,160,000	19	(490,000)	same
				2,000	2,880,000	14	(1,210,000)	same
	4.4	100-year design storm	1,884,000	500	720,000	63	1,164,000	same
				1,000	1,440,000	31	444,000	same
				1,500	2,160,000	21	(276,000)	same
				2,000	2,880,000	16	(996,000)	same
1 week	7	Historical "bad" week	2,997,000	500	720,000	100	(2,043,000)	Total runoff minus 7 days treatment
				1,000	1,440,000		(7,083,000)	same
				1,500	2,160,000		(12,123,000)	same
				2,000	2,880,000		(17,163,000)	same
1 Month	6.75	Worst average month (December)	2,890,000	500	720,000	96	(7,910,000)	Total runoff minus 15 days treatment
	10	"Reasonable" worst case	4,282,000	500	720,000	143	(6,518,000)	Total runoff minus 15 days treatment
				1,000	1,440,000	71	(17,318,000)	
	13	Worst Case	5,566,000	500	720,000	186	(5,234,000)	Total runoff minus 15 days treatment
				1,000	1,440,000	93	(16,034,000)	
Annual	43	Average Annual	18,411,000					
	60	Worst Case Annual	25,689,000					

SCHN00153735

Westlake consultants, inc

MEMORANDUM

ENGINEERING ♦ SURVEYING ♦ PLANNING

Phone: 503 684-0652

Date: November 16, 2006

To Attendees:

Northwest Container Services (NWCS):
Wayne Plaster, District Manager-Portland
Jeffrey Condit, Miller Nash, legal counsel

Schnitzer Steel (Schnitzer):
Ann Gardner, Government Relations Manager
Mathew Cusma, P.E.
Steve Abel, Stoel Rives, legal counsel

Westlake Consultants, Inc. (Westlake):
Lee Leighton, Director of Planning
Pat Tortora, P.E., Project Manager
James Nicita, Senior Planner

From: Lee Leighton, AICP

Re: Notes from NWCS/Schnitzer Steel Work Session 11/15/06
(Northwest Container Services, WCI#: 1528-002)

The group met at NWCS at 8:30 a.m. on Wednesday, November 15, 2006 to discuss Schnitzer's concerns about stormwater flows through its property en route to the Willamette River. Schnitzer has documented several such flows, from a variety of surrounding properties as well as from public rights-of-way. Mathew Cusma provided the group with copies of excerpted material from the Schnitzer Investment Corp./Burgard Industrial Park Stormwater Management Plan, dated December 20, 2005, by Floyd | Snider.

Storm drainage flows from NWCS enter the Schnitzer property by way of culvert discharges to the ditch on the east side of N Burgard Road, where catch basins collect stormwater and discharge it from the public right-of-way onto the Schnitzer property. There is also a flow that crosses under the existing Burgard Road bridge that spans the former railroad ravine north of the N Terminal Road intersection.

Lee Leighton presented drawings for the fill placement in the triangular area northeast of the Burgard/Terminal Road intersection, which were prepared by Westlake in 2001, The drawings include an existing conditions survey showing the former buildings occupied by Harris Enterprises prior to NWCS's acquisition of that property (Tax Lots 1400 and 1500, Tax Map 2N 1E 35D). The

existing conditions drawing indicates that fill material and the underground pipe system that conveys storm drainage to a point just east of the Burgard Road bridge had been put in place prior to NWCS's acquisition. The fill placement by NWCS in 2001 elevated the site grade to match with its existing activity area, but resulted in only a marginal difference in the amount of impervious surface being drained by that underground pipe system.

The Schnitzer representatives explained that Schnitzer was concerned not just about the volume of stormwater crossing the Schnitzer property, but even more importantly about its efforts to comply with water quality issues related to the Superfund designation of the Portland Harbor and related cleanup efforts. Matt Cusma presented the Floyd | Snider study excerpt to the group, including a map showing the approximate area that drains to "Outfall 18." That area collects stormwater runoff from the Schnitzer property, Lampros Steel, Northwest Pipe Company, a segment of N Burgard Road, a western portion of the NWCS site (the precise boundary of which is uncertain), and the flow from the outfall east of the Burgard Bridge, discussed above. Schnitzer is currently negotiating the parameters for monitoring the levels of various chemical compounds at Outfall 18 with the Oregon Department of Environmental Quality (DEQ).

Ann Gardner added that the parties should work together to press the City of Portland and Metro to prioritize safety-related improvements in the street system in the area, and within that process to have the City deal appropriately with storm drainage that flows onto the Schnitzer site from the N Burgard Road right-of-way.

The group discussed how to resolve issues to achieve, near term, Schnitzer's agreement not to intervene to oppose NWCS's current Conditional Use Permit application to the City of Portland, as well as a cooperative, equitable program for addressing stormwater management issues on a continuing basis. Four issue areas were identified for further action, as follows:

1. Water Quality management, consisting of monitoring and facilities construction to avoid or minimize downstream impacts.

2. Maintenance of the downstream pipe conveyance system associated with Outfall 18.

   - Possible sharing of maintenance expenses for the trunk line on a pro-rata basis, based on estimated volumes for flows to Outfall 18.
   - The need for further study to correctly determine the boundaries of the tributary areas.

3. Agreement must involve the property owner for the NWCS site (WMR, L.L.C., a Washington limited liability company) so that it can be recorded and its terms survive NWCS's tenancy.

4. Both Schnitzer and NWCS should participate in the City of Portland / Metro initiative to use MTIP funds to upgrade N Burgard Road, including engagement in the design process.
   - Pat Tortora pointed out the possibility of redirecting the stormwater flow under the Burgard Road bridge to a southerly outfall, removing it from the Outfall 18 system entirely.

- Ann Gardner pointed out that the property on the west side of the Burgard Road bridge has been sold. The new owner is Felton Properties, and the contact person is Matt Felton, 503 227-2433.
- Ann Gardner also recommended contacting Tina Kotek, who recently was elected District 44 State Representative. Lee Leighton volunteered to get in touch with her, because he served briefly with her on the SouthEast Uplift (SEUL) Board several years ago.