EQUIPOISE
CORPORATION

November 12, 1998

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DEPT OF ECOLOGY

Mr. Dan Cargill
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

RE: REQUEST FOR VOLUNTARY CLEANUP PROGRAM REVIEW OF COMPLETED SITE INVESTIGATION AND REMEDIATION, 3801 7TH AVENUE SOUTH, SEATTLE, WA (Equipoise Job No. 112-001-001)

Mr. Cargill:

INTRODUCTION

Equipoise Corporation (Equipoise) is pleased to present this request for Voluntary Cleanup Program (VCP) review of a complete site investigation and remediation for the property located at 3801 7th Avenue South, Seattle, WA (the "site"). Equipoise was contracted by Mr. Jack Jackson, the site owner, to perform subsurface investigation and soil remediation activities. This letter summarizes the work and findings of two previous reports and also describes remediation activities not previously reported. The objective of this submittal is to obtain a "No Further Action Required" (NFA) designation for the site.

PROJECT CHRONOLOGY

Adapt Engineering, Inc. (Adapt) was contracted by Mr. Jackson to perform a Phase I Environmental Site Assessment (ESA) in August 1997. The ESA identified the following areas of potential environmental concern:

- Three 500-gallon underground storage tanks (USTs) that contained new oil, used oil, and gasoline were located in an area in the approximate center of the property. The USTs were removed in 1990. An undisclosed amount of petroleum hydrocarbon impacted soil was excavated and transported to Cedar Hills Landfill for disposal. An undisclosed volume of petroleum hydrocarbon impacted soil was left in place because of concerns for the stability of an adjacent building. No groundwater samples were collected below this location.

- A 12,000-gallon diesel UST located in the southwest corner of the site was removed in 1990. An undisclosed amount of petroleum hydrocarbon impacted soil was excavated and transported to Cedar Hills Landfill for disposal. Reportedly, no impacted soil was left in place. No groundwater samples were collected below this location.

- An existing uncoated concrete truck wash pad located located in the southwest corner of the site. Washwater collected on the washpad is reportedly collected by vacuum truck from a sump and transported for off-site disposal.

- The site has a system of four stormwater catch basins that reportedly discharge to an outfall in the southeast corner of the site. The outfall area was identified as a potential concern for the accumulation of hazardous substances.

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A complete description of the ESA activities and findings is presented in the Adapt report *Phase I Environmental Site Assessment* dated October 16, 1997 (Attachment 1).

Based on the findings and recommendations of the ESA, Mr. Jackson contracted Equipoise to conduct a Phase II Preliminary Subsurface Investigation (Phase II). A truck-mounted Strataprobe unit was utilized to collect soil samples from each of the areas of concern identified in the ESA. Analytical results for samples collected from the stormwater catch basin outfall, truck wash pad, and three UST cavity locations were below the analytical method detection limit for each analyte of interest. Petroleum hydrocarbon impacted soil was encountered at the diesel UST location.

Based on the positive screening results for petroleum hydrocarbons at the diesel UST geoprobe location, it was determined that further delineation of existing petroleum hydrocarbon impacts was required. Three test pits were excavated to a depth of approximately 10-feet bgs in the area of the former diesel UST excavation. One test pit, TP-1, was excavated directly over the location of geoprobe location GP-4 that yielded the positive petroleum hydrocarbon analytical screening results.

Excavated soil was examined for visual signs of impacts (e.g. staining, sheen). Representative soil samples were screened for VOCs using a PID equipped with a 10.7 eV lamp. No visually petroleum hydrocarbon impacted soil was encountered in any of the three test pits. Likewise, no elevated VOC readings were recorded from screening soil samples from the three test pits. Each of the test pits had imported fill material from 0 to 2-feet bgs. Black to brownish black, poorly sorted, silty sand with greater than 20% by volume landfill type materials (e.g. wood debris, plastic, china, glass) were encountered from 2 to 10-feet bgs. Two 1-quart automobile oil cans were retrieved from 6-feet bgs in test pit TP-1.

Two sidewall soil samples were collected at 8-feet bgs and one floor soil sample was collected at 10-feet bgs from test pit TP-1 and submitted for analysis of gasoline range hydrocarbons by Ecology Method WTPH-G and diesel range and heavier range hydrocarbons by Ecology Method WTPH-D Extended.

Concentrations of gasoline range hydrocarbons were in excess of the Washington State Model Toxics Control Act (MTCA) cleanup level of 100 mg/kg in the floor and east sidewall samples collected from test pit TP-1. Concentrations of diesel range hydrocarbons were in excess of the MTCA cleanup level of 200 mg/kg for each of the three soil samples collected form test pit TP-1. Concentrations of oil and heavier range hydrocarbons were in excess of the MTCA cleanup level of 200 mg/kg for each of the three soil samples collected from test pit TP-1. Laboratory analytical reports note that in each instance hydrocarbons found in the diesel range did not match the typical chromatogram pattern for diesel.

A complete description of the Phase II activities and results are presented in the Equipoise report *Preliminary Subsurface Investigation* dated January 15, 1998 (Attachment 2).

Subsequently, Mr. Jackson contracted Coastal Tank Cleaning, Inc. to excavate the area surrounding test pit TP-1 to remove remaining petroleum hydrocarbon impacted soil. Approximately, 20 cubic yards of soil and miscellaneous landfill-type debris were excavated. The bottom of the excavation was approximately 11-feet below ground surface (bgs). Soil samples were collected from each of the excavation sidewalls as well as the excavation floor and submitted for laboratory analysis of diesel and heavier range hydrocarbons using Washington State Department of Ecology Method WTPHD-Extended. Analytical results for each of the five soil samples collected were below the analytical method detection limit. Laboratory analytical reports are presented as Attachment 3.

CONCLUSIONS

An ESA identified four areas of potential environmental concern at the site. Soil samples collected from three of the areas indicated that analytes of interest were below laboratory analytical method detection limits. The fourth area of concern, the diesel UST area, was excavated and petroleum hydrocarbon impacted soil removed. Post-excavation floor and sidewall sample analytical results were below analytical method detection limits. Therefore, media impacted at the site above Model Toxics Control Act Method A cleanup levels have been remediated.

Equipoise Corporation on behalf of Mr. Jackson respectfully requests you grant our request for a NFA designation for the site.

Sincerely,

Equipoise Corporation

Thomas Vaughn
Principal

Attachment 1 – *Phase I Environmental Site Assessment* dated October 16, 1997, Adapt, Inc.
Attachment 2 - *Preliminary Subsurface Investigation* dated January 15, 1998, Equipoise, Corp.
Attachment 3 – Laboratory Analytical Reports

ATTACHMENT 1

Phase I Environmental Site Assessment
Adapt, Inc.

ADaPT Engineering, Inc.
800 Maynard Avenue South, Suite 403
Seattle, Washington 98134

Tel (206) 654-7045
Fax (206) 654-7048

October 16, 1997

ADaPT Job No. WA97-576

Mr. Jack A. Jackson
3801 – 7th Avenue South
Seattle, Washington 98108

Subject: Phase I Environmental Site Assessment
3801 – 7th Avenue South
Seattle, Washington

Mr. Jackson:

ADaPT Engineering, Inc. (ADaPT) is pleased to present the results of our Phase I Environmental Site Assessment for the above-referenced property. This assessment was performed in general accordance with ASTM Practice E 1527-97.

ADaPT appreciates the opportunity to be of service to you on this project. Should you have any questions concerning this report, or if we can assist you in any way, please feel free to contact us at (206) 654-7045.

Respectfully Submitted,

ADaPT Engineering, Inc.

Adam E. Escalona
Environmental Assessor

cc: Janene Siers
Robert L. Boggess

AEE/aee

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1.0 EXECUTIVE SUMMARY

ADaPT is pleased to present the results of the Phase I Environmental Site Assessment (Phase I) for the site at 3801 – 7th Avenue South in Seattle, Washington. Following is a summary of the Phase I:

Site Description: The subject site covers a reported 55,500 square feet, and is developed with an office/warehouse structure (see Section 3.0).

Site History: Historical research (see Section 6.0) revealed the current site building was constructed in 1973. Prior to 1973 dating to at least 1936, the site was undeveloped. From 1973 until the early 1990s, the site was occupied by a frozen food transporter. From the early 1990s to the present, the site has been occupied by Coastal Tank Cleaning.

Conditions of Concern: ADaPT found several recognized environmental conditions associated with the site as per ASTM Practice E 1527-97. The site reportedly had four, underground storage tanks (USTs) (see Section 4.0) that were removed in 1990. Reportedly, three USTs were north of the site building and their removal resulted in one excavation. The fourth UST, which contained diesel, was at the southwest corner of the site and its removal resulted in one excavation. Releases of petroleum were discovered in both excavations. The impacted soil was excavated and disposed of at a landfill; however, some contamination left under the site building because it was inaccessible. Additionally, closure sampling of the excavations did not include the testing of soil from the bottom of the excavations (see Section 4.0).

Truck maintenance and washing has been performed by the current and the past site tenant. The current site tenant has reportedly not used chlorinated solvents as part of the washing. Washing activities of the past site tenant are unknown. The site also has a wash pad with three catch basins. Three catch basins in the wash pad are reportedly plugged and there is no discharge from the pad. Wastewater that accumulates on the pad is removed by vacuum truck and reportedly disposed of at a facility in Tacoma. Four other catch basins on site are not connected to the city's system, and reportedly discharge to an area near the southeast corner of the site. It is unknown if the discharge point is on site, or on 7th Avenue South. Wash areas, maintenance areas, catch basins, and drain systems are suspect release or accumulation points for chlorinated solvents if they were used on site.

Sanitary wastewater was discharged to an on-site septic system prior to early 1996, when the site was connected to the city's sewer system. Septic systems can act as pathways to the subsurface of a site if hazardous substances are deposited into them. According to the site owner, Mr. Jack Jackson, the on-site septic system only received wastewater from restrooms (see Section 7.1).

A petroleum pipeline operated by Olympic Pipeline Company has an easement that runs east/west under the north end of the site. A company spokeswoman said that Olympic Pipeline Company is unaware of releases of petroleum from the pipeline in the subject area. The spokeswoman indicated that if there is a release from its pipelines, Olympic Pipeline Company assumes the responsibility and cost for any cleanup (see Section 7.1).

The site and subject area were a tideland that was filled in the early part of this century. A reported 5,000 cubic yards of fill was imported to the site in the early 1970s. ADaPT did not document the origin of fill material deposited on the site. A possible waste landfill appears to have operated north of the site in the 1940s, between the site and South Spokane Street.

Conclusions: In ADaPT's opinion, further environmental assessment of the subject site, such as the collection and testing of soil samples, is warranted to evaluate whether the recognized environmental conditions have associated hazardous substance or petroleum releases (see Section 9.0).

This summary is intended for introductory purposes only and should be used in conjunction with the full text of this report. The project description, site conditions, and results of our assessment are presented in the text of this report.

2.0 INTRODUCTION

2.1 Purpose

The purpose of the Phase I is to evaluate the subject site for indications of recognized environmental conditions due to previous or ongoing, on-site and off-site activities or conditions. Where applicable, the Phase I also strives to satisfy one of the requirements to qualify for the *innocent purchaser/landowner defense* to Comprehensive Environmental Response, Compensation and Liability Act, 42, U.S.C. 9601, et seq. (CERCLA) liability. The Washington Model Toxics Control Act (MTCA), Chapter 70.105D Revised Code of Washington (RCW) has a similar provision for exemption from liability. The Phase I endeavors to provide "*all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability*" as stated in CERCLA and MTCA.

2.2 Special Terms and Conditions

Verbal authorization to perform this Phase I was given by the site owner, Mr. Jack A. Jackson on August 26, 1997.

2.3 Scope of Work

The scope of work for this study consisted predominantly of gathering reasonably ascertainable information in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Phase I Environmental Site Assessments (ASTM Practice E 1527-97). Specifically, this Phase I consisted of the following:

- A site reconnaissance to assess for the existence of recognized environmental conditions.
- A reconnaissance of the area immediately surrounding the site for the purpose of evaluating adjoining sites for recognized environmental conditions.
- A review of regulatory agency (U.S. Environmental Protection Agency, Washington State Department of Ecology, etc.) database lists, and individual site files if necessary, for the purpose of evaluating reported environmental concerns in the vicinity of the subject site.
- A survey of available local geologic and topographic maps, as well as additional information concerning public and private water sources in the project vicinity.

- A review of historical sources including available business directories, aerial photographs, maps, tax assessment records, and building/planning department records. The historical information was used to evaluate past and present land use at the site and in the site vicinity to document businesses, activities, or conditions that could possibly compromise the environmental integrity of the site.

- Preparation of a report documenting the findings of the Phase I and our opinion of the possibility that contamination of the property may exist due to on-site or nearby off-site land use activities.

2.4 Limitations

This assessment is intended to provide the client with information regarding apparent suspicions of existing and potential recognized environmental conditions associated with subject property. ADaPT warrants that this Phase I Environmental Site Assessment was performed using generally accepted, good commercial and customary environmental assessment practices. ADaPT believes that the information obtained from the records review and the interviews concerning the site is reliable. However, ADaPT cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. No other warranty, either implied or express is given.

Environmental impairment of property as a result of activities such as illicit or unreported dumping or spilling of hazardous or deleterious materials may not be readily apparent. The opinions and conclusions presented in this report are based on information readily available at the time of the assessment. The collection of quantitative information, such as data generated by the analysis of soil or water samples, was beyond the scope of this assessment. The Phase I does not address the ASTM Phase I non-scope issues of asbestos, radon, lead-based paint, lead in drinking water, and wetlands. The client specifically requested that an asbestos survey not be performed for the site building. Other project specific limitations are presented in the appropriate sections of this report.

This report has been prepared for the exclusive use of Mr. Jack Jackson and his agents for specific application to the project site. Use or reliance upon this report by a third is at their own risk. ADaPT does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to ADaPT.

3.0 SITE DESCRIPTION

A Location/Topographic Map (Figure 1), Parcel Map (Figure 2), Vicinity Map (Figure 3), and Site Plan (Figure 4) are included in Appendix A.

3.1 Location

The subject site is located at 3801 – 7th Avenue South in Seattle, King County, Washington (Section 17, Township 24 North, Range 4 East, W.M.).

3.2 Site and Vicinity Characteristics

The rectangular-shaped site covers a reported 55,500 square feet. The site is developed with an office/warehouse building constructed in 1973.

According to the United States Geological Survey (USGS) 7.5x15 minute series topographic map "Seattle South" (1983), the site is at an elevation of approximately 16 feet above mean sea level. Topographically, the subject site has a high a high point near its center which slopes down to the east and west. There is an estimated three to five foot difference in elevation across the site. The surface of the subject site is covered with areas of concrete and asphalt paving, the site structure, or is left as bare dirt and gravel.

The subject site is bordered on the north by South Charlestown Street, beyond which are two warehouse buildings; on the east by 7th Avenue South, beyond which is a parking area and office building occupied by Western Peterbilt; on the south by a vacant warehouse, and vehicle emission test station; and on the west by the vehicle emission test station and 6th Avenue South.

3.3 Description of Improvements

According to tax assessment records, the site building was constructed in 1973 and it has a total of 9,052 square feet. The building is divided into three sections – a two-story office at the west end; a warehouse in the center; and a warehouse/shop with mezzanine at the east end. The building is of concrete tilt-up and wood-frame construction. On the western portion of the site is a concrete wash pad. The site is serviced by municipal water and sanitary sewer (City of Seattle), electrical power (Seattle City Light), and telephone (U S WEST).

3.4 Site Use

The subject site is occupied by Coastal Tank Cleaning and Eagle Harbor Construction & Rental Company, Inc. Past uses of the site are discussed in the Historical Use Information section (see Section 6.0).

4.0 INTERVIEWS, REPORTS, AND ENVIRONMENTAL LIENS

Persons who may have information concerning environmental conditions at and surrounding the site were interviewed. Pertinent information obtained during the interviews appears in the appropriate sections of this report.

Mr. Jack Jackson owns the subject site. Mr. Jackson said the he is unaware of environmental liens on the subject site. Mr. Jackson provided other information concerning the site that is presented in other sections of this report.

Mr. Jackson provided for ADaPT's review, a file concerning the removal of underground storage tanks (USTs) at the site in 1990. The file contained various documents including laboratory testing results, trucking manifests, photographs, a soil sampling diagram, but no written report. Mr. George Akers, an attorney for the previous owners of the site, also provided documents for ADaPT's review. Mr. Aker's documents duplicated documents in Mr. Jackson's file. The file and documents were reviewed for information that is necessary to assess the potential environmental impacts of the USTs to the site. This information includes the number, size, contents, and locations of the USTs, and soil/groundwater test results.

On-Site Underground Storage Tank Information

Documents in Mr. Jackson's file indicated the following concerning the USTs:

- A marine chemist certificate indicates two, 1,000-gallon tanks, and one, 10,000-gallon tank were inerted on 10 May 1990.
- A receipt for Brad Mason Trucking & Excavating, Inc. (dated 16-29 May 1990) lists a work scope that includes removing one, 10,000-gallon diesel tank, and three, 1,000 gallon waste oil tanks.
- Two tank disposal receipts from The Purdy Company of Illinois (dated 18 May 1990) indicate three, 1000-gallon tanks, and one, 12,000-gallon tank were received.
- A Seattle-King County Department of Public Health letter (dated 18 June 1990), and a Coastal Tank Cleaning, Inc. letter (dated 13 June 1990) concerning contaminated soil disposal, state the soil was excavated from a #2 fuel oil and a gasoline tank excavation

Copies of these documents are included in Appendix B. Mr. Jackson said a diesel UST was located at the southwest corner of the site, and the other USTs were located north of the site building. Mr. David George Pollart of Provisioners Express, Inc. (Provisioners) is the son of the former site owners, and Provisioners is the former site tenant. Mr. Pollart concurred with Mr. Jackson as to the UST locations in a letter dated September 30, 1997. Mr. Pollart said a diesel UST was at the southwest corner of the site, and three 500-gallon USTs containing new oil, used oil, and gasoline were located north of the site building. Mr. Pollart's letter also states that all four USTs could have been removed by digging two excavations. It should be noted that Mr. Pollart originally indicated to ADaPT via a sketch that the USTs were in four separate locations. Mr. Pollart, however, wrote the September 30, 1997 letter after reviewing an aerial photograph of the site and consulting with a Provisioners employee present at the time the USTs were installed. Mr. Pollart's letter is included in Appendix B.

Excavation and Soil Sample Numbering Scheme

Documents in Mr. Jackson's file indicate there were two UST excavations. Reportedly, one excavation was near the southwest corner of the site, and the second excavation was north of the site building. Mr. Jackson's file contained a hand drawn sketch (included in Appendix B) of both UST excavations. The sketch is not to scale and does not show site features such as the on-site building. The excavations are labeled "A" and "B". Reportedly, Excavation A was for a 10,000 to 12,000-gallon diesel UST, and Excavation B was for the motor oil, used oil, and gasoline USTs. The sketch has a north arrow adjacent to Excavation A, and labels Excavation A's west, north, east, and south walls as 1, 2, 3, and 4, respectively. The excavation and numbered walls appear to correspond to laboratory test results for soil samples. For example, sample 1A is from the west wall of Excavation A. The discussion of laboratory test results below assumes the labeling on the sketch and the sample numbers are consistent.

Mr. Jackson said that some soil contamination in Excavation B was left in place because it extended to the south below the site building, and to the west below a loading dock ramp. The sketch does not show a north arrow adjacent to Excavation B. If Excavation A's north arrow is used for Excavation B, the soil sampling numbering scheme and laboratory testing results do not correspond to the south and west walls having soil contamination that was left in place. In short, there is no clear and definite explanation as to what soil tests results correspond to which sidewall of Excavation B.

Excavation A Soil Testing

Based on the sampling scheme described above, and the review of laboratory certificates in Mr. Jackson's file, it appears four soil samples from each sidewall of Excavation A were submitted to Analytical Resources, Inc. (ARI) on May 17, 1990. The four samples were tested for total petroleum hydrocarbons (TPH). The west, north, east, and south sidewalls had TPH concentrations of 100 parts per million (ppm), 510 ppm, 770 ppm, and 200 ppm, respectively. The current Washington Model Toxics Control Act (MTCA) Method A cleanup levels for TPH in industrial soils is 200 ppm for diesel TPH. Soil samples from the north and east walls of Excavation A were collected and submitted to ARI on May 30, 1990 for TPH testing, presumably after further soil removal from Excavation A. The north and east wall soil samples had 390 and 1,100 ppm TPH, respectively. A third round of soil samples from the north wall and east wall of Excavation A was submitted to AM TEST on August 6, 1990. These two soil samples had no detectable concentrations of TPH. Mr. Jackson's file did not contain information that indicated a soil sample from the bottom of Excavation A was collected and tested. Mr. Jackson said that the release from the Excavation A UST appeared to be from spillage and not from a leak in the UST.

Excavation B Soil Testing

Based on the sampling scheme described above, and the review of laboratory certificates in Mr. Jackson's file, it appears four soil samples from each sidewall of Excavation B were submitted to Analytical ARI on May 17, 1990. As stated in a previous section, the correspondence of soil samples to sidewalls is unknown. The four samples were tested for TPH, and tested twice for benzene, toluene, ethylbenzene, and total xylenes (BTEX). BTEX are gasoline additives. While some BTEX components were detected in the Excavation B samples, none of the concentrations exceeded current MCTA Method A cleanup levels. Soil samples 1B, 2B, 3B, and 4B had TPH concentrations of 3,800, 3,200 ppm, 7,700 ppm, and 60 ppm, respectively. Two soil samples labeled 1B and 3B were submitted to ARI on May 30, 1990, and were found to have TPH concentrations of 700 ppm and 610. On August 6, 1990, two soil samples labeled 1B and 3B were submitted to AM TEST. Sample 3B had no detectable concentration of TPH. AM TEST does not report a TPH concentration for sample 1B, although there is a test result for a sample 1A. Comparing AM TEST's laboratory certification and the chain-of-custody for the submitted samples, it is possible that AM TEST misreported sample 1B as 1A. If this is the case, then the TPH concentration for 1B was 6,600 ppm. ADaPT's review of the data indicates that two sidewalls of Excavation B had TPH concentrations that exceeded current MTCA Method A cleanup levels for TPH in industrial soil. Finally, there is no information that suggests that soil from the bottom of Excavation B was tested.

According to documents in Mr. Jackson's file, the petroleum-contaminated soil from both excavations was disposed of at the Cedar Hills landfill.

The laboratory certificates for the soil samples are included in Appendix C.

5.0 PHYSICAL SETTING

5.1 Regional Physiographic Conditions

The subject site is situated in an industrial area in Seattle. This area was formerly a tide flat that was filled in the early part of this century. The area is drained by the Duwamish/Green River that flows south to north

approximately one mile west of the site. One-half mile east of the site is Beacon Hill, which rises to a height of approximately 330 feet above mean sea level. Approximately one mile northwest of the site is Elliot Bay, an inlet of Puget Sound.

5.2 Geologic and Soil Conditions

ADaPT reviewed water well reports at the Washington Department of Ecology (Ecology) Northwest Regional Office in Bellevue, Washington including a report for a monitoring well at a Seattle City Light facility located approximately one-quarter mile west-northwest of the site. The soil log for the well boring indicated unconsolidated layers of silt and sand to a depth of 19 feet below ground surface (bgs). Some of these layers had fragments of brick, glass, concrete, and wood which is indicative of fill. From 19 to 20.5 feet bgs, the total depth of the monitoring well, was green-gray, clean, silty sand which is indicative of native soil. Because of the close proximity of the Seattle City Light facility to the subject site, the underlying soil conditions may be similar, that is, approximately 20 feet of fill material may underlie the site and overlie the native mud flats.

ADaPT also reviewed records for the site building at the City of Seattle's Department of Construction and Land Use. The records did not include a soil report, but they did include certificates for 34-foot to 36 foot pilings. Pilings are driven into stable soil or geologic formations, the most common of which in the Puget Sound area is glacial till. Glacial till is unassorted, non-stratified deposits consisting of a concrete-like mixture of clay, silt, sand, gravel, and boulders. Considering the piling lengths, glacial till may be present below the site at a depth of approximately 25 to 35 feet.

The United States Department of Agriculture Soil Conservation Service's *Soil Survey of King County Area, Washington* (Dale E. Snyder, Philip S. Gale, and Russell F. Pringle, 1973) was consulted for information relating to soils underlying the site. The survey, however, does not address soils within the city limits of Seattle.

5.3 Groundwater Conditions

Near-surface or perched groundwater typically occurs when an underlying soil layer of lesser hydraulic conductivity prevents the downward percolation of water. Water will build up above the less conductive soil such as glacial till, and move laterally in the more conductive overlying soils. Wet or saturated soils may also be encountered at depth due to cleaner sand and gravel zones. Groundwater conditions should be expected to fluctuate due to season, amount of precipitation, and other on-site and off-site factors. The water well report for the nearby Seattle City Light facility (see Section 5.2) indicated saturated soils at approximately 20 feet bgs.

Groundwater flow direction is difficult to predict without the installation of at least three monitoring wells that measure water levels over time. However, an estimate of possible near-surface groundwater flow direction is provided to help evaluate potential on-site and off-site contaminant impacts. Groundwater flow direction is the path along which dissolved contaminants might migrate if present in groundwater. In this region the near-surface groundwater flow direction typically follows topography. Since the subject area slopes down to the west to northwest toward the Duwamish River and Elliot Bay, then near-surface groundwater flow direction likely follows the topography and moves toward the west to northwest as well. Additionally, the complex hydrogeology of a tide flat adds the likelihood that zones of preferential groundwater flow in relic surface channels may locally influence groundwater flow direction. Variations in

this assumed flow direction may exist that would remain uncharacterized without performing subsurface exploration beyond the scope of the Phase I.

Groundwater is a mobile media; as such, it has the potential to transport contamination from one point to another. Considering the presence of near-surface groundwater, it is ADaPT's opinion that the site may be susceptible to contamination from nearby off-site sources, chiefly from the east to southeast. It is ADaPT's opinion that contamination on the site, if it were to exist, has the potential to be transported to nearby off-site locations, chiefly to the west to northwest.

5.4 Drinking Water Supplies and Water Wells

The subject site and area obtain their public drinking water supply from the City of Seattle, which obtains its drinking water supply from reservoirs on the Cedar River and Tolt River in southeast and northeast portions of King County, respectively. Based on the separation distances, it is highly unlikely these drinking water supplies would be influenced by the subject site.

A review of water well reports at Ecology's Northwest Regional Office in Bellevue, Washington did not reveal the presence of drinking water wells located within one mile of the subject site.

6.0 HISTORICAL USE INFORMATION

This section is divided into two subsections. The first subsection (Section 6.1) summarizes the various historical sources that were consulted. The second subsection (Section 6.2) is a decade by decade discussion of the historical uses of the site and immediate surrounding area.

6.1 Historical Sources

The land use history of the subject site and immediate surrounding area was researched utilizing the various reasonably ascertainable sources described below.

Tax Assessment Records

We obtained tax assessment information from the King County Department of Assessments. In addition, ADaPT obtained historical field-data tax assessment records for the subject site from the Office of the Secretary of State (Washington) Puget Sound Regional Archives. Copies of the tax assessment information are included in Appendix D.

Aerial Photographs

ADaPT reviewed aerial photographs from the years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1985, 1990, and 1995 at Walker & Associates, Inc. of Tukwila, Washington. The photographs range in scale from 1": 800' to 1": 2,000', and are black and white and color. In the review of the aerial photographs, observations are interpretative and limited to the area within approximately one-quarter-mile of the subject site. The scale of each photograph did not provide a clear image of specific site characteristics. However, we were able to discern the absence and presence of structures on the subject site, as well as developmental trends in the area.

Historical Maps

We reviewed the USGS 7.5x15-minute series topographic map "Seattle North Quadrangle" (1983).

We reviewed the collection of Sanborn Map Company fire insurance maps at the main branch of the Seattle Public Library. Sanborn maps, as they are commonly referred, typically detail building construction type and use, and may show underground and above ground storage tanks, chemical storage areas, and other recognized environmental conditions. The Sanborn Map Company published maps dating from 1867 to the present for various cities and towns, and therefore the maps are a good source for identifying the past uses of a property. **The reviewed collection did not have Sanborn maps of the subject site.**

Business Directories

In an effort to document past uses of the subject site and surrounding area, ADaPT reviewed available historical business directories such as those published by R.L. Polk & Company. These directories are commonly known as Polk directories. ADaPT reviewed the business directory collection at the main branch of the Seattle Public Library. Specific directories we reviewed included Polk directories for Seattle dated 1938, 1943-44, 1948-49, 1953, 1958, 1963, 1968, 1973, 1977, 1983, 1987-88, 1994, and 1997. Addresses that correspond to the subject site are odd numbers in the 3800 block of 7th Avenue South (7th); even numbers in the 3800 block of 6th Avenue South (6th); odd numbers in the 600 block of South Charlestown Street (Charlestown); and even numbers in the 600 block of South Branford Street (Branford).

Building Department Records

Permit and plan records (on microfiche) for the subject address of 3801 – 7th Avenue South were reviewed at the Seattle Department of Construction and Land Use (DCLU). We also reviewed sanitary sewer and storm sewer plans for the subject area at the City of Seattle's Street Use Division. These records are included in Appendix E.

6.2 Historical Findings

Following is decade by decade discussion of the uses of the subject site and immediate surrounding area.

1930s

A 1936 aerial photograph shows the site undeveloped. This coincides with tax assessment records that indicate the site was undeveloped in 1938. The photograph shows 7th open south of Charlestown. Charlestown and Branford are open east of 7th but do not extend west of the 7th. East of the site, 6th is not open. A 1938 Polk directory does not list addresses on 6th, 7th, Branford, or Charlestown that correspond to the subject site.

The 1936 aerial photograph shows the immediate surrounding area to be partially developed with commercial and residential structures. The area immediately north of the site is undeveloped. About one

block to the north, South Spokane Street (Spokane) is evident. West of the site, beyond 7th on the western portion of the parcel currently occupied by Western Peterbilt, is a large commercial structure. The 1938 Polk directory indicates Pacific Door & Manufacturing Company occupied this address (3800 – 7th), and tax records indicate this facility was constructed in 1906. Smaller commercial and residential structures are apparent to the east of the Pacific Door facility. The 1936 aerial photograph shows the area south and west of the site to be undeveloped.

1940s

A 1946 aerial photograph shows the subject site and immediate surrounding area to be developed much as they were in the 1936 aerial photograph, including no major changes in the street grid. One exception is an apparent dump or landfill south of Spokane. Sixth extends south of Spokane maybe 50 to 100 feet forming a sort of cul-de-sac, around which appears to be waste disposal. A road also extends south of Spokane near the present day Maynard Avenue South right-of-way. The road appears to run just to the north of the site. What appears to be waste disposal piles abut the east and west sides of this road.

Polk directories dated 1943-44 and 1948-49 list no addresses corresponding to the subject site. The directories again list Pacific Door at 3800 – 7th.

1950s

A 1956 aerial photograph shows the site undeveloped. Polk directories dated 1953 and 1958 list no addresses that correspond to the site. North of the site, the waste disposal piles are no longer apparent in the 1956 aerial photograph. Three commercial structures are present in this area with frontage on Spokane. Immediately north of the site, the photograph shows a parking lot in the area currently occupied by the Ed Wyse building. Northeast of the site, 7th has been extended north of Charlestown, but it does not extend to Spokane. To the northeast, beyond 7th and Charlestown on a parcel currently occupied by Western Peterbilt, a large, current-existing commercial building is evident in the 1956 aerial photograph. Tax records indicate this building was constructed in 1953-54 and was utilized as a garage. East of the site, the Pacific Door facility is apparent in the aerial photograph. The 1958 Polk directory lists the Pacific Door address of 3800 – 7th as occupied by the Ken Ogden Company (cabinet maker) and the Tyee Lumber & Manufacturing Company. The 1956 aerial photograph shows the area immediately south and west of the site to be undeveloped.

1960s

Aerial photograph dated 1960 and 1969 shows the site undeveloped; however, significant development is apparent on immediate surrounding parcels. The photograph shows Charlestown open north of the site, beyond which is the parking area noted in the 1956 aerial photograph, and the building currently occupied by Armadillo Machinery. Tax assessment records indicate the Armadillo building was constructed in 1960. Polk directories dated 1963 and 1968 indicate this building at 600 Charlestown was occupied by Canteen Service (vendors). The aerial photographs show the area to the east of the site beyond 7th to be developed as they were in the 1956 photograph. The 1960 and 1968 Polk directories indicate 3800 – 7th previously occupied by Pacific Door and others, as being occupied by King Packaging & Crating Company. The area immediately south and west of the site in the 1960 aerial photograph is undeveloped. In the 1968 aerial photograph, however, this area is occupied by what appears to be a storage or wrecking yard. The reviewed Polk directories do not list a corresponding address for this site. The 1969 aerial photograph shows 6th to be

open west of the site, beyond which is the large warehouse complex currently occupied by Owl Transfer & Storage Company, Inc.

1970s

A 1974 aerial photograph shows the site developed with the current existing site structure. From the center of the building, a wing extends to the north. Records from DCLU indicate a permit was issued in 1970 to fill the site with 5,000 cubic yards of dirt. A 1972 permit was issued for pile driving and foundation construction for the building. Permits were issued in 1972 and 1973 to construct the building that included a shipping terminal, offices, cold storage, and a repair garage. A permit was issued in 1974 to add to the existing building. A 1973 as-built plan of the building shows the repair garage to be west of the main building near the southwest corner of the site. This structure was not noted in the reviewed aerial photographs. The plans indicate the north wing was a covered loading area. The as-built plan also shows the 1974 addition to be to the east end of the building. Polk directories dated 1973 and 1978 list the subject address of 3801 – 7th as occupied by Provisioners Frozen Express (transferer of frozen foods).

The 1974 aerial photograph shows the area immediately surrounding the subject site to be developed much as it was in the 1969 aerial photograph. One major exception is the building east of the site occupied by Pacific Door and others is no longer present. Branford and Maynard are open south of the site. The 1977 Polk directory lists Northwest Container Service, Inc. at 3800 – 6th, which corresponds to the storage yard/wrecking yard south of the site noted in the aerial photographs.

1980s

Aerial photographs dated 1980 and 1985 show the site occupied by the site structure. Provisioner Frozen Express is listed at the subject addresses of 3801 – 7th and 3800 – 6th in Polk directories dated 1983 and 1987-88.

To the north, the current existing Ed Wyse Building has replaced the previous parking lot in the 1985 aerial photograph. Both photographs show the parcel to the east to be developed as it is today with the Western Peterbilt office and parking lot. The 1980 aerial photograph shows the storage yard south and west of the site, while the 1985 aerial photograph shows the current existing vacant warehouse to the south of the site. The aerial photographs show the vehicle emission test station south and west of the site.

1990s

A 1990 aerial photograph shows the site building without the north wing. The on-site wash pad and storage on Charlestown is evident in a 1995 aerial photograph. Both aerial photographs show the immediate surrounding area developed much as it is today. A 1994 Polk directory lists Coastal Tank Cleaning and Coastal Coating, Inc. at the subject address of 3801 – 7th. A 1997 Polk directory lists Coast Eagle Harbor Construction Environmental Services at the subject address.

7.0 RESULTS OF RECONNAISSANCE

7.1 On-Site Inspection Observations

An ADaPT representative conducted a reconnaissance of the subject site on September 3, 1997. The purpose of the site reconnaissance was to evaluate current conditions at the site and to look for recognized environmental conditions. The reconnaissance consisted of walking and observing the subject site to provide an overlapping field of view.

A concrete wash pad is situated on the west portion of the site. Former USTs that have been removed from the ground are cleaned on the pad. The tanks are reportedly cleaned with a steam cleaner. Solvents are reportedly not used for cleaning on the site. ADaPT observed 55-gallon drums and above ground storage tanks on the wash pad (see below). The wash pad has three, shallow catch basins that are in-line and drain to the south. According to Mr. Tom Smith of Coastal Tank Cleaning, the drain system for the wash pad is plugged. Water ponds on the pad itself, and this water is pumped from the pad with the catch basins used as sumps. The wastewater, according to Mr. Smith, is disposed of at a Petroleum Reclaiming Service, Inc. (PRS) facility in Tacoma. ADaPT reviewed wastewater disposal receipts for the wash pad water. According to the receipts, the water from the pad was taken to PRS from July 1994 to September 1997.

ADaPT reviewed side sewer plans for the site at the City of Seattle Street Use Division. According to the plans, the site's storm sewer system is not connected to the city's system. In addition to the wash pad catch basins, ADaPT observed four other storm drains on the site. One catch basin was observed at the southeast corner of a concrete pad, at the east exterior of the site building. A second catch basin was observed near the main entrance at the west end of the building. A zipper or trench drain was observed at the north center exterior of the building. A fourth catch basin was observed in a concrete pad west of the wash pad. Mr. Jackson said the catch basins drain to the catch basin near the southeast corner of the site. This catch basin reported discharges the collected storm water to the southeast corner of the site, or possibly to 7th Avenue South.

The site currently performs vehicle maintenance and ADaPT observed several containers of chemicals associated with this activity (see below). ADaPT did not observe indications of routine hazardous substance releases associated with the site, nor did ADaPT observe containers of chlorinated solvents. Historical research indicated the previous site tenant also performed vehicle maintenance on the site. Chemical uses by that tenant are unknown.

West of the site building is a pump for the sanitary sewer system. According to City of Seattle plans, the site's sanitary sewer was connected to the city's sanitary sewer system in late 1995 to early 1996. Prior to that time, the sanitary wastewater was accommodated by a septic system located between the site building and the west end of the site. Mr. Jackson said he believes the unconnected septic system was left in place. Mr. Jackson said that to his knowledge the only wastewater discharged to the septic system was from restrooms.

ADaPT observed several 55-gallon drums containing various substances. The quantities, locations, and contents of the drums are summarized in Table 1 below.

Table 1
On-Site 55-Gallon Drums

Location	Quantity	Contents
East exterior of building	1	Used anti-freeze
North end of building shop	4	Anti-freeze, transmission fluid, one empty, and one unlabeled
West end of building shop	30-40	Sandblasting shot
Southeast corner of building shop	6	Unknown (faded labels)
Northeast corner of site, possibly on Charlestown	≅ 30	Sandblasting shot.
North end of site, possibly on Charlestown	≅ 20	No specific label other than non-regulated waste
South end of wash pad	5	Drums uncovered and unlabeled containing unknown substance
East end of wash pad	1	Unlabeled
Northeast corner of wash pad	1	Used oil

In general, the drums appeared to be in good condition with no leaks observed.

In addition to the drums, there were other miscellaneous containers of chemicals in the building shop, chemicals typically used in vehicle and equipment maintenance. The concrete floor of the shop was covered with various items preventing its entirety from being viewed; however, no floor drains were observed. The floor also appeared to be in good condition with no major cracks observed

ADaPT observed four, in-use above ground storage tanks (ASTs) on the site. The locations, capacities, and contents of the ASTs are summarized below in Table 2.

Table 2
On-Site ASTs

Location	Capacity (gallons)	Contents
North end of building shop	100 to 200	Unused motor oil
North exterior of building shop	≅ 500	Diesel fuel
South end of wash pad	250 to 500	Carbon filter media
South end of wash pad	250 to 500	Carbon filter media

In general, the ASTs were in good condition and we did not observe associated spills or leaks. In addition to the in-use ASTs, the site had several out-of-use tanks associated with Coastal Tank Cleaning projects. The site also had mobile ASTs mounted on truck trailers.

A petroleum pipeline operated by Olympic Pipeline Company has an easement that runs east/west under the north end of the site. A valve station is adjacent to the northwest corner of the site. According to Ms. Deamme Carter, right-of-way representative for Olympic Pipeline Company, Olympic Pipeline Company is unaware of a petroleum release from the pipeline in the area of the subject site. This pipeline may be

considered a potential source of a subsurface contamination to the subject site. Ms. Carter indicated that if there is a release from its pipelines, Olympic Pipeline Company assumes the responsibility and cost for any cleanup.

The unpaved portions of the site had some surface staining such as from motor oil from parked vehicles. ADaPT did not observe surface staining indicative of routine hazardous substance spills or disposal.

No electrical transformers were observed on the subject site. The site building had fluorescent light fixtures that have associated ballasts. Fluorescent light ballasts manufactured prior to 1979 sometimes contained polychlorinated biphenyl (PCB) oils. Ballast not labeled "No PCBs" should be assumed to contain PCBs. In case of future repair work, remodeling, or demolition of the fluorescent lights, certain regulations concerning the disposal of the ballasts must be followed. EPA Region 10 has established a policy that PCB ballasts must be disposed of in a chemical waste landfill or in a high-temperature incinerator.

7.2 Adjacent Site and Vicinity Observations

A representative of ADaPT conducted a reconnaissance of the area surrounding the subject site on September 3, 1997. The purpose of this reconnaissance was to observe land use in the site vicinity and to evaluate the potential for nearby businesses to generate, use, or store hazardous substances that may affect the subject site. The off-site reconnaissance was non-intrusive. That is, the adjoining properties were observed from the subject site and public right-of-ways.

North
Immediately north of the subject site is South Charlestown Street. South Charlestown Street is unpaved and is being used as a storage area by the current site tenant. Beyond South Charlestown Street to the northwest is a building and storage yard occupied by Amadillo Machinery. Beyond South Charlestown Street to the Northeast is an office/warehouse building (Ed Wyse Building).

East
Immediately east of the subject site is 7th Avenue South, beyond which are a parking lot and an office building occupied by Western Peterbilt. Northeast of the site is a Western Peterbilt body shop and repair garage. This facility is a dangerous waste generator (see Section 8.3); UST facility (see Section 8.4), and leaking UST facility (see Section 8.5).

South
Immediately south of the east half of the subject site is a vacant office/warehouse building. South of the west half of the site is a vehicle emissions test station.

West
Immediately adjoining the west of the subject site is a portion or the vehicle emissions test station. Also west of the site is 6th Avenue South, beyond which is a complex occupied by Owl Transfer & Storage Company, a reported leaking UST facility (see Section 8.5).

8.0 STANDARD REGULATORY AGENCY ENVIRONMENTAL RECORD SOURCES

Publicly available and practically reviewable regulatory agency reports generated from databases were reviewed with respect to the subject site. The reports, obtained from federal, state, and local government

agencies, were reviewed in an effort to document any reported environmental concerns that have occurred at the subject site or in the surrounding area. Sites or facilities appearing on the reviewed reports, within a certain search distance of the subject site, are discussed below. The search distances ADaPT utilizes for Phase I reports meet those specified in ASTM Practice E 1527-97. The following reports were reviewed (the search distance for each report is listed in parentheses):

- U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) report (one-half mile) and sites on the National Priority List (one mile).
- Washington State Department of Ecology's (Ecology) Confirmed and Suspected Contaminated Sites report (one mile).
- The EPA's Resource Conservation and Recovery Act (RCRA) total notifiers report (subject site and adjoining properties), including RCRA Treatment, Storage, and Disposal (TSD) facilities (one-half mile), and TSD facilities subject to Corrective Action (CORRACTS) under RCRA (one mile).
- Ecology's Underground Storage Tank registration list (subject site and adjoining properties).
- Ecology's Leaking Underground Storage Tank list (one-half mile).
- Emergency Response Notification System (ERNS) Spill Report (subject site).
- Landfills (one-half mile).

8.1 CERCLIS and NPL

The CERCLIS database is used by EPA to track activity conducted under the Superfund program including sites that represent a long-term threat and are classified on the National Priorities List (NPL). **The review of the database (dated March 6, 1997) revealed no CERCLIS sites located within approximately one-half mile of the subject site, and no NPL sites located within approximately one mile of the subject site.**

8.2 Confirmed and Suspected Contaminated Sites Report

Ecology's Confirmed and Suspected Contaminated Sites (CSCS) report lists suspected or confirmed hazardous substance sites in the state of Washington. **The review of the CSCS report (dated May 30, 1997) lists 21 sites located within approximately one mile of the subject site.** Of the 21 sites, only one is in a position that appears to be hydrologically tributary to the subject site, based on the topography. This site, which is also the nearest to the subject site, is listed as NORTHWEST PLATING at 825 S DAKOTA, located approximately one-eighth mile to one-quarter mile southeast of the subject site. This CSCS site is listed as having its soil and groundwater affected by halogenated organic compounds and heavy metals. The separation distance reduces the risk that contaminants may migrate from this CSCS site to the subject site.

The remaining 20 CSCS sites are situated in positions that appear to be hydrologically cross-gradient to down-gradient of the subject site, based on the topography, and thus it is unlikely contamination at these 20 sites would migrate to the subject site.

8.3 RCRA Total Notifiers, TSD, and CORRACTS TSD

The RCRA total notifiers report is a list of regulated generators, handlers, transporters, and disposers of hazardous materials. Listing on the RCRA report does not indicate a facility has been adversely affected by a hazardous material, but merely that the facility is required to monitor and document hazardous waste activities to EPA or Ecology. **The reviewed RCRA report (dated May 14, 1997) lists both the subject site and an adjoining facility.**

The subject site is listed as COASTAL TANK CLEANING INC at 3801 7TH AVE S. The facility is listed as a large quantity dangerous waste generator, a dangerous waste transporter, and a used oil recycler. According to Mr. Jackson and Mr. Tom Smith of Coastal Tank Cleaning, Inc. (CTC), the facility is listed because CTC generates waste from cleaning tanks at job sites. The waste is transported directly from each job site to a treatment, storage, or disposal facility. Mr. Smith said the waste is not brought to the subject site; however, the subject address is listed because it is the permanent business address of CTC.

Dangerous waste files CTC were reviewed at Ecology's Northwest Regional Office in Bellevue, Washington. One file indicated the site was inspected by Ecology in November 1990. Ecology issued a follow-up letter (dated 27 November 1990) to Mr. Smith and CTC. The letter addresses runoff at the site. Petroleum contaminated runoff from the site was entering a storm drain on 6th Avenue South. The letter gives specific requirements to control runoff from the site including:

- Continued use of absorbent pads to minimize off-site migration of oil.
- The installation "as soon as possible" of an oil/water separator that was planned for the site.
- The requirement that water from the truck wash area be discharged to the sanitary sewer.
- Drums should be stored on a concrete pad with an overhead roof. The pad should have a raised perimeter curb or a sump.

Ecology issued a second follow-up letter (dated 7 February 1991) to Mr. Smith and CTC. The letter addresses deficiencies and required corrections in the site dangerous waste contingency plan. The letter also states that four drums were not properly labeled, and asks CTC to explain how they will ensure the proper labeling of regulated wastes in the future.

The EPA, through a contractor, inspected the site in April 1991. The inspection of the site did not reveal waste spills; however, deficiencies were found in the contingency plan. The EPA deferred to Ecology for a follow-up. Ecology issued a follow-up letter (dated January 28, 1992) to Mr. Gary Smith of CTC, asking for corrections to the plan. Mr. Tom Smith of CTC sent a letter (dated 5 March 1992) outlining corrections to the contingency plan.

The RCRA total notifiers report does not list TSD facilities located within one-half mile of the subject site. The TSD CORRACTS report (dated September 10, 1997) does not list a TSD CORRACTS facility that is situated within one mile of the subject site.

8.4 Underground Storage Tanks

Ecology's report of registered USTs (dated July 10, 1997) lists registered USTs in the state of Washington. **The review of the report did not reveal an UST facility on the subject site, but one adjoining site is**

listed. The adjoining facility is listed as WESTERN PETERBILT at 3707 AIRPORT WAY SOUTH located northeast of the site on the opposite side of South Charlestown Street and 7th Avenue South. This facility is listed as having two USTs that have been closed in-place. The Western Peterbilt facility is also listed as a leaking UST facility and is discussed in Section 8.5.

While the subject site reportedly had USTs in the past, they do not appear on the state UST listing, likely because they were never registered with Ecology.

8.5 Leaking Underground Storage Tanks

Ecology's leaking UST (LUST) list is limited to reported leaking USTs. **A review of Ecology's listing of LUST facilities dated July 10, 1997 revealed 23 LUST facility located within approximately one-half mile of the subject site.** The two nearest LUST facilities are WESTERN PETERBILT at 3703 AIRPORT WAY SOUTH located to the northeast on the opposite side of 7th Avenue South and South Charlestown Street; and OWL TRANSFER & STORAGE CO., INC. at 3623-6TH AVE SOUTH, located to the west on the opposite side of 6th Avenue South. Neither of these facilities are in positions that appear to be immediately hydrologically tributary to the subject site, based on the topography. In addition, both facilities are listed as having their soil affected by a release. Since groundwater, a mobile media that can transport contamination from site to site, has reportedly not been affected, there is a reduced risk that the reported contamination would migrate to the subject site.

The remaining 21 LUST facilities are situated in positions that appear to be hydrologically non-tributary to the subject site, based on the topography, and thus it is unlikely contamination at these 21 facilities would migrate to the subject site.

8.6 Emergency Response Notification System Spill Report

The Emergency Response Notification System (ERNS) Spill Report is a national database used to collect information on reported accidental releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the United States Coast Guard, the National Response Center, and the United States Department of Transportation. **A review of the yearly ERNS lists, dated from October 1987 through January 1997, did not reveal the subject site to be listed.**

8.7 Landfills

Two listings/studies/reports of landfills compiled by Ecology and the local health department were reviewed for landfills located within an approximate one-half mile radius of the subject site. The reviewed documents included the Seattle-King County Department of Public Health's "Abandoned Landfill Study in King County" (April 30, 1985), and Ecology's listing of Municipal Solid Waste (MSW) facilities located in the state of Washington (dated November 22, 1996). **The reviewed listings/studies/reports do not include landfill sites located within one-half mile of the subject site.**

The subject site and area are former tidelands that were filled in the early part of this century. The site was also filled with 5,000 cubic yards of soil in the early 1970s, according to City of Seattle permit records. A 1946 aerial photograph appears to show landfill activities to the north of the site.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The Phase I revealed recognized environmental conditions associated with the site including the following:

1. Four USTs were reportedly removed from the site in 1990. An approximate 10,000-gallon UST containing diesel was at the southwest corner of site. Three USTs from 500 to 1,000-gallons were located north of the site building. These three USTs contained motor oil, used oil, and gasoline.

   The diesel UST was removed and associated soil contamination was found on the north and east sidewalls of the excavation (Excavation A). The diesel release reportedly appeared to be from spillage and not from a leak in the UST. The contaminated soil was excavated from the north and east sidewalls until laboratory testing of sidewall soils showed concentrations of TPH below cleanup levels. Soil from the bottom of Excavation A was not tested for TPH.

   The three-UST excavation (Excavation B) also had associated petroleum contamination. Some of the affected soil was removed. Reportedly, however, petroleum contaminated soil was left in place on the south and west walls of the excavation because it extended beneath the site building and a loading ramp. Laboratory certificates for the testing of Excavation B indicate two sidewalls were left with TPH concentrations of 6,600 ppm and 3,200 ppm. ADaPT was unable to verify to which sidewall these concentrations belong. The current Washington MTCA Method A cleanup levels for industrial soil is 200 ppm for diesel and heavy oil range TPH, and 100 ppm for gasoline range TPH. ADaPT was not provided with information that shows soil samples were collected and tested from the bottom of Excavation B.

2. The storm sewer system for the site is not connected to the city's system. Three catch basins in the site's wash pad are reportedly plugged and there is no discharge from the pad. Waste water that accumulates on the pad is removed by vacuum truck and reportedly disposed of at a facility in Tacoma. Four other catch basins on site reportedly discharge to an area near the southeast corner of the site. It is unknown if the discharge point is on site, or on 7th Avenue South. Truck maintenance and washing by the current and the past site tenant raises the possibility of the past use of chlorinated solvents on site. Wash areas, maintenance areas, catch basins, and drain systems are suspect release or accumulation points for chlorinated solvents.

In ADaPT's opinion, it would be prudent to perform an assessment to evaluate whether a release of hazardous substances has occurred in the area of the above listed items. The assessment would include the collection of soil samples from beneath the site and testing of the samples for total petroleum hydrocarbons and chlorinated solvents. The samples would be collected using a Geoprobe drill rig.

One assessment area would be related to the USTs. Soil from the three-UST area would be assessed to see whether the petroleum contamination that was left in place has migrated, and to assess the soil from the bottom of the former excavation. The diesel UST area would be assessed to document whether the

petroleum release extended below the bottom of the former UST excavation and possibly contacted the groundwater

The second assessment area would be related to vehicle wash and maintenance areas, and the on-site storm sewer system. These areas would be assessed for possible chlorinated solvent releases

In addition to the UST and chlorinated solvents issue, the site had other recognized environmental conditions. Prior to early 1996 when the site was connected to the city sewer system, the site's sanitary wastewater was discharged to an on-site septic system. Hazardous substances that may be deposited into a septic system can leach into the subsurface of the site. According to Mr. Jackson; however, the only wastewater discharged to the septic system was from restrooms.

An underground petroleum pipeline reportedly traverses the north end of the site. The Olympic Pipeline Company owns the pipeline, and according to a company spokeswoman, the company assumes responsibility and cleanup costs for releases from the pipeline.

The site and subject area were formerly a tideland that was filled in the early part of this century. Reportedly, 5,000 cubic yards of fill were imported to the site in the early 1970s. ADaPT did not document the origin of fill material deposited on the site. A possible waste landfill appears to have operated north of the site in the 1940s, between the site and South Spokane Street. It does not appear, based on a 1946 aerial photograph, that this landfill extended to the subject site. It is conceivable that suspect materials were used as fill on the site, but this is not documented. The fill beneath the site can be evaluated in concert with the recommended assessments related to the USTs and chlorinated solvents.

ADaPT appreciates the opportunity to be of service to you on this project. Should you have any questions concerning this report, or if we can assist you in any way, please contact us at (206) 749-9018 or (206) 654-7045.

Respectfully Submitted,

ADAPT ENGINEERING, INC.

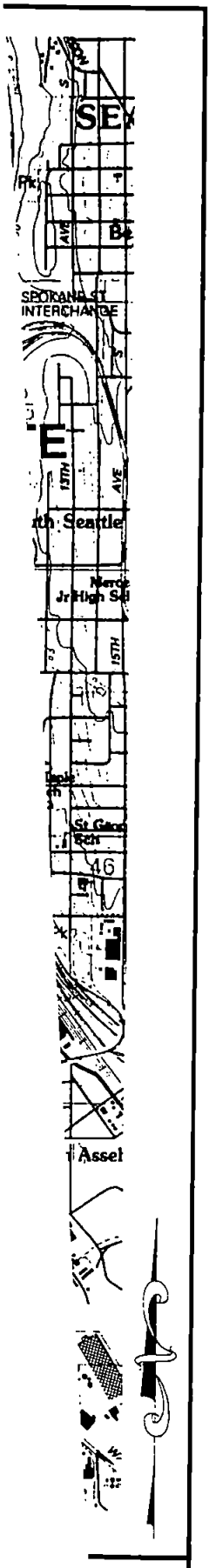
Adam E. Escalona
Environmental Assessor

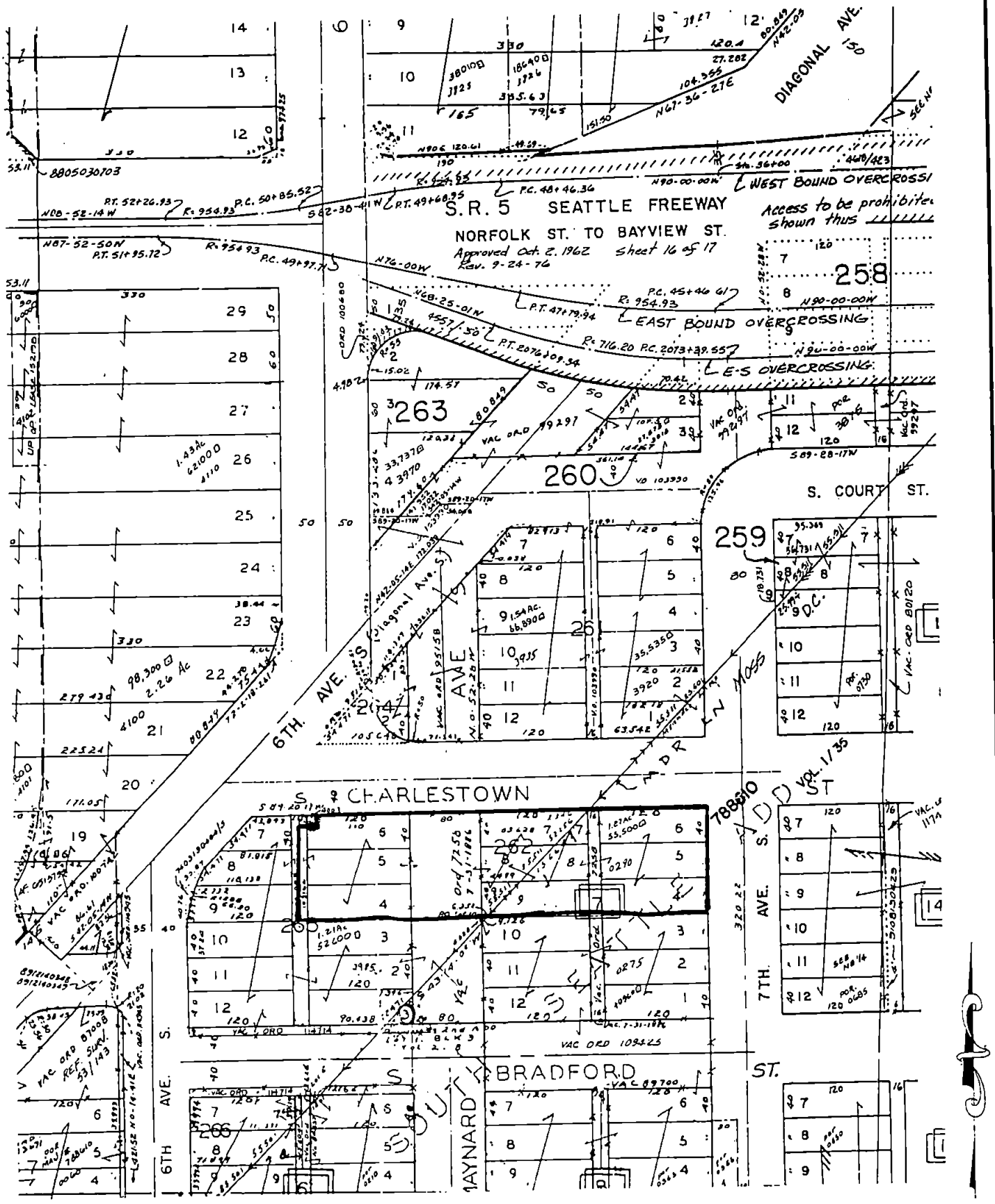
Daryl S. Petrarca, R.E.A.
Vice President of Environmental Services
Senior Reviewer

AEE/aee

APPENDIX A

FIGURES





ADaPT Engineering, Inc.

800 Maynard Avenue S., Suite 403
Seattle, Washington 98134
Ph : 206.654.7045 Fax : 206.654.7048

FIGURE 2 - Parcel Map

Location : 3801 – 7th Avenue South
Seattle, Washington
Client : Mr. Jack Jackson & Ms. Jan Siers
Date : 10/7/97 **Job # :** S-WA-97-576

APPENDIX B

UST RECORDS

Daniel Boone Paint Co.

15701 NELSEN PLACE SO.
TUKWILA, WA 98188
(206) 228-7767

JO
CIT
TAKE
QUOTE TO:
DATE:

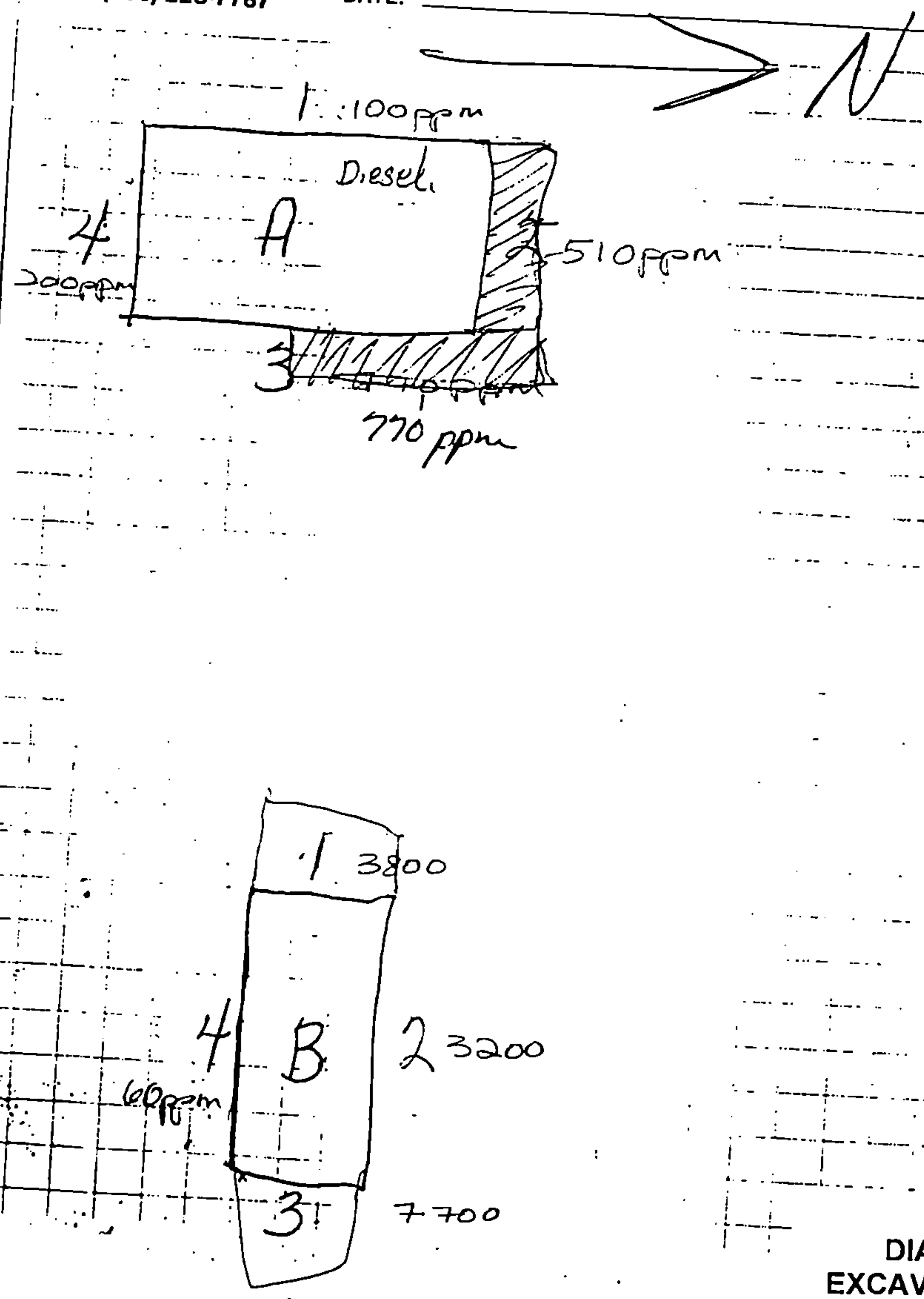


DIAGRAM OF UST EXCAVATIONS FROM MR. JACKSON'S FILE

ROUND TESTING, INC.
...OX 16204 SEATTLE, WA 98116
...932-0206

MARINE CHEMIST CERTIFICATE

SERIAL NO.

...STAL - Tom — Requested by
COASTAL — Vessel Owner or Agent
MAY 10, 1990 — Date

SEE BELOW
STEEL CYLINDRICAL TANKS — Type of Vessel
RUSSEL WAY LOT — Specific Location of Vessel

...ESEL FUEL — Last three (3) Cargoes
O_2, LEL — Test Method
12:15 pm — Time Survey Completed

TWO 1,000 - GALLON TANKS
ONE 10,000 - GALLON TANK
} SAFE FOR HOTWORK (INERTED WITH CARBON DIOXIDE)

HOTWORK COMPLETE AT 12:45 pm

In the event of any physical or atmospheric changes adversely affecting the gas-free condition of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

QUALIFICATIONS: Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or reissue of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

SAFE FOR WORKERS Means that in the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent by volume, and that, (b) toxic materials in the atmosphere are within permissible concentrations, and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

NOT SAFE FOR WORKERS Means that in the compartment or space so designated, the requirements of Safe for Workers has not been met.

SAFE FOR HOT WORK: Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks, or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

NOT SAFE FOR HOT WORK Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

SAFE FOR REPAIR YARD ENTRY Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

CHEMIST'S ENDORSEMENT This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306-1980 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

The undersigned acknowledges receipt of this Certificate under Section 2.3 of NFPA 306 1980 and understands conditions and limitations under which it was issued.

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Received: Name / Company / Date

Signed: Don Sly — Marine Chemist   598 — Certificate No.

[redacted]

VESSEL POSTING

MARINE CHEMIST CERTIFICATE FOR INTERTING USTS

TANK DISPOSAL RECEIPTS FROM THE PURDY COMPANY OF ILLINOIS

ATTN.

COMPANY NAME Coastal Tank Cleaning, Inc

ADDRESS

CITY STATE ZIP

DATE TRUCK # TRAILER #

CONTRACT # P.O. #

SALE ☐ PURCHASE ☑

BILL OF LADING # DRIVER ON ☑ OFF ☐

LBS. GROSS

LBS. TARE 3 - 1,000 gals. 3801 Tank S.

G.WEIGHT 37740Lb
SEQ.# 6057
03:39PM 05/18/90

LBS. NET

G.WEIGHT 35180Lb
SEQ.# 6065
04:02PM 05/18/90

LBS. GROSS

✓ 2,560

LBS. TARE

LBS. NET

MATERIAL #1 UNP @ 40NT ✓ 51.20
(TANK)

WEIGHED BY

RECEIVED BY

ATTN.

COMPANY NAME Coastal Tank Cleaning, Inc

ADDRESS

CITY STATE ZIP

DATE TRUCK # TRAILER #

CONTRACT # P.O. #

SALE ☐ PURCHASE ☑

BILL OF LADING # DRIVER ON ☑ OFF ☐

LBS. GROSS

LBS. TARE

G.WEIGHT 45720Lb
SEQ.# 5880
08:54AM 05/18/90

LBS. NET 12,000 gal tk. 3801 Tank S.

LBS. GROSS

LBS. TARE

G.WEIGHT 35200Lb
SEQ.# 5887
09:09AM 05/18/90

10,520

LBS. NET

MATERIAL #1 UNP @ 40NT 210.40
(TANK)

WEIGHED BY

RECEIVED BY

...EXCAVATING INC.
...- Edmonds Rd. Suite 101
Lynnwood, WA 98037 - 5109
(206) 775-9835 or (206) 353-6355

Date: .../90 | No. 15391
Truck No.: | Truck Charges:
Truck Type: | Driver Charge:
Truck Rate: | Sub Total:
Truck Hours: | *Add Charges:
Driver Hours: | Total Charges: $10,000.00

COASTAL TANK CLEANING
6th AVE SO. YARD

Billing Address:

Job Number:

Stop: | Lunch: | Downtime: | Reason:

From	To	No. Loads	Hours
DEMOLISH BUILDING + BREAKUP CONCRETE + BLOCKS			
REMOVE (1) 10,000 GAL. DIESEL TANK			
(1) PUMP ISLAND			
(3) 1000 GAL. WASTE OIL TANKS		LUMP SUM	
BACKFILL WITH SELECT PIT RUN BACKFILL		$10,000.00	
COMPACT BACKFILL TO SUBGRADE			

Oil: | Total Miles: | Total Miles Off-Hiway:

CURT, TIM, BRAD

Auth. Co. Rep. Signature:

...s truck invoice will be considered your notice of our intent to lien this project, if necessary. Interest at 1½% per month will be charged on all past due accounts. Charges due by the tenth of the month following date of this billing.

RECEIPT FOR THE UST REMOVAL BY BRAD MASON TRUCKING & EXCAVATING

H

City of Seattle
Norman B. Rice, *Mayor*

King County
Tim Hill, *Executive*

Seattle-King County Department of Public Health

Bud Nicola, M.D., M.H.S.A., *Director*

TO: Rod Hansen, Manager, King County Solid Waste Division
ATTN: Mel Andriesen, Cedar Hills

FROM: Bill Lawrence, Environmental Health Specialist
Chemical/Physical Hazards Program

DATE: June 18, 1990

SUBJECT: WASTE MATERIAL CLEARED FOR DISPOSAL AT CEDAR HILLS LANDFILL

This is to advise you that we find that the waste material listed from the following company is a solid waste, and if disposed of in King County, must be disposed at Cedar Hills.

Generator:	Coastal Coatings 3801 - 7th Ave. S. Seattle, WA 98108	Contact: Tom Smith 624-9843
Transporter:	Coastal Tank Cleaning 3801 - 7th Ave. S. Seattle, WA 98108	Contact: Tom Smith 624-9843

Delivery must be scheduled with Mel Andriesen at 296-4490.

Material: Soil associated with the excavation of #2 fuel oil and gasoline tanks located at 3801-7th Ave. S., Seattle.

Amount: 200 cubic yards.

Approximate total weight 300 tons.

Frequency: This one time only

Expiration Date: 9-18-90

Consulted with: Mel Andreisen (6-18-90)

The above substances were found not to meet the State DOE definitions for either extremely hazardous waste or dangerous waste or Federal EPA criteria for hazardous waste or toxic substances. A summary of the available chemical analysis is attached, if applicable.

Downtown Public Health Center
14th Floor, Public Safety Building 610 Third Avenue (at James Street) Seattle, Washington 98104 (206) 296-4735

Central Environmental Health Center
172-20th Avenue Seattle, Washington 98122 (206) 296-4632

SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH SOIL DISPOSAL LETTER (PAGE 1)

Please note that it is only the described materials that are acceptable for disposal. Any other type of questionable waste from this company will require separate review and analysis.

If you have any questions or need additional information, please call me at 296-4633 (FAX 296-0188).

BL:jl(Bill2)CTC

cc: Winnie Hooker, EPA
John Conroy, Hazardous Waste, Northwest Office DOE
Gary Irvine, EHS Supervisor, Southeast EHS Office
Wallace Swofford, EHS Supervisor, Smith Tower, SKCDPH
Deborah Lambert, KCSW
Generator and Transporter listed above.

Attachment

SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH SOIL DISPOSAL LETTER (PAGE 2)

Other: Coastal Coatings
Materials: Soil

Date: 6/18/90

WAC 173-303	TITLE OR TEST	DONE	RESULT	COMMENTS
-090	D.W. Characteristics a) Ignitability b) Corrosivity c) Reactivity d) E.P. Tox			
-101	Toxic D.W. a) Equivalent Conc. b) Bioassay			
-102	Persistent D.W. a) Halogenates b) PAH's			
-103	Carcinogenic D.W.			
Other	a) TPH b) B-E-T-X	a) Y	a) l.t. 7,000 ppm	

Abbreviations

Y = Yes; N = No; NA = Not Applicable;
WAC = Washington Administrative Code; E.P. Tox = Extraction Procedure Toxicity;
D.W. = Dangerous Waste; PAH = Polycyclic Aromatic Hydrocarbons;
D.O.E. = Department of Ecology;
l.t. = less than
B = Benzene; E = Ethylbenzene; T = Toluene; X = Xylenes - total unless otherwise specified
TPH = total petroleum hydrocarbons; EDB = Ethylene dibromide
ND = Not Detected

PROVISIONERS
SEATTLE DENVER MODESTO SALT LAKE

PROVISIONERS EXPRESS, INC.
☐ 2102 WEST VALLEY HIGHWAY N.
P.O. BOX 989
AUBURN, WA 98071-0989
(206) 735-2500

☐ 400 WINMOORE WAY
MODESTO, CA 95358-5700
(209) 531-1270

September 30, 1997

Robert L. Boggess
4233 Meridian Ave. North
Seattle, WA 98103-7601

Dear Mr. Boggess,

Per our conversation of today, the tanks at the property located at 3801 7th Ave. South were installed when I was an employee of Provisioners Express, Inc. I was on site at the time that they were installed along with another employee that is still employed at Provisioners Express, Inc. We both agree that there were four tanks installed initially; one large tank that was to hold diesel fuel was located at the south-west corner of the property, under a small shop building that I believe has been torn down. The other three tanks were five hundred gallons each and they were located at the edge of a side walk that ran along the north-east side of the building near the large roll-up door for the other shop in the main building, east of the loading dock.. These tanks were used for storage of gasoline, waste oil and new oil. All four tanks could have been removed by digging two holes.

To the best of my knowledge this is where the tanks were located. When Provisioners Express, Inc. vacated the building in 1988 these tanks were in place. It is my understanding that since that time all four tanks have been removed.

I hope this will answer your questions and alleviate any concerns.

Sincerely,

David G. Pollart
President

THANK YOU FOR SHIPPING VIA PROVISIONER

LETTER FROM MR. POLLART DISCUSSING THE UST LOCATIONS

APPENDIX C

SOIL SAMPLING LABORATORY CERTIFICATES

"F"

ANALYTICAL RESOURCES INCORPORATED

Analytical Chemists & Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET - Method 602/8020
BETX by GC-PID

Matrix: Soil
Level: Low

QC Report No: 6304 - Coastal Tank
Project: - - - - -
Date Received: 05/17/90

Data Release Authorized: _____
Report prepared: 05/21/90 - MAC:C (cpg)

Sample No.	Method Blk.	1B	1B	2B	3B	4B
ARI ID	0518MB	6304 E	6304 E RE	6304 F RE	6304 G RE	6304 H RE
Date Analyzed	05/18/90	05/18/90	05/18/90	05/18/90	05/18/90	05/18/90
Amt Analyzed	0.1 g (equiv)	0.085 g	0.043 g	0.020 g	0.010 g	0.011 g
CAS Number / Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
71-43-2 Benzene	50 U	130	140	250 U	490 U	480 U
108-88-3 Toluene	50 U	59 U	120 U	250 U	490 U	480 U
100-41-4 Ethylbenzene	50 U	100	120 U	250 U	490 U	480 U
1330-20-7 Total Xylenes	100 U	380	260	510 U	970 U	950 U
Trifluorotoluene	*79.2%*	*99.8%*	*89.6%*	*101%*	*84.8%*	*83.4%*
Bromobenzene	*74.8%*	*121%*	*96.4%*	*108%*	*88.0%*	*78.4%*

Sample No.	2B	3B	4B
ARI ID	6304 F	6304 G	6304 H
Date Analyzed	05/19/90	05/19/90	05/19/90
Amt Analyzed	0.079 g	0.082 g	0.085 g
CAS Number / Units	µg/kg	µg/kg	µg/kg
71-43-2 Benzene	63 U	61	59 U
108-88-3 Toluene	63 U	61 U	59 U
100-41-4 Ethylbenzene	76 U	85 U	59 U
1330-20-7 Total Xylenes	370	440	120 U
Trifluorotoluene	*117%*	*107%*	*111%*
Bromobenzene	*150%*	*153%*	*116%*

ue If the result is a value greater than or equal to the detection limit, report the value.

Indicates compound was analyzed for but not detected at the given detection limit.

Indicates an estimated value when result is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required.

BTEX TEST RESULTS FROM SOIL SAMPLES SUBMITTED TO ARI ON 05/17/90

ANALYTICAL
RESOURCES
INCORPORATED

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

ORGANICS ANALYSIS DATA SHEET
PCB Analysis

Matrix: Soil

QC Report: 6304 - Coastal Tank Drilling
Project: -----
Date Received: 05/17/90

GPC Cleaned: NO
Acid Cleaned: No
Alumina Cleaned: No

Data Release Authorized
Report prepared: 05/23/90 - MAC:C cpg

Reported in ppm (mg/kg)

Sample #:	Method Blk	4B
ARI Lab ID:	*0522MB*	*6304H*
Date Extracted:	*05/22/90*	*05/22/90*
Date Analyzed:	*05/22/90*	*05/22/90*
Dry Weight::	*4.0 g*	*4.3 g*
Dilution:	*1:40*	*1:40*
1016/1242	1.0 U	1.0 U
1248	1.0 U	1.0 U
1254	1.0 U	1.0 U
1260	1.0 U	1.0 U
DBC %Rec	*75%*	*80%*

U Indicates compound was analyzed for but not detected at the given detection limit.
NR Indicates compound not reported due to chromatographic interference and/or dilution.

BTEX TEST RESULTS FROM SOIL SAMPLES SUBMITTED TO ARI ON 05/17/90

ANALYTICAL RESOURCES INCORPORATED

Analytical Chemists & Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

TOTAL PETROLEUM HYDROCARBONS by IR Scan
Modified EPA Method 418.1

Matrix: Soil

Project: .....
QC Report No: 6304 - Coastal Tank
VTSR: 05/17/90

Data Release Authorized: [signature]
Reported: 05/21/90 - MAC/C.G.

Date Prepared: 05/21/90
Date of Analysis: 05/21/90

Lab ID	Client Sample ID	Dilution Factor	TPH (ppm)
6304 MB	Method Blank	1	0 U
6304 A	1A	1	100
6304 B	2A	1	510
6304 C	3A	1	770
6304 D	4A	1	200
6304 E	1B	25	3800
6304 F	2B	25	3200
6304 G	3B	25	7700
6304 H	4B	1	60

Values reported in ppm (mg/Kg) based on wet weight of sample

U Indicates compound was analyzed for but not detected at the given detection limit.

modified 8015.
GCFID
Freon Extract.

TPH TEST RESULTS FROM SOIL SAMPLES SUBMITTED TO ARI ON 05/17/90

Chain of Custody Record & Laboratory Analysis Request

Date: 5/30/90

Page 1 of 1

Number of coolers: ____

ANALYTICAL RESOURCES INCORPORATED
333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

Project: Tank Removal | Assigned Lab ID:

Client Contact: Tom Smith

Phone: 624-9845

Samplers: Coastal Tank

Sample ID	Date	Time	Matx	No Cont	Lab ID	Analysis Requested: 418.1 TRPH	Analysis Requested: EPA 1x Metals	Other
Stock Pile						V		
2A						V		
3A						V		
1B						V		
3B						V		
Tom Diesel							V	

Comments/Special Instructions:

Relinquished by: (Signature)	Mike Hubbard		
Printed Name:	Mike Hubbard		
Company:	Coastal Tank Cleaning		
Date: 5-30-90 Time:	1500		
Received by: (Signature)	Jan Falkins		
Printed Name:	Jan Falkins		
Company:	A.R.I.		
Date: 5/30/90 Time:	1500		

Relinquished by: (Signature)		
Printed Name:		
Company:		
Date: Time:		
Received by: (Signature)		
Printed Name:		
Company:		
Date: Time:		

Relinquished by: (Signature)		
Printed Name:		
Company:		
Date: Time:		
Received by: (Signature)		
Printed Name:		
Company:		
Date: Time:		

CHAIN-OF-CUSTODY FOR SOIL SAMPLES SUBMITTED TO ARI ON 05/30/90

ANALYTICAL RESOURCES INCORPORATED

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, WA 98109-5187
(206) 621-6490
(206) 621-7523 (FAX)

TOTAL PETROLEUM HYDROCARBONS by IR Scan
Modified EPA Method 418.1

Matrix: Soil

Project: Tank Removal
QC Report No: 6378 - Coastal Tank
VTSR: 05/30/90

Data Release Authorized _____
Data Prepared: 06/01/90 - MAC:C C.G.

Date Prepared: 06/01/90
Date of Analysis: 06/01/90

Lab ID	Client Sample ID	Dilution Factor	TPH (ppm)
6378 MB	*Method Blank*	*1*	10 U
6378 A	Stockpile	25	6300
6378 B	2A	1	390
6378 C	3A	1	1100
6378 D	1B	1	700
6378 E	3B	1	610

Values reported in ppm (mg/Kg) based on wet weight of sample

U Indicates compound was analyzed for but not detected at the given detection limit.

TPH TEST RESULTS FROM SOIL SAMPLES SUBMITTED TO ARI ON 05/30/90

Redmond, WA 98052 206

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
	3801 7TH AVE S

SAMPLERS: *(Signature)*

GLEN ANDERSON

Client Name: Coast Coatings Inc.
Client Address: 3801 7th Ave. S.
Client Phone: 624-9843
Contact Person: Tom Smith
P.O. No.:

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH
	8/6/90	8:20		X	3801 7th Ave S	1B	X
					"	3B	X
					"	2A	X
					"	3A	X
	↓	↓		↓	Barrel Jim Diesel	Stock	X

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
C.L.B Anderson	8/6/90 11:45				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		Phillip Mitchell	8/6/90 11:45am		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

CHAIN-OF-CUSTODY FOR SOIL SAMPLES SUBMITTED TO AM TEST ON 08/06/90

"G"

Final Results

AMTEST

8-1

Professional
Analytical
Services
14603 N.E. 87th St.
Redmond, WA
98052
Fax: 206 883 1435
Tel: 206 885 1664

ANALYSIS REPORT

CLIENT: Coastal Coatings, Inc.

REPORT TO: Tom Smith
3801 Seventh Avenue South
Seattle, WA 98108

DATE RECEIVED: 8/6/90

DATE REPORTED: 8/14/90

PROJECT: 3801 Seventh Avenue South

Laboratory Sample Nos.	Client Identification	Total Petroleum Hydrocarbons (ug/g as received)
018129	1A	6,600.
018130	2A	<5.0
018131	3A	<5.0
018132	3B	<5.0
018133	Stock	81,800.

< = less than

KF/pb

REPORTED BY Kathy Fugiel

TPH TEST RESULTS FROM SOIL SAMPLES SUBMITTED TO AM TEST ON 08/06/90

SAMPLE 1A MAY BE MISLABELED AND ACTUALLY BE SAMPLE 1B (SEE CHAIN-OF-CUSTODY)

APPENDIX D

TAX ASSESSMENT RECORDS

LAST BUILDING.
AS34 TXAS
AN07

KING COUNTY DEPARTMENT OF ASSESSMENTS
COMMERCIAL/INDUSTRIAL PROPERTY CHARACTERISTICS

08/26/97 AI110M50
10:53:14 AI110P50

ACCOUNT NUMBER: 788610-0290-0 TAXABLE
TAXPAYER NAME: JACKSON JACK A+JANET C
PROPERTY NAME: WAREHOUSE

PROPERTY ADDRESS: 3801 7TH AV S
QTR: NW SEC: 17 TWN: 24 RNG: 04 FOLIO: C02904- - SEATTLE
LAND USE: (502) INDUSTRIAL-WAREHOUSE 2 TO 10K SF AREA: 320
LEVY-CODE: 0010

* L A N D D A T A *	* * * * * * * * * * * * * * * I M P R O V E M E N T S S U M M A R Y * * * * * * * * * * * * * * * * * * *
JURISDICTION: SEATTLE	DESCRIPTION:
ZONE ACTUAL: IG2U/85	YEAR-BUILT: 73
ZONE CODE: INDUSTRL	EFF YEAR: 85
SQ FEET: 55,500	LOT COVERAGE: 6,192
CORNER LOT: YES	* B U I L D I N G 01 * * * * * * * * * * * * * * * * * * *
WATERFRONT:	DESCRIPTION: FROZEN FOOD TRANSPORT
PERCENT USABLE: 100	YEAR BUILT: 73
TOPOGRAPHY:	EFF YEAR: 85
SHAPE: IRREGULAR	% COMPLETE: 100
ACCESS: STANDARD	* * * * * * * * I N T E R I O R S E C T I O N S * * * * * * * *
VISUAL EXP: STANDARD	
OPEN SPACE: NO	
RESTRICTIVE COND: NO	
CONTAMINATED PROP: NO	

NUMBER OF BLDGS: 1 GROSS AREA: 9,052
CLASS: MASONRY NET AREA: 8,112
QUALITY: AVERAGE
NUMBER OF UNITS:

NUMBER OF STORIES: 1 GROSS AREA: 9,052
CLASS: MASONRY NET AREA: 8,112
QUALITY AVERAGE HEATING: CNTRL COMB
SPRINKLERS: NO

SECTION	USE CODE & DESCRIPTION	STORY HEIGHT	NET AREA
1	E01-OFFICE AREA	21	3,840
2	D12-WAREHOUSE	21	4,272
3	D80-MEZZANINE,STORAGE	10	940

* A C C E S S O R Y S U M M A R Y *

UNT: 788610 0290 0 NEXT BLDG: JUMP CODE:
--PF2--PF3--PF4--PF5--PF6--PF7--PF8--PF9--PF10-PF11-PF12-PF13-PF14-PF15-PF16-PF17-PF18-PF19-PF20-PF21-PF22-PF23----PF24--
P END MENU CHAR HIST LEGL APPR BROW PF-HELP MENU+

TAX ASSESSMENT SITE CHARACTERISTICS DATA

SECTION 17 TWP 24 N. RANGE 4 EWM. BLOCK 265 TRACT OR LOT NO. 4 To Gaincl & For vac st adj Maynard Ave Legal C Back

DESCRIPTION

Limits OL

CODE NO. 1

E 2904

766620-3995 5760 0010

ADDRESS OF PROPERTY

FEE OWNER

CONTRACT PURCHASER 2932

LAND INFORMATION

1. SIZE OF TRACT OR LOT ___ X ___ TOPOGRAPHY ___ GRADE ___ FT. 2. STREET-ROAD Not thru SURFACE

ALLEY No 3. SIDEWALK No SEWAGE No WATER City PUMP ___ DRAINAGE

LANDSCAPING Seattle tide lands CONDITION ___ 5. TREND ___ VALUE OF LOT $ ___ FRONT STREET

FACTOR $ ___ SIDE STREET FACTOR $ ___ DEPTH FACTOR $ ___ CREDIT

6. USE ___ 7. DISTRICT

LAND USE	SOIL TYPE	CROPS-TIMBER STAND	NO ACRES	VALUE ACRE	VALUE
				$	$
					$
					$
					$

LAND SIZE 90 x 29339 TOTAL BO $

OWNER OR CONTRACT PURCHASER	DATE	FILE NO	PRICE	MTGE.	STAMP
City of Seattle	8/21/47		215076		
M. Shelby Jared	8-12-52	E56489	2850 (B)	mk	
[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	1-9-66	E62473	896,000	[illegible]	

DISTRICT: ROAD	SCHOOL	WATER	FIRE	
Seattle 1	1			METRO

ASSESSED VALUE LAND

LOT $

UNIMPROVED ACRES $

IMPROVED ACRES $

OTHER LANDS $

TIMBER $

TOTAL ASSESSED VALUE 50% $

DATE

REMARKS

ASSESSED VALUE — DECREASE OR INCREASE IN ASSESSED VALUATION

YEAR	AC.	LAND	DATE	BY	REASON	LAND DECREASE	LAND INCREASE
		111					
49		110	9/3/47	[illegible]			
49		110	1/19/48	[illegible]	2932		
19		[illegible]	[illegible]				
1956		430	6-54	EP	Merged		
		[illegible]	[illegible]				
65		5760	5-20-64	[illegible]	[illegible]		
1966		5730	7/20/65	[illegible]	[illegible]		[illegible]
71	L	11660	B		11660 766620-3995-0 473		
721		33850	5-2-72	[illegible]	BO		

EANT — KING COUNTY ASSESSOR — SEATTLE, WASHINGTON

FRAYN PRINTING CO., SEATTLE

ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 4 - 6 OF BLOCK 265 FOR THE SUBJECT SITE (PAGE 1)

NW

SECTION NW 17

TP 24 N

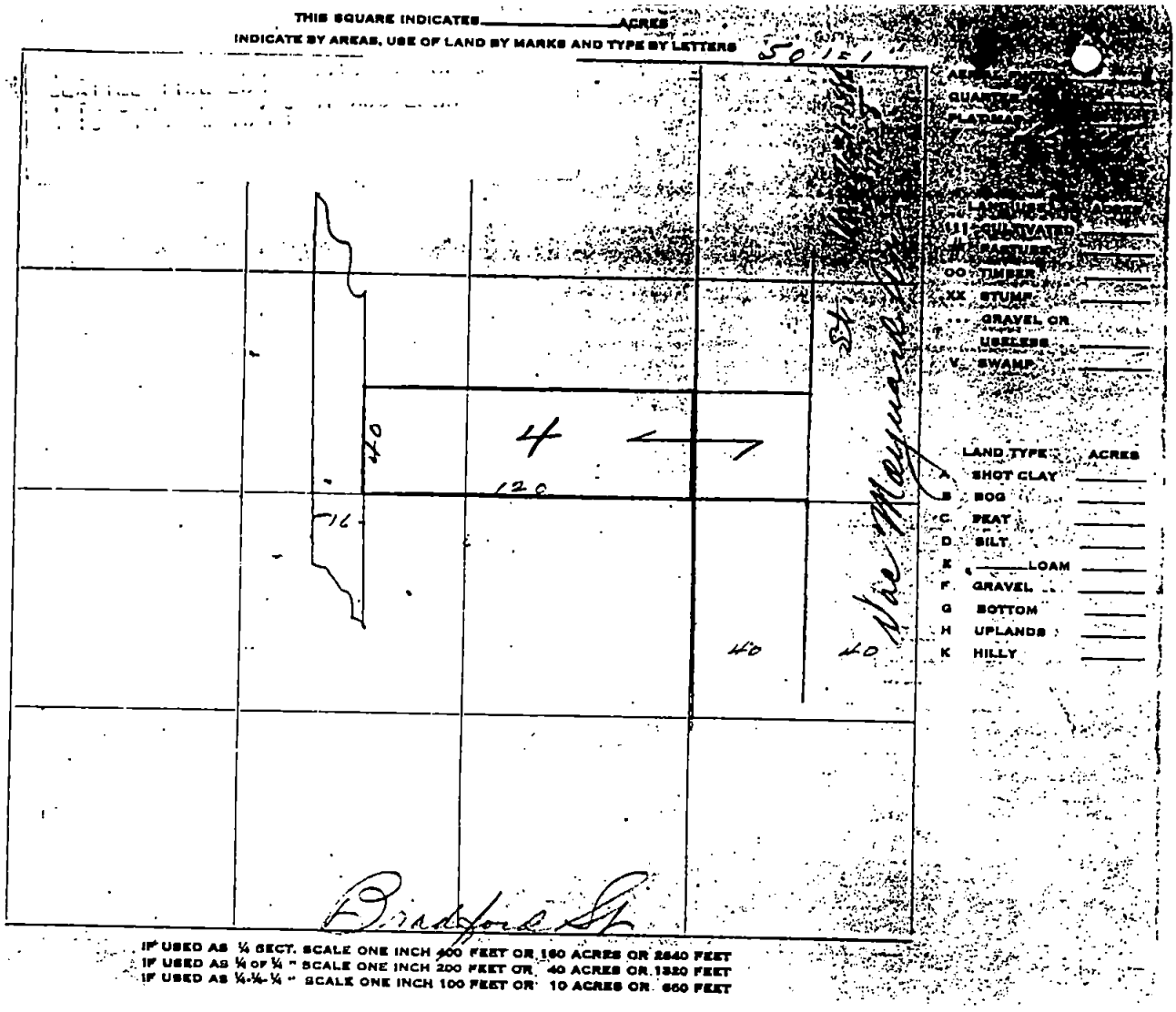
RANGE 4 E

TAX LOT NO.

PARCEL NO.

THIS SQUARE INDICATES _____ ACRES

INDICATE BY AREAS, USE OF LAND BY MARKS AND TYPE BY LETTERS



LAND TYPE	ACRES
A SHOT CLAY	
B BOG	
C PEAT	
D SILT	
E _____ LOAM	
F GRAVEL	
G BOTTOM	
H UPLANDS	
K HILLY	

IF USED AS ¼ SECT. SCALE ONE INCH 400 FEET OR 160 ACRES OR 2640 FEET
IF USED AS ¼ or ¾ " SCALE ONE INCH 200 FEET OR 40 ACRES OR 1320 FEET
IF USED AS ¼-¼-¼ " SCALE ONE INCH 100 FEET OR 10 ACRES OR 660 FEET

ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 4 - 6 OF BLOCK 265 FOR THE SUBJECT SITE (PAGE 2)

SECTION — TWP — N. RANGE — EWM. — BLOCK — TRACT OR LOT
DESCRIPTION

02

CODE NO. 1

766620-3950 4200 0010

ADDRESS OF PROPERTY
FEE OWNER — CONTRACT PURCHASER

LAND INFORMATION

1. SIZE OF TRACT OR LOT — X — TOPOGRAPHY — GRADE — 2. STREET/ROAD
ALLEY No — 3. SIDEWALK No — SEWAGE No — WATER City — PUMP — DRAINAGE
LANDSCAPING Seattle Tide Lands — CONDITION — 5. TREND — VALUE
FACTOR $ — SIDE STREET FACTOR $ — DEPTH FACTOR $ — CREDIT
6. USE — 7. DISTRICT

LAND USE	SOIL TYPE	CROPS-TIMBER STAND	NO. ACRES	VALUE ACRE	VALUE
				$	$
					$
					$
					$

LAND SIZE 72 x 293.39 — TOTAL

ASSESSED VALUE LAND
LOT $
UNIMPROVED ACRES $
IMPROVED ACRES $
OTHER LANDS $
TIMBER $
TOTAL ASSESSED VALUE 50% $
DATE
REMARKS

OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
City of Seattle	5/21/47		2150.76		
McMally, Jared	8-12-52	E56489	2850		
N'West Industrial Equipment Co.	5/4/53	E88986	Lots 8 & 9		
Lester A. Pillar et al	8-9-68	E635482	$96,000		

ADDN. BLK 7 LOTS 8 TO 9 INCL. SEATTLE

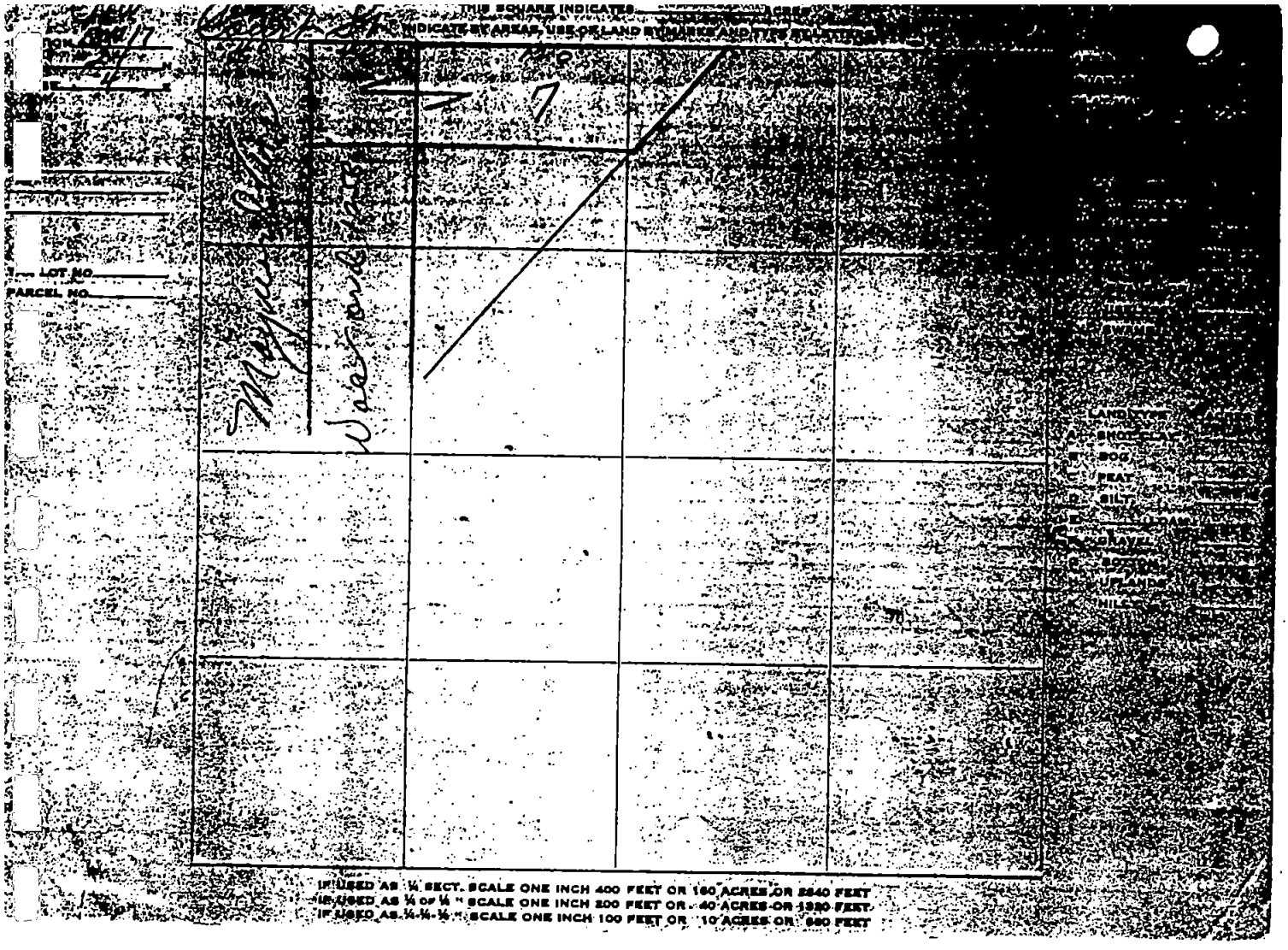
DISTRICT: ROAD	SCHOOL	WATER	FIRE
Seattle 1			

METRO

YEAR	AC.	LAND	DATE	BY	REASON	LAND DECREASE	LAND INCREASE
48		120					
49		120	10/3/47				
49		120					
1949		130	3-48		Rev.		
1956		300	6-54	EP	Merged		
59		1200	6/17/57	JJG			
65		4200	5-20-64				
71	L	8400	8	T	8400*766620-3950-0 8/9		
73		15450	4-23-73				

KING COUNTY ASSESSOR — SEATTLE, WASHINGTON — FRAYN PRINTING CO., SEATTLE

ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 7 - 9 OF BLOCK 262 FOR THE SUBJECT SITE (PAGE 1)



ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 7 - 9 OF BLOCK 262 FOR THE SUBJECT SITE (PAGE 2)

SECTION _______ TWP _______ N. RANGE _______ EWM. _______ BLOCK 7 _______ TRACT OR LOT NO. A With Vac. Alley - 4 to 9

DESCRIPTION

CODE NO. 1.

F 2904

788610

ADDRESS OF PROPERTY

FEE OWNER King CO T. D. (6-28-27)

CONTRACT PURCHASER 0290

LAND INFORMATION

1. SIZE OF TRACT OR LOT ___ x ___ TOPOGRAPHY level GRADE no FT. 2. STREET-ROAD no SURFACE no
ALLEY yesnot thru 3. SIDEWALK no SEWAGE no WATER city PUMP ___ DRAINAGE ___
4. LANDSCAPING natural CONDITION ___ 5. TREND static VALUE OF LOT $ ___ FRONT STREET
FACTOR $ ___ SIDE STREET FACTOR $ ___ DEPTH FACTOR $ ___ CREDIT ___
6. USE industrial 7. DISTRICT poor old

LAND USE	SOIL TYPE	CROPS-TIMBER STAND	NO. ACRES	VALUE ACRE	VALUE
				$	$
					$
					$
					$
LAND SIZE x 29339			TOTAL		

788610-0290 ~~5000~~ 0010

UNIMPROVED ACRES $

IMPROVED ACRES $

OTHER LANDS $

TIMBER $

TOTAL ASSESSED VALUE 50% $

DATE

REMARKS

OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
City of Seattle	8/21/47		215076		
[illegible]	8-12-52	E56489	2850	(13) mft	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	1-9-68	E6254.82	396,[illegible]	[illegible]	

DISTRICT: ROAD	SCHOOL	WATER	FIRE	
Seattle 1				METRO

YEAR	AC.	LAND	DATE	BY	REASON	LAND DECREASE	LAND INCREASE
19		110					
19		110	10/3/47				
19		110	1/4/49		2932		
19							
19		570	7-54		Mrg City of Legal Seg B		
19		2140	6-19-57				
19		5880	5-20-64				
19	L	11760	B		T 11760*788610-0290-9 87		
19							
19		26400	5-23-74				
19							

6396 (Chg Legal Seg 8-86 7J 1/85)

ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 4 – 9 OF BLOCK 7 FOR THE SUBJECT SITE (PAGE 1)

THIS SQUARE INDICATES _____ ACRES

INDICATE BY AREAS, USE OF LAND BY MARKS AND TYPE BY LETTERS

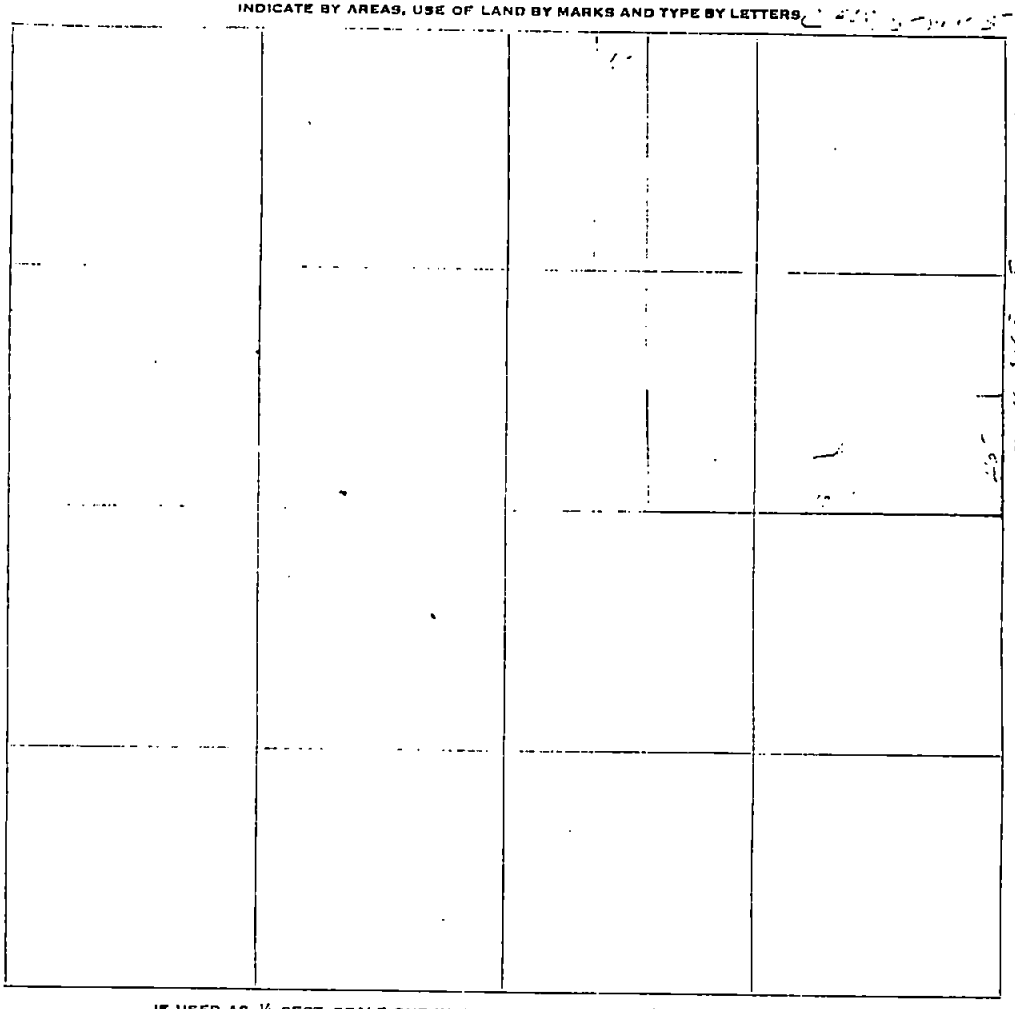
SECTION N W 17

TWP. 24 N

RANGE 7 E

TAX LOT NO. _____

PARCEL NO. _____



AERIAL PHOTO _____

QUARTER MAP _____

PLAT MAP 4 3490

LAND USE		ACRES
111	CULTIVATED	
#	PASTURE	
OO	TIMBER	
XX	STUMP	
...	GRAVEL OR USELESS	
V	SWAMP	

LAND TYPE		ACRES
A	SHOT CLAY	
B	BOG	
C	PEAT	
D	SILT	
E	_____LOAM	
F	GRAVEL	
G	BOTTOM	
H	UPLANDS	
K	HILLY	

IF USED AS ¼ SECT. SCALE ONE INCH 400 FEET OR 160 ACRES OR 2640 FEET
IF USED AS ¼ OF ¼ " SCALE ONE INCH 200 FEET OR 40 ACRES OR 1320 FEET
IF USED AS ¼-¼-¼ " SCALE ONE INCH 100 FEET OR 10 ACRES OR 660 FEET

ARCHIVE TAX ASSESSMENT RECORDS FOR LOTS 4 – 9 OF BLOCK 7 FOR THE SUBJECT SITE (PAGE 2)

APPENDIX E

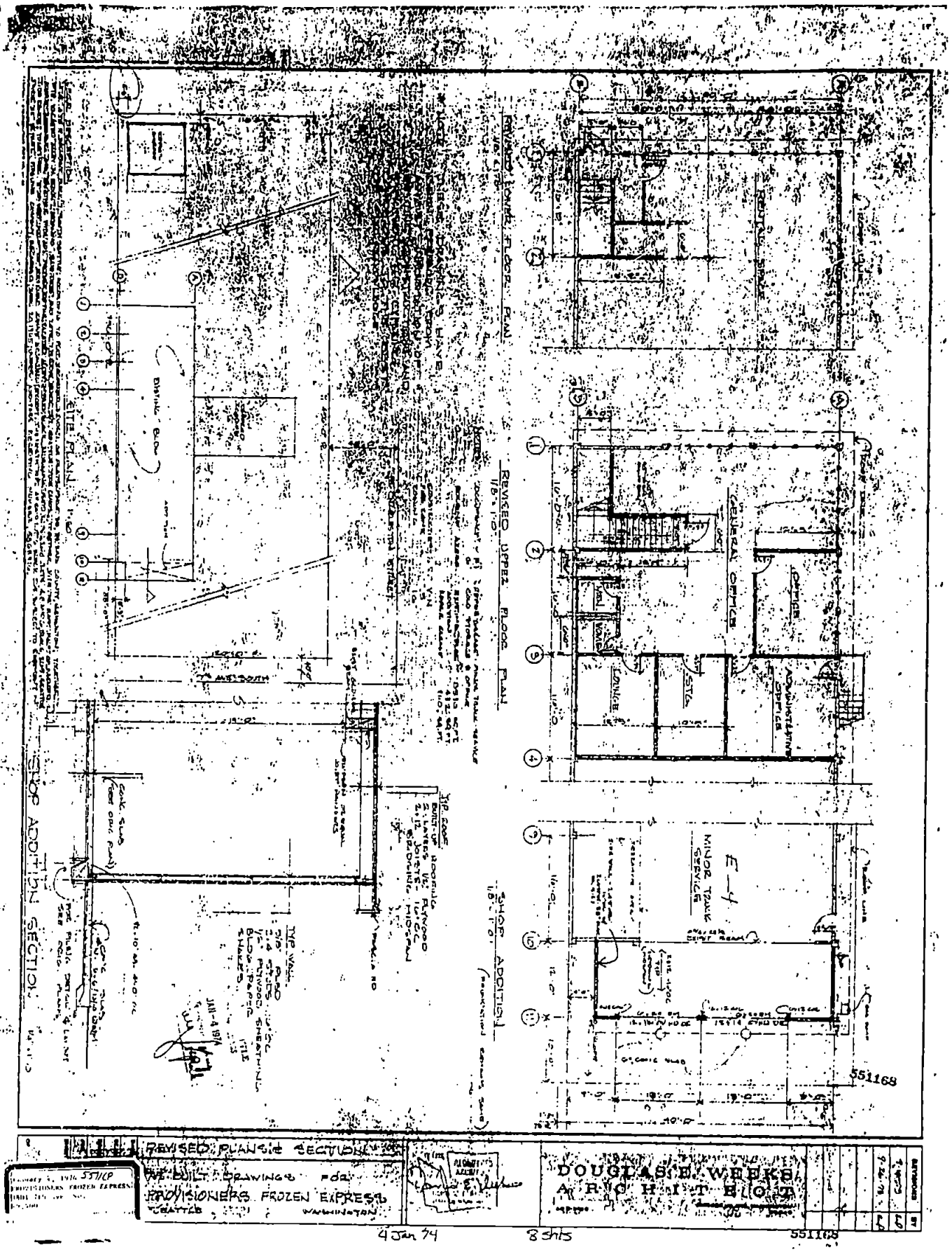
CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND LAND USE
RECORDS

PERMIT No. DATE MECHANICAL ELEVATOR PERMIT No. DATE ELEVATOR

3801-09 7th Ave S

BUILDING PERMIT	DATE	EST. COST	WORK	STO	SIZE	CONST	OCCUPANCY
543734	1972	7,000	Drive piling & const. foun. for future bldg.				
543920	1972	100,000	Const. bldg. per plans.	Part 2		VN	F-2 Ship. term. offc. & cold stor. B-4 Repair garage
548333	1973	10	Renewal permit #543920.	Part 2			F2 Ship. term. offc. & cold stor. B-4 Repair garage

DCLU PERMIT HISTORY CARD AND LEGAL DESCRIPTION



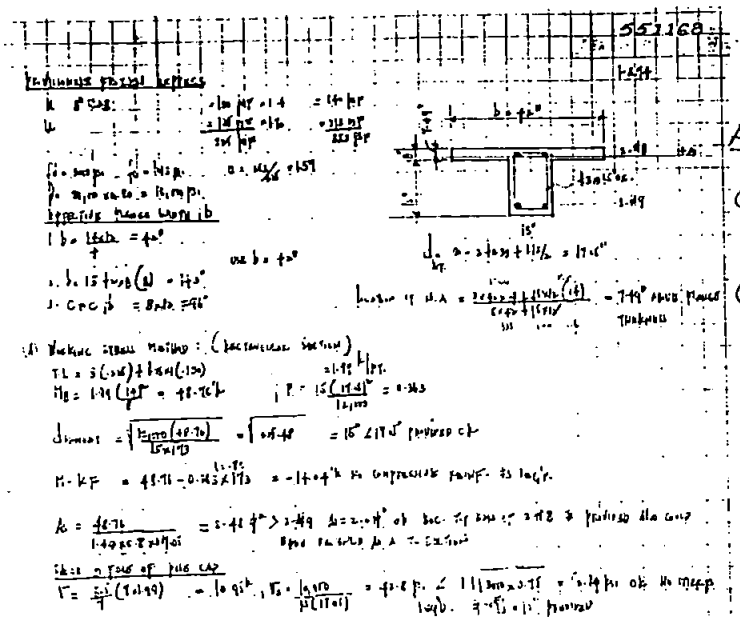
REVISED PLANS & SECTIONS
AS BUILT DRAWINGS FOR
PROVISIONERS FROZEN EXPRESS
SEATTLE, WASHINGTON

DOUGLAS E. WEEKS
ARCHITECT

4 Jan 74 8 Shts 551168

PLAN OF SITE BUILDING
FROM DCLU

551168



551168

ATTACHMENTS

1. CREOSOTING CERTIFICATES FOR ENTIRE PROJECT
2. PILE DRIVING RECORD FOR ENTIRE PROJECT.

PLEASE CALL ME IF YOU HAVE ANY FURTHER QUESTIONS.
I HAVE CALLED FOR THE OWNER TO MAKE NECESSARY CHANGES IN THE BOLTINGS AND HAVE VERIFIED WITH THE VARIOUS CONTRACTORS THAT THESE DRAWINGS ARE CORRECT.

RICHARD W. PERSON
232-8182

J. Baxter

Certificate of Treatment

To: PROVISIONERS FROZEN EXPRESS Date: MAY 26, 1972

Consignee: SAME Our Order Number: 40223

Destination: SEATTLE, WASHINGTON Customer's Number: HUBER

I, D. R. MANSFIELD, Plant Manager of RENTON, WASHINGTON pressure treating plant of J. H. BAXTER & CO., do hereby certify that the following material supplied by us on your above referenced order has been pressure treated with CREOSOTE PER AWPA SPECIFICATION P-1

to a net retention of 12 pounds of preservative per cubic foot by the FULL CELL process, in accordance with AWPA SPEC. C3-62 CLASS "B" PER ASTM SPECIFICATIONS.

Shipping Date	Car Number	Description	
5/26/72	J. R. HAYES & SONS	DOUGLAS FIR PILING	
s.n.44-250		1 Pc.	12/34'
		4 Pcs.	12/35'
		2 Pcs.	13/35'
		1 Pc.	13/36'
		8 Pcs.	

Signed D. R. Mansfield
D. R. MANSFIELD/jl
Plant Manager

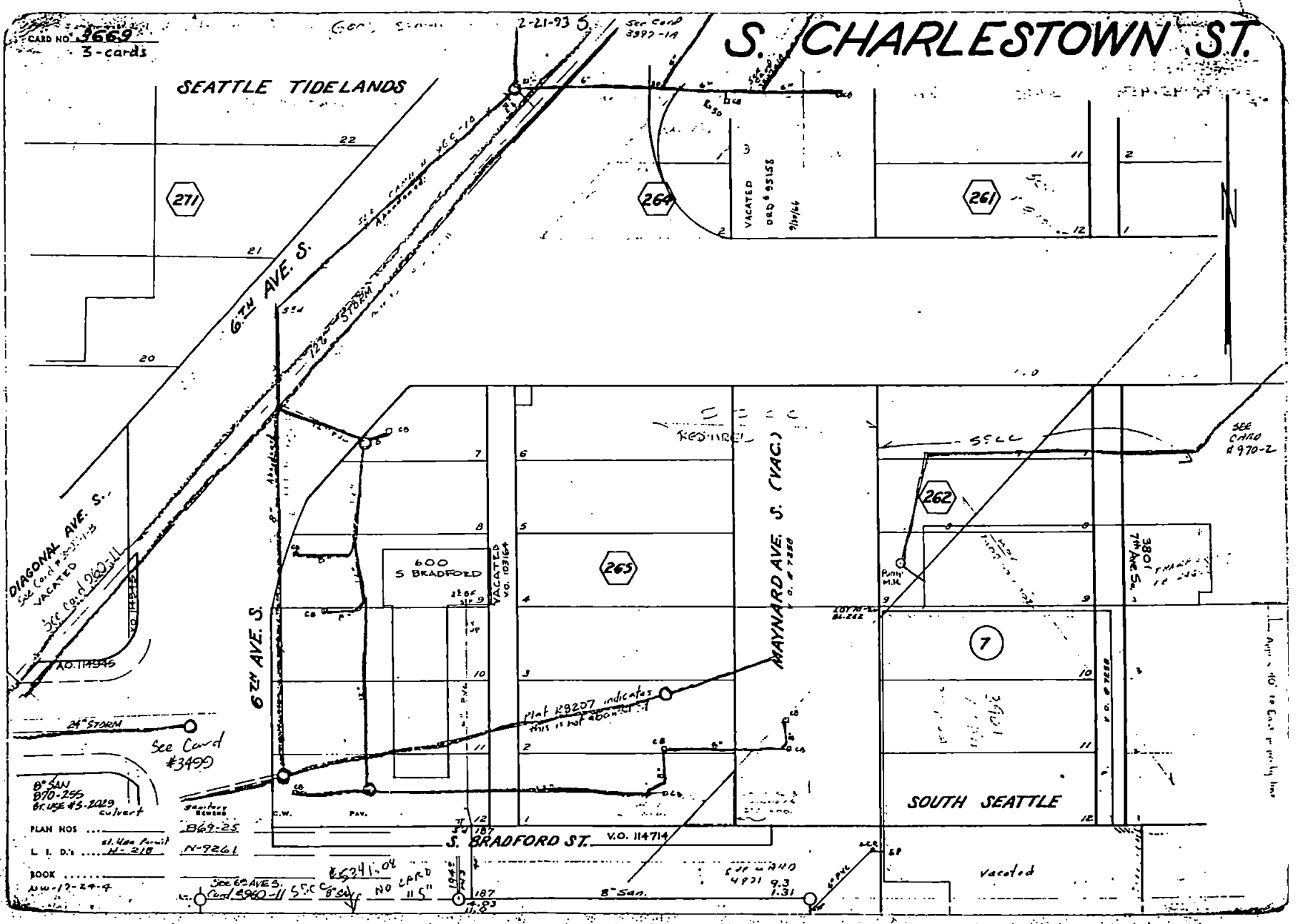
Subscribed and sworn to before me this 26 day of MAY, 1972

Notary Public in and for the State of WASHINGTON and County of KING

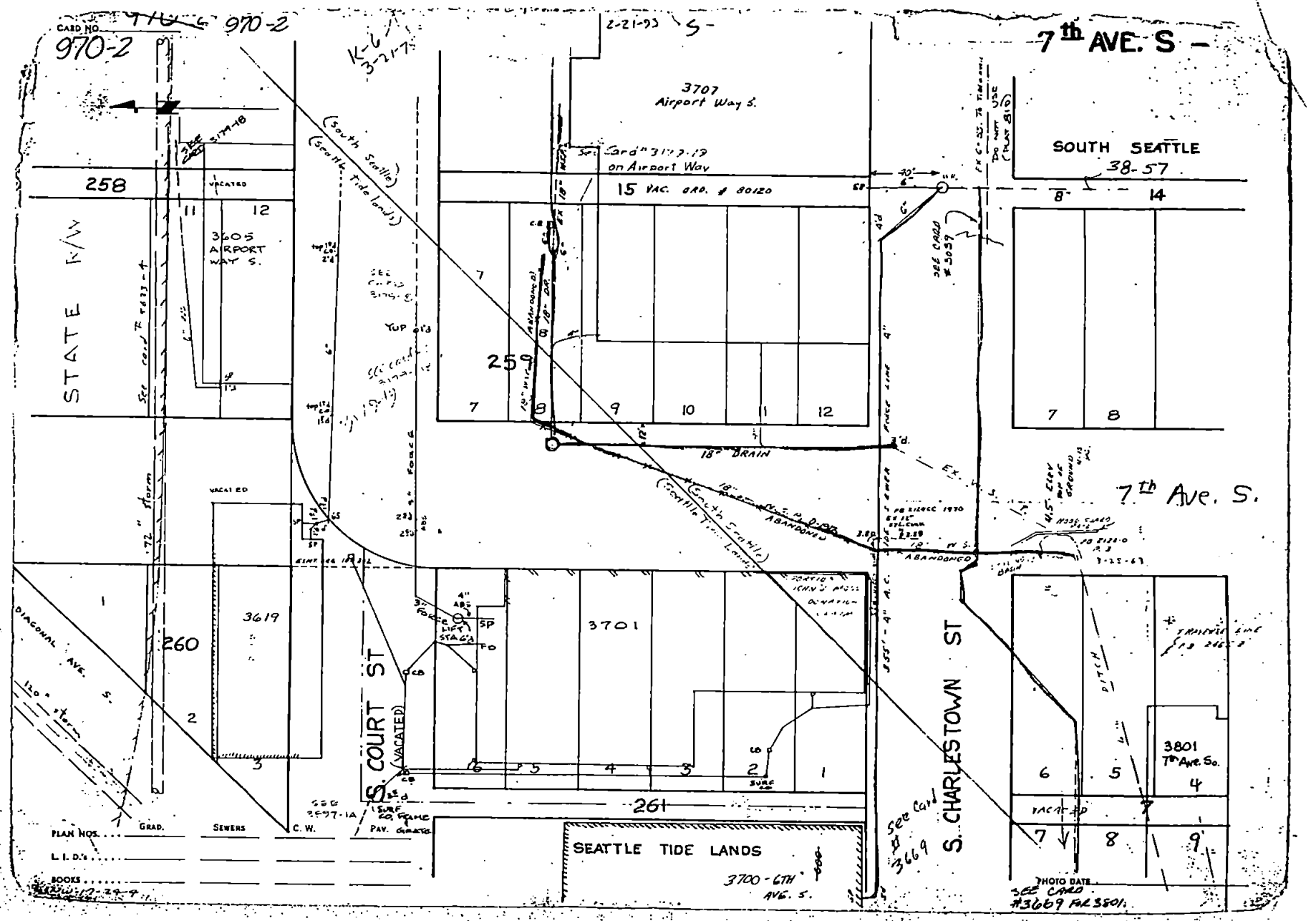
My Commission expires DECEMBER 4, 1974

JUDITH L. LEE

DCLU PILING SPECIFICATIONS



AREA STORM AND SANITARY SEWER PLANS



AREA STORM AND SANITARY SEWER PLANS

ATTACHMENT 2

Preliminary Subsurface Investigation
Equipoise Corporation

EQUIPOISE
CORPORATION

January 15, 1998

Mr. Jack A Jackson
3801 7th Avenue South
Seattle, WA 98108

RE: PRELIMINARY SUBSURFACE INVESTIGATION AT 3801-7TH AVENUE SOUTH, SEATTLE, WA (Equipoise Job No. 112-001-01)

Mr. Jackson:

Equipoise Corporation (Equipoise) is pleased to present this Preliminary Subsurface Investigation Report for the property located at 3801 7th Avenue South, Seattle, WA (the "site"; Figures 1, 2, and 3). This report summarizes the project activities conducted prior to Equipoise involvement, the results of Equipoise activities, and conclusions regarding the project. This completes the Equipoise scope of work authorized by you as outlined in our October 15, 1997 proposal.

BACKGROUND

Adapt Engineering, Inc. (Adapt) conducted a Phase I Site Assessment (Phase I) for the site in October 1997. The Phase I identified the four areas of environmental concern:

- A 10,000 gallon diesel underground storage tank (UST) was formerly located in the southwest portion of the site (Figure 4).In 1990 the diesel UST was removed and associated petroleum hydrocarbon impacts to soil were found on the north and east sidewalls of the excavation. Petroleum hydrocarbon impacted soil was excavated until laboratory analytical testing of sidewall soil samples indicated concentrations of total petroleum hydrocarbons (TPH) below current state cleanup levels. Soil from the bottom of the excavation was not analyzed for TPH.

- Three USTs ranging in capacity from approximately 500 to 1,000 gallons were formerly located north of the currently existing site building (Figure 4). The USTs were reported to have contained motor oil, used oil, and gasoline. The Phase I did not associate the contents and the volume of each UST: The three USTs were removed in 1990 and associated petroleum hydrocarbon impacts to soil were identified. A portion of the impacted soil was removed however impacted soil was left in place on the south and west walls of the excavation because it extended beneath the existing building. Laboratory analysis of soil samples taken from impacted soil left in place indicated TPH concentrations in excess of the current state cleanup levels.

- A truck wash pad is located on the western portion of the site. Three catch basins within the wash pad are reportedly plugged. Waste water that accumulates in the catch basins and on the pad is removed by vacuum truck and reportedly disposed of at an off-site facility.

- Four catch basins on the site reportedly discharge to an area near the southeast corner of the site. The exact location of the outfall was not identified in the Phase I report. The use of chlorinated solvents during vehicle maintenance and washing by current and former site tenants and the potential accumulation or release of said compounds by the catch basins

EQUIPOISE CORPORATION
12903 SE 45th Lane Suite 100
Bellevue, Washington 98006
Phone: 425.643.4402
Facsimile: 425.868.5590
Email: eqpoise@ix.netcom.com

and/or drainage system was identified as a potential environmental concern by the Phase I report.

The Phase I report recommended the following actions:

- Conduct an assessment of the diesel UST area to determine if the identified petroleum hydrocarbon release extended below the bottom of the UST excavation
- Conduct an assessment of the three UST area to determine if petroleum hydrocarbon impacts left in place have migrated. Additionally, conduct an assessment of the bottom of the UST excavation to determine if petroleum hydrocarbon impacts are present.
- Conduct an assessment of the truck wash pad area to determine if chlorinated solvent impacts are present.
- Conduct an assessment of the catch basin drainage system outfall area to determine if chlorinated solvent impacts are present.

EQUIPOISE INVESTIGATION AND RESULTS

Public and private utility locating services were at the site on October 17 and October 20, 1997. Potential boring locations were cleared of underground utilities. Equipoise and the drilling subcontractor, Holt Drilling, Inc., mobilized to the site on October 21, 1997. A site-specific Health and Safety Plan was reviewed and discussed with Equipoise and Holt Drilling, Inc. personnel prior to initiating site activities. The approximate location and boundaries of the diesel UST excavation and the three UST excavation were marked with spray paint by Tom Smith of Coastal Tank Cleaning, Inc. Mr. Smith was present at the time of both UST excavations and reported to have good recall as to said locations and boundaries. Equipoise personnel and Mr. Smith could not locate definitive evidence of the catch basin drainage system outfall (e.g. pipe, localized saturated soil). Based on their knowledge of the system Mr. Smith marked an approximate 10-foot by 10-foot area thought to be the location of the outfall.

Geoprobe Borings

A limited-access, track-mounted geoprobe rig was used to complete one boring each at the diesel UST area, the three UST area, the truck wash area, and the catch basin drainage system outfall area. Soil samples were collected at 2-foot intervals down to first encountered groundwater from each geoprobe location. The soil samples were screened for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID) equipped with 10.7 electron volt (eV) lamp. Unless otherwise indicated by the presence of stained soil or PID readings above background levels, soil samples were collected for laboratory analysis from the interface with first encountered groundwater.

In general, imported fill was encountered from 0 to 2-feet below ground surface (bgs) at each of the boring locations. Black to brownish black, poorly sorted, silty sand with greater than 20% by volume debris (e.g. wood, plastic, porcelain, glass) were encountered from 2 to 10-feet bgs. Gray to light gray, well sorted silty sand was encountered from 10 to 14-feet below ground surface. Groundwater was generally encountered at 14-feet bgs.

Strong organic odors were noted at each of the boring locations. However, no elevated readings were recorded with the PID at any sample depth or location.

A soil sample was collected from the diesel UST area geoprobe location GP-4 at 8-feet bgs and submitted for TPH analysis using Washington State Department of Ecology (Ecology) Method WTPH-HCID. The 8-feet bgs interval sample was chosen for laboratory analysis because it was highly stained and produced a petroleum like sheen when a sub-sample was placed in water. The 10-foot and 14-foot bgs interval samples lacked the staining and sheen production characteristics. A soil sample from the three UST area geoprobe location GP-3 was collected at the groundwater interface (14-feet bgs) and submitted for TPH analysis using WTPH-HCID.

One soil sample was collected from both the truck wash pad area and catch basin drainage system outfall area geoprobe locations, GP-3 and GP-1 respectively, at the groundwater interface (14-feet bgs) and submitted for chlorinated solvent analysis using U.S. Environmental Protection Agency (EPA) Method 8010.

Geoprobe Soil Sample Analytical Results

Laboratory analytical results for the soil sample taken at the diesel UST geoprobe location GP-4 were in excess of the screening concentration of 20 milligrams per kilogram (mg/kg), 50 mg/kg, and 100 mg/kg for gasoline range hydrocarbons, diesel range hydrocarbons, and oil and heavier range hydrocarbons, respectively.

Laboratory analytical results for the soil sample taken at the three UST geoprobe location GP-2 indicated non-detectable concentrations of gasoline range, diesel range, and oil and heavier range hydrocarbons.

Laboratory analytical results for the soil samples take at the truck wash pad area geoprobe location GP-3 and the catch basin drainage system outfall area GP- 1 indicated non-detectable concentrations of the 33 chlorinated solvent analytes. Detectable concentrations of chloromethane and methylene chloride were found. However, the reagent blank was also found to contain these two compounds and thus their presence is attributed to laboratory contamination according to the subcontractor laboratory, Laucks Testing Laboratories, Inc.. Analytical reports and chain-of-custody are provided in Appendix A.

Test Pit Excavations

Based on the positive screening results for petroleum hydrocarbons at the diesel UST geoprobe location GP-4, it was determined that further delineation of existing petroleum hydrocarbon impacts was required. Equipoise re-mobilized to the site on November 25, 1997 along with a Coastal Tank Cleaning, Inc. backhoe and equipment operator. Three test pits were excavated to a depth of approximately 10-feet bgs in the area of the former diesel UST excavation (Figure 4). One test pit, TP-1,was excavated directly over the location of geoprobe location GP-4 which yielded the positive petroleum hydrocarbon analytical screening results.

Excavated soil was examined for visual signs of impacts (e.g. staining, sheen). Representative soil samples were screened for VOCs using a PID equipped with a 10.7 eV lamp. No visually petroleum hydrocarbon impacted soil was encountered in any of the three test pits. Likewise, no elevated VOC readings were recorded from screening soil samples from the three test pits. Each of the test pits had imported fill material from 0 to 2-feet bgs. Black to brownish black, poorly sorted, silty sand with greater than 20% by volume landfill type materials (e.g. wood debris, plastic, china, glass) were encountered from 2 to 10-feet bgs. Two 1-quart automobile oil cans were retrieved from 6-feet bgs in test pit TP-1. Pictures of excavated soil and accompanying landfill debris are present in Appendix B.

Two sidewall soil samples were collected at 8-feet bgs and one floor soil sample was collected at 10-feet bgs from test pit TP-1 and submitted for analysis of gasoline range hydrocarbons by Ecology Method WTPH-G and diesel range and heavier range hydrocarbons by Ecology Method WTPH-D Extended. No soil samples were submitted for laboratory analysis from test pits TP-2 or TP-3.

Test Pit Soil Sample Analytical Results

Concentrations of gasoline range hydrocarbons were in excess of the Washington State Model Toxics Control Act (MTCA) cleanup level of 100 mg/kg in the floor and east sidewall samples collected from test pit TP-1. Concentrations of diesel range hydrocarbons were in excess of the MTCA cleanup level of 200 mg/kg for each of the three soil samples collected form test pit TP-1. Concentrations of oil and heavier range hydrocarbons were in excess of the MTCA cleanup level of 200 mg/kg for each of the three soil samples collected from test pit TP-1. Analytical results and their comparison to applicable state cleanup guidelines is presented in Table 1.Laboratory analytical reports note that in each instance hydrocarbons found in the diesel range did not match the typical chromatogram pattern for diesel.

CONCLUSIONS

The Phase I report by Adapt pointed out four areas of potential environmental concern. In three of the areas, the three UST area, the truck wash pad area, and the catch basin drainage system outfall are, soil sample analytical results indicate that analytes of interest were not detected above analytical method reporting limits. The fourth area, the diesel UST area, contained petroleum hydrocarbon impacts to soil in excess of MTCA cleanup guidelines.

Based on the work conducted to date it appears that petroleum hydrocarbon impacts to soil identified in this project are at least partially, if not wholly, due to sources other than the former diesel UST. The most likely source of petroleum hydrocarbons is the landfill identified in the Phase I report and confirmed by visual evidence (e.g. wood debris, glass, porcelain, etc.) during test pit excavations. The supporting evidence for this assumption is as follows:

- The presence of two 1-quart automobile oil cans in test pit TP-1 indicate that a variety of petroleum hydrocarbon containing materials were disposed of during the accumulation of landfill material.

- The diesel UST is well documented not to have contained gasoline during its operational lifetime. However, analytical results indicate the presence of gasoline range hydrocarbons in excess of MTCA cleanup guidelines.

- Laboratory analytical reports note that in each instance hydrocarbons found in the diesel range did not match the typical chromatogram pattern for diesel.

During a site visit to discuss the investigation results Mr. Ching-Pi Wang, Senior Environmental Engineer for Ecology, stated that it is Ecology's policy not to require individual property owners to define, delineate, or perform cleanup activities for sites impacted by landfill activities. The evidence to date suggests that the identified hydrocarbon impacts to soil are the result of past landfill activities. However, if definitive evidence is required to substantiate this assumption further work will be required.

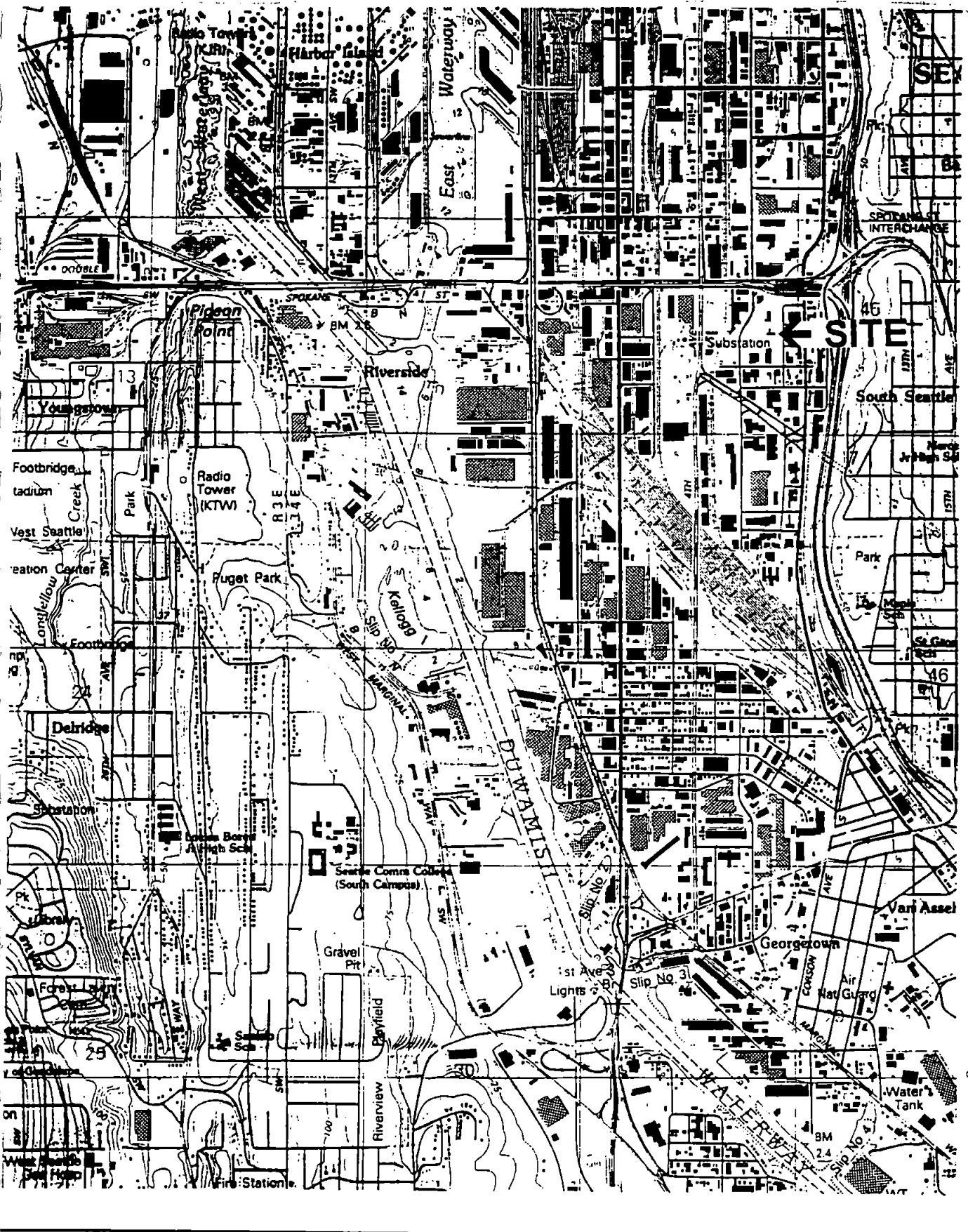
CLOSING

Equipoise appreciates the opportunity to provide you with environmental consulting services. If you have any questions or comments regarding this or any other matter, please do not hesitate to contact me us (425) 643-4402.
Sincerely,

Equipoise Corporation

Thomas M. Vaughn

Thomas M. Vaughn
Principal



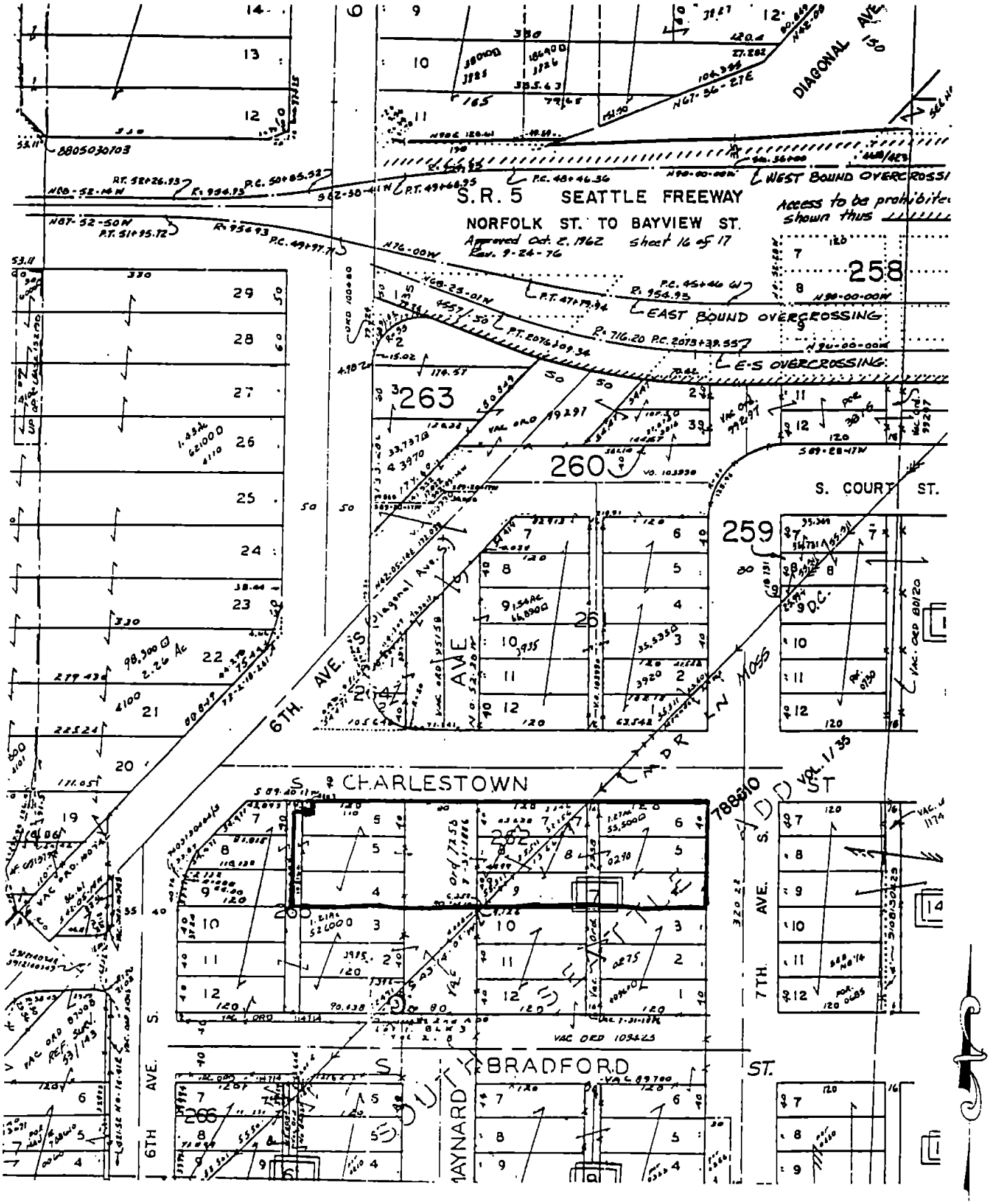
EQUIPOISE CORPORATION

12903 SE 45th Lane Suite 100
Bellevue, Washington 98006
Phone : 425.643.4402
Facsimile : 4253643.4402

FIGURE 1 - Location Map

Location : 3801 – 7th Avenue South
Seattle, Washington

Date : 01/13/98 Job # : 112-001-01



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Facsimile : 4253643.4402

FIGURE 2 - Parcel Map

Location : 3801 – 7th Avenue South
Seattle, Washington

Date : 01/13/98 Job # : 12-001-01

SOUTH CHARLESTOWN STREET

SANITARY SEWER
(AS PER CITY PLANS)

APPROXIMATE LOCATION OF FORMER GASOLINE, MOTOR OIL AND USED OIL UST EXCAVATION

GP-3

GP-1

GP-2

2

TP-1
GP-4

TP-3

TP-2

STORAGE CONTAINER

STORAGE CONTAINER

OFFICE

WAREHOUSE

SHOP

APPROXIMATE LOCATION OF FORMER DIESEL UST EXCAVATION

LEGEND

- CATCH BASIN
- FENCE
- GP-1 – GEOPROBE LOCATION
- TP-1 – TEST PIT LOCATION
- TP-1 & GP-4 – GEOPROBE AND TEST PIT LOCATION

NOT TO SCALE

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Bellevue, Washington 98006
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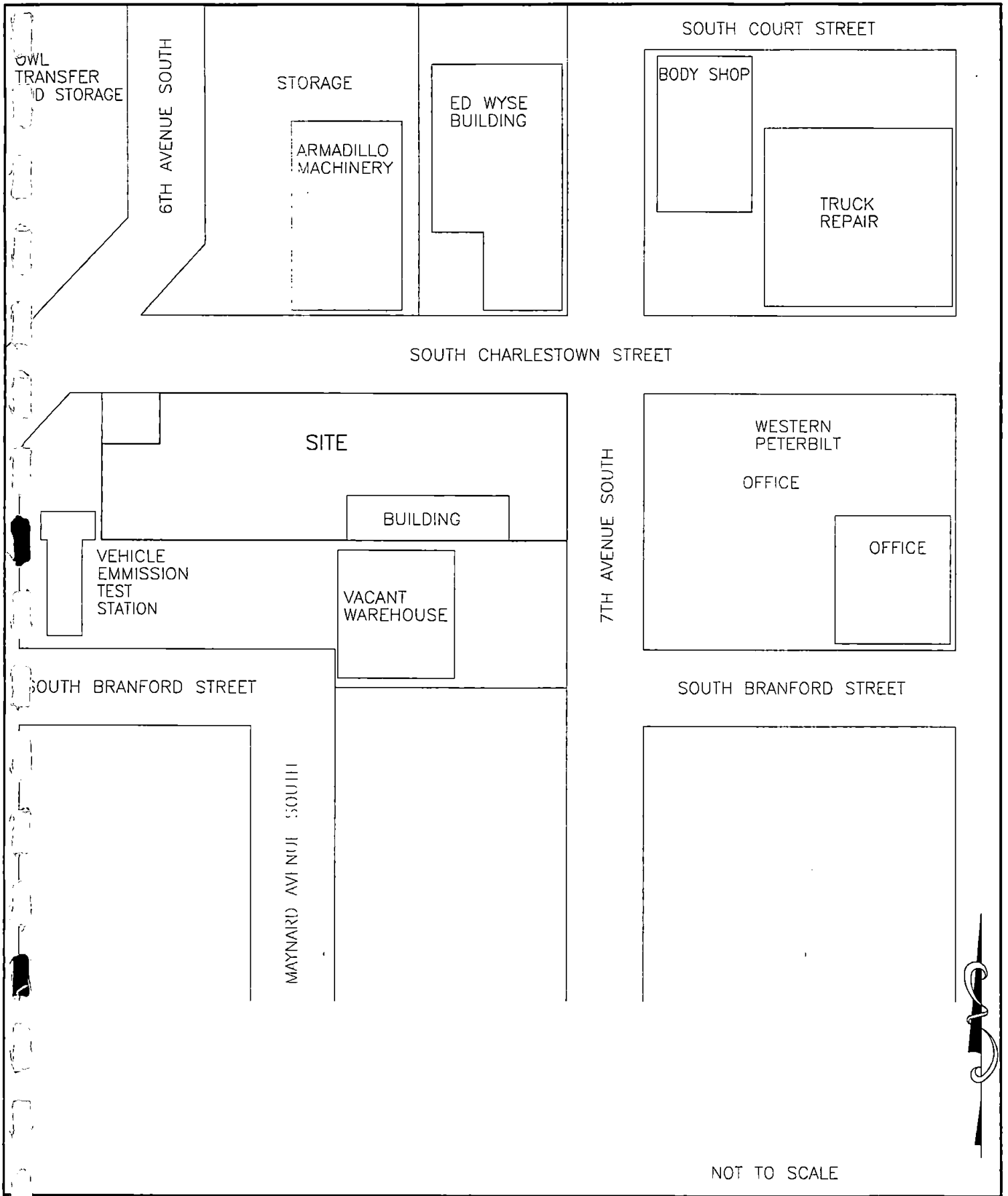
Facsimile : 4253643.4402

FIGURE 4 - Site Plan

Location : 3801 – 7th Avenue South
Seattle, Washington

Date : 01/13/98 **Job # :** 112-001-01



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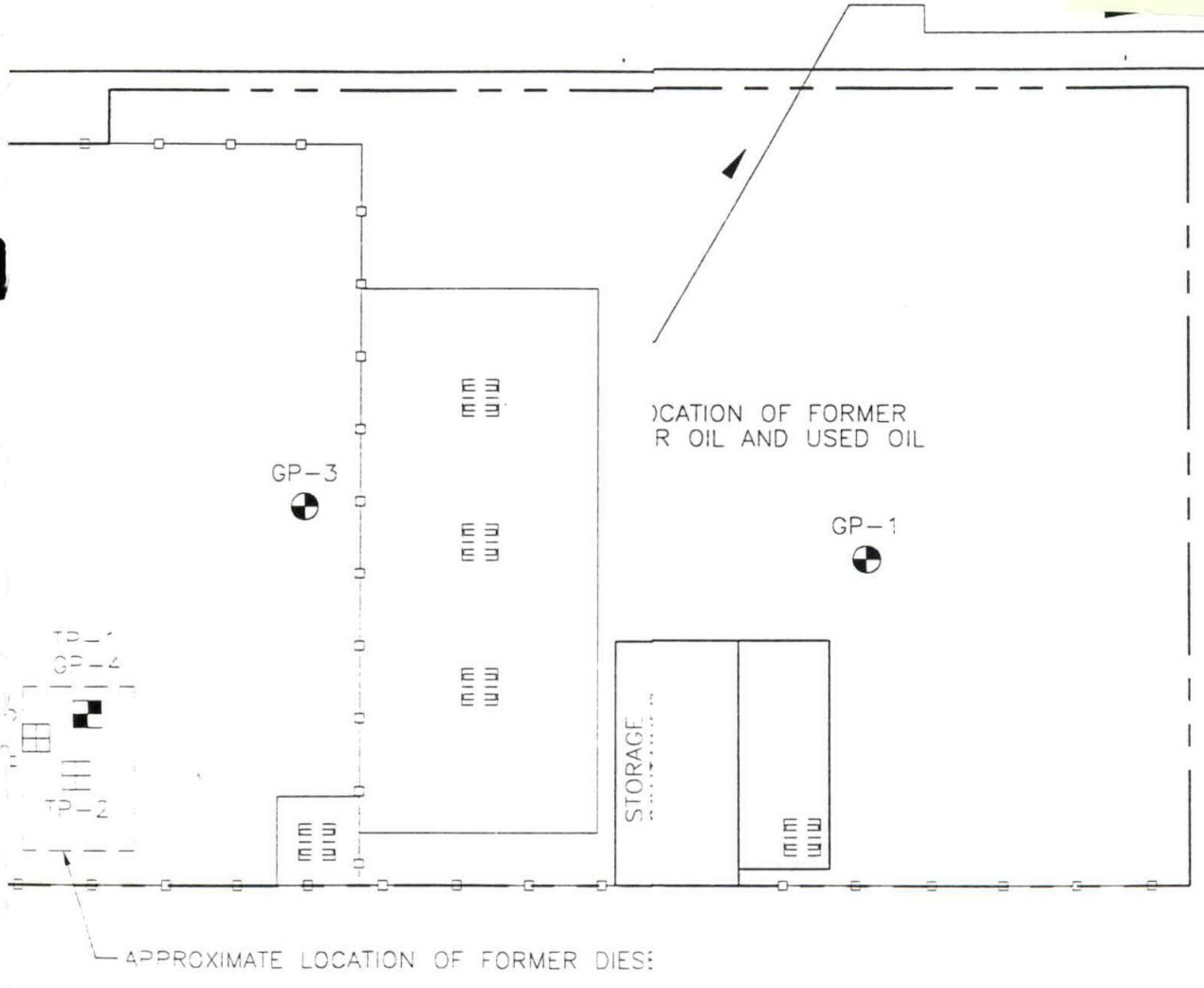
Facsimile : 4253643.4402

FIGURE 3 - Vicinity Map

Location : 3801 – 7th Avenue South
Seattle, Washington

Date : 01/13/98 **Job # :** 112-001-01

need read Map



APPROXIMATE LOCATION OF FORMER DIES

LEGEND

- CATCH BASIN
- FENCE
- GP-1 – GEOPROBE LOCATION
- TP-1 – TEST PIT LOCATION
- TP-1 & GP-4 – GEOPROBE AND

NOT TO SCALE

FIGURE 4 - Site Plan

Location : 3801 – [illegible] Avenue South
Seattle, Washington

Date : 01/13/98 Job # : 112-001-01

APPENDIX A

LABORATORY ANALYTICAL REPORTS

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

CLIENT : Equipoise

Certificate of Analysis

Work Order # 97-10-691

TESTS PERFORMED AND RESULTS:

Analyte	Units	01	02	03	04
Total Solids	%	66.9	85.1	83.8	81.4

Laucks Since 1908
Testing Laboratories, Inc.
10 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9710691-01 Date Collected: 10/22/97
Client Sample ID: UST Cavity - 12' Date Received : 10/23/97

---------- WTPH-HCID ----------

Preparation Date: 10/27/97
Analysis Date : 11/04/97

	Result	
Gasoline Range Hydrocarbons..	<20	mg/kg AR
Diesel Range Hydrocarbons.....	<50	mg/kg AR
Lube Oil and Related Products.	<100	mg/kg AR

Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene	114	50	150
2-Fluorobiphenyl	104	50	150
p-Terphenyl	108	50	150

Analysis performed in accordance with Washington State Department of Ecology method WTPH-HCID.

Key: < = Result is less than WTPH-HCID screening level.
> = Result exceeded WTPH-HCID screening level.
AR = As received.

If result exceeds the screening level it is recommended that the appropriate quantitative analysis be performed.

Laucks Since 1908
Testing Laboratories, Inc.
340 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9710691-04 Date Collected: 10/22/97
Client Sample ID: Former UST - 8' Date Received : 10/23/97

---------- WTPH-HCID ----------

Preparation Date: 10/27/97
Analysis Date : 11/04/97

	Result	
Gasoline Range Hydrocarbons...	>20	mg/kg AR
Diesel Range Hydrocarbons.....	>50	mg/kg AR
Lube Oil and Related Products.	>100	mg/kg AR

Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene	130	50	150
2-Fluorobiphenyl	204*	50	150
p-Terphenyl	510*	50	150

Comments: This sample has a partial Diesel pattern. Surrogates are out of limits due to matrix interference.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-HCID.

Key: < = Result is less than WTPH-HCID screening level.
> = Result exceeded WTPH-HCID screening level.
AR = As received.

If result exceeds the screening level it is recommended that the appropriate quantitative analysis be performed.

Laucks Since 1908
Testing Laboratories, Inc.
10 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9710691-02A
Client Sample ID: NE Truck Wash - 4'

Collection Date : 10/22/97
Date Received : 10/23/97
Date Analyzed : 11/05/97
Date Confirmed : 11/05/97

Test Code : 8010_S
Test Method : SW 8010
Report Units : ug/kg DB

Analyte	Result (ug/kg)	SDL (ug/kg)	PQL (ug/kg)	Analyte	Result (ug/kg)	SDL (ug/kg)	PQL (ug/kg)
Dichlorodifluoromethane	94 EU	94	94	Bromodichloromethane	47 EU	47	47
Chloromethane	380 EP	47	47	cis-1,3-Dichloropropene	47 EU	47	47
Vinyl chloride	47 EU	47	47	trans-1,3-Dichloropropene ..	47 EU	47	47
Bromomethane	190 EU	190	190	1,1,2-Trichloroethane	47 EU	47	47
Chloroethane	47 EU	47	47	Tetrachloroethylene	47 EU	47	47
Trichlorofluoromethane	47 EU	47	47	Chlorodibromomethane	47 EU	47	47
1,1-Dichloroethene	47 EU	47	47	Chlorobenzene	47 EU	47	47
Methylene chloride.....	1600 BEP	710	710	1,1,1,2-Tetrachloroethane ..	47 EU	47	47
trans-1,2-Dichloroethene ...	47 EU	47	47	Bromoform	94 EU	94	94
1,1-Dichloroethane	47 EU	47	47	Bromobenzene	380 EU	380	380
cis-1,2-Dichloroethene	47 EU	47	47	1,1,2,2-Tetrachloroethane ..	47 EU	47	47
Chloroform	47 EU	47	47	1,2,3-Trichloropropane	47 EU	47	47
1,1,1-Trichloroethane	47 EU	47	47	1,3-Dichlorobenzene	94 EU	94	94
Carbon tetrachloride	47 EU	47	47	1,4-Dichlorobenzene	94 EU	94	94
1,2-Dichloroethane	47 EU	47	47	Benzyl chloride	190 EU	190	190
Trichloroethene	47 EU	47	47	1,2-Dichlorobenzene	94 EU	94	94
1,2-Dichloropropane	47 EU	47	47				
Dibromomethane	190 EU	190	190				

Surrogate recovery report for sample 9710691-02A

Surrogate	Percent Recovery	Limits: Min.	Max.
Bromochloromethane	96	49	160
4-Bromofluorobenzene	100	48	120
1,2,3-Trichlorobenzene	83	20	146

* = Indicates that recovery is outside control limits

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Testing Laboratories, Inc.
340 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9710691-03A
Client Sample ID: Wash Pad - 15'

Collection Date : 10/22/97
Date Received : 10/23/97
Date Analyzed : 11/05/97
Date Confirmed : 11/05/97

Test Code : 8010_S
Test Method : SW 8010
Report Units : ug/kg DB

Analyte	Result (ug/kg)		SDL (ug/kg)	PQL (ug/kg)	Analyte	Result (ug/kg)		SDL (ug/kg)	PQL (ug/kg)
Dichlorodifluoromethane	95	EU	95	95	Bromodichloromethane	48	EU	48	48
loromethane	370	EP	48	48	cis-1,3-Dichloropropene	48	EU	48	48
yl chloride	48	EU	48	48	trans-1,3-Dichloropropene ..	48	EU	48	48
Bromomethane	190	EU	190	190	1,1,2-Trichloroethane	48	EU	48	48
loroethane	48	EU	48	48	Tetrachloroethylene	48	EU	48	48
ichlorofluoromethane	48	EU	48	48	Chlorodibromomethane	48	EU	48	48
1,1-Dichloroethene	48	EU	48	48	Chlorobenzene	48	EU	48	48
thylene chloride.....	1500	BEP	710	710	1,1,1,2-Tetrachloroethane ..	48	EU	48	48
ans-1,2-Dichloroethene ...	48	EU	48	48	Bromoform	95	EU	95	95
1-Dichloroethane	48	EU	48	48	Bromobenzene	380	EU	380	380
cis-1,2-Dichloroethene	48	EU	48	48	1,1,2,2-Tetrachloroethane ..	48	EU	48	48
oroform	48	EU	48	48	1,2,3-Trichloropropane	48	EU	48	48
,1-Trichloroethane	48	EU	48	48	1,3-Dichlorobenzene	95	EU	95	95
Carbon tetrachloride	48	EU	48	48	1,4-Dichlorobenzene	95	EU	95	95
2-Dichloroethane	48	EU	48	48	Benzyl chloride	190	EU	190	190
ichloroethene	48	EU	48	48	1,2-Dichlorobenzene	95	EU	95	95
1,2-Dichloropropane	48	EU	48	48					
Dibromomethane	190	EU	190	190					

Surrogate recovery report for sample 9710691-03A

Surrogate	Percent Recovery	Limits: Min.	Max.
Bromochloromethane	99	49	160
4-Bromofluorobenzene	103	48	120
1,2,3-Trichlorobenzene	82	20	146

* = Indicates that recovery is outside control limits

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Appendix A

Method Blank and Surrogate Recovery Report

Laucks Since 1908
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940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Method Blanks for Work Order 9710691

Name	Samples Verified	Test Description	Result	Units	Control Limit
[redacted]_GSV_S01	1,4	Gasoline Range Hydrocarbons	20 U	mg/kg	20
		Diesel Range Hydrocarbons	50 U		50
		Heavy Hydrocarbons	100 U		100
[redacted]_GVO_S01	2-3	Dichlorodifluoromethane	80 U	ug/kg	80
		Chloromethane	40 U		40
		Vinyl chloride	40 U		40
		Bromomethane	160 U		160
		Chloroethane	40 U		40
		Trichlorofluoromethane	40 U		40
		1,1-Dichloroethene	40 U		40
		Methylene chloride	1200		3000
		trans-1,2-Dichloroethene	40 U		40
		1,1-Dichloroethane	40 U		40
		cis-1,2-Dichloroethene	40 U		40
		Chloroform	40 U		40
		1,1,1-Trichloroethane	40 U		40
		Carbon tetrachloride	40 U		40
		1,2-Dichloroethane	40 U		40
		Trichloroethene	40 U		40
		1,2-Dichloropropane	40 U		40
		Dibromomethane	160 U		160
		Bromodichloromethane	40 U		40
		cis-1,3-Dichloropropene	40 U		40
		trans-1,3-Dichloropropene	40 U		40
		1,1,2-Trichloroethane	40 U		40
		Tetrachloroethylene	40 U		40
		Chlorodibromomethane	40 U		40
		Chlorobenzene	40 U		40
		1,1,1,2-Tetrachloroethane	40 U		40
		Bromoform	80 U		80

ethod blank can validate more than one analyte on more than one work order. The method blanks in this report may idate analytes not determined on this work order, but nonetheless determined in the associated blank.

e they validate more than one work order, method blank results are not always reported in the same concentration ts or to the same detection limits that are used for sample results.

lank exceeds control limit

Laucks Since 1908
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Chemistry, Microbiology, and Technical Services

Quality Control Report
Method Blanks for Work Order 9710691

Blank Name	Samples Verified	Test Description	Result	Units	Control Limit
		Bromobenzene	320 U		320
		1,1,2,2-Tetrachloroethane	40 U		40
		1,2,3-Trichloropropane	40 U		40
		1,3-Dichlorobenzene	80 U		80
		1,4-Dichlorobenzene	80 U		80
		Benzyl chloride	160 U		160
		1,2-Dichlorobenzene	80 U		80

ethod blank can validate more than one analyte on more than one work order. The method blanks in this report may validate analytes not determined on this work order, but nonetheless determined in the associated blank.

ause they validate more than one work order, method blank results are not always reported in the same concentration units or to the same detection limits that are used for sample results.

= blank exceeds control limit

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Multi-Component Method Blanks
Surrogate Recoveries for Work Order 9710691

Blank Name	Test Description	Surrogate Compound	Recov	LCL	UCL
B102797_GSV_S01	WTPH HCID in soil	Bromofluorobenzene	106	50	150
		2-Fluorobiphenyl	96	50	150
		p-Terphenyl	99	50	150
B110597_GVO_S01	Purgeable halocarbons in soil	Bromochloromethane	93	49	160
		4-Bromofluorobenzene	94	48	120
		1,2,3-Trichlorobenzene	86	20	146

* = Recovery exceeds control limit

Recov = Percent recovery of surrogate compound
LCL = Lower Control Limit
UCL = Upper Control Limit

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Appendix B

MS/MSD and Duplicate Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

Quality Control Report
MS/MSD Report for Work Order 9710691

MS/MSD Name	Sample Fractions Verified	MS/MSD Sample	Analyte	Percent Recovery MS	MSD	RPD	Cont. Limits LCL	UCL	RPD
K110597_GVOS01	2-3	9710691-03	Dichlorodifluoromethane	51*	50 *	2	70	130	50
			Chloromethane	90	90	0	70	130	50
			Vinyl Chloride	82	82	0	70	130	50
			Bromomethane	96	97	1	70	130	50
			Chloroethane	90	90	0	70	130	50
			Trichlorofluoromethane	103	104	1	70	130	50
			1,1-Dichloroethene	99	98	1	70	130	50
			Methylene Chloride	88	89	1	70	130	50
			trans-1,2-Dichloroethene	90	90	0	70	130	50
			1,1-Dichloroethane	104	102	2	70	130	50
			Chloroform	90	91	1	70	130	50
			1,1,1-Trichloroethane	87	86	1	70	130	50
			Carbon Tetrachloride	104	104	0	70	130	50
			1,2-Dichloroethane	94	94	0	70	130	50
			Trichloroethene	91	91	0	70	130	50
			1,2-Dichloropropane	93	94	1	70	130	50
			Dibromomethane	99	101	2	70	130	50
			Bromodichloromethane	102	102	0	70	130	50
			trans-1,3-Dichloropropene	110	110	0	70	130	50
			cis-1,3-Dichloropropene	101	103	2	70	130	50
			1,1,2-Trichloroethane	98	98	0	70	130	50
			Tetrachloroethene	86	86	0	70	130	50
			Chlorodibromomethane	96	102	6	70	130	50
			Chlorobenzene	100	102	2	70	130	50

* = Value Exceeds Control Limit
RPD = Relative Percent Difference
LCL = Lower Control Limit
UCL = Upper Control Limit
-1 for recovery value indicates that recovery could not be calculated

An MS/MSD pair can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this MS/MSD report.

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Testing Laboratories, Inc.
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Chemistry, Microbiology, and Technical Services

Quality Control Report
MS/MSD Report for Work Order 9710691

MS/MSD Name	Sample Fractions Verified	MS/MSD Sample	Analyte	Percent Recovery MS	MSD	RPD	Cont. Limits LCL	UCL	RPD
			1,1,1,2-Tetrachloroethane	94	96	2	70	130	50
			Bromoform	101	101	0	70	130	50
			Bromobenzene	88	88	0	70	130	50
			1,1,2,2-Tetrachloroethane	102	102	0	70	130	50
			1,3-Dichlorobenzene	96	100	4	70	130	50
			1,4-Dichlorobenzene	96	98	2	70	130	50
			1,2-Dichlorobenzene	92	94	2	70	130	50
			cis-1,2-Dichloroethene	88	90	2	70	130	50
			1,2,3-Trichloropropane	97	98	1	70	150	50

* = Value Exceeds Control Limit
RPD = Relative Percent Difference
LCL = Lower Control Limit
UCL = Upper Control Limit
-1 for recovery value indicates that recovery could not be calculated

An MS/MSD pair can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this MS/MSD report.

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Quality Control Report
Duplicate Report for Work Order 9710691

Duplicate Name	Sample Fractions Verified	Sample	Analyte	RPD	Limit
D110497_TSS01	2-3	9711003-01	Total Solids	0.30	30

* = Value Exceeds Control Limit
RPD = Relative Percent Difference
L = RPD control limit for this analyte is 5x the detection limit. The value appearing in the RPD column is the absolute difference of the duplicates.
-1 for recovery value indicates that recovery could not be calculated

A duplicate pair can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this duplicate report.

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Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Method Blanks for Work Order 9711668

Blank Name	Samples Verified	Test Description	Result	Units	Control Limit
120197_GSV_S01	1-3	Diesel range, as diesel	25 U	mg/kg	25
		Oil range, as oil	100 U		100
B120197_GSV_S02	1X,2X,3X	Diesel range, as diesel	25 U	mg/kg	25
		Oil range, as oil	100 U		100
120197_GVO_S01	1-3	Gasoline range, as gasoline	5.0 U	mg/kg	5.0

method blank can validate more than one analyte on more than one work order. The method blanks in this report may validate analytes not determined on this work order, but nonetheless determined in the associated blank.

Because they validate more than one work order, method blank results are not always reported in the same concentration units or to the same detection limits that are used for sample results.

* = blank exceeds control limit

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Multi-Component Method Blanks
Surrogate Recoveries for Work Order 9711668

Blank Name	Test Description	Surrogate Compound	Recov	LCL	UCL
B120197_GSV_S01	WA TPH Diesel Extended	2-Fluorobiphenyl	98	50	150
		p-Terphenyl	106	50	150
B120197_GSV_S02	WA TPH Diesel Extended	2-Fluorobiphenyl	79	50	150
		p-Terphenyl	94	50	150
B120197_GVO_S01	WTPH gas in soil (no BETX distinction)	Trifluorotoluene	81	50	150
		Bromofluorobenzene	90	50	150

* = Recovery exceeds control limit

Recov = Percent recovery of surrogate compound
LCL = Lower Control Limit
UCL = Upper Control Limit

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Appendix B

Blank Spike Recovery Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Blank Spike Report for Work Order 9711668

Blank Spike Names

Database	Lab Assigned	Fractions Verified	Analyte Name	Recov	LCL	UCL
S120197_GSVS01	S120197GSVSL	1-3	Diesel, as diesel	116	20	160
S120197_GSVS02	S120197GSVSL	1X,2X,3X	Diesel, as diesel	92	20	160
S120197_GVOS01	S120197GVO.S	1-3	Gasoline	78	20	160

* = Value Exceeds Control Limit
LCL = Lower Control Limit
UCL = Upper Control Limit

A blank spike can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this blank spike report.

Laucks Since 1908
Testing Laboratories, Inc.
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Chemistry, Microbiology, and Technical Services

Appendix C

Chain-of-Custody

CHAIN OF CUSTODY RECORD

SDG # 04152

WORK ORDER ID# 9711668

PAGE 1 OF 1

Laucks Testing Laboratories, Inc.

SUBMITTED AT: [X] 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
[ ] 1806 Terrace Ave., Yakima, WA 98902 (509) 248-1600 FAX 248-1260

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Equipoise
ADDRESS: 12903 SE 45th Lane
Bellevue, WA 98006
ATTENTION: Tom Vaughn
PROJECT NAME: Eagle Harbor
PROJECT CONTACT: Tom Vaugh
TELEPHONE: 425 643 4402 FAX: 425 868-5590
JOB/P.O. NO.: 112-001-01

TESTS TO PERFORM

LAB SA#	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	WTPit - G	WTPit - Diesel Extended	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
1)	Floor	11/25	1315	Soil	01	X	X	
2)	East Sidewall	11/25	1317	Soil	01	X	X	
3)	West Sidewall	11/25	1320	Soil	01	X	X	

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

***BILLING INFORMATION, IF DIFFERENT THAN ABOVE**

NAME ADDRESS
ATTN: CITY, STATE, ZIP

* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

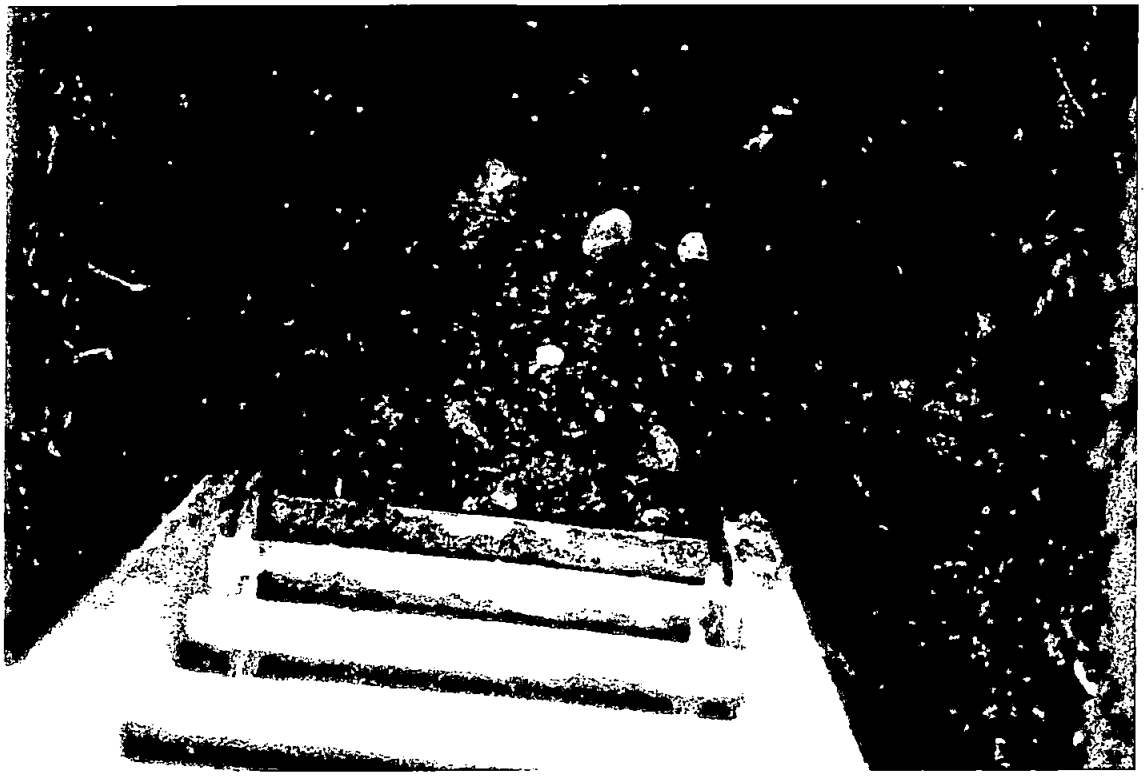
TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
[ ] STD. 10-14 WORKING DAYS
*[ ] 24-48 HRS. (100% SUR)
*[ ] 72 HRS. (75% SUR)
*[X] 5 DAYS (50% SUR) 12/5
[ ] OTHER:
[ ] TE

RELINQUISHED BY (SIGN AND PRINT)	DATE / TIME	RECEIVED BY (SIGN AND PRINT)	DATE / TIME
Tom Vaughn	11-26-97	Charlene Hutchinson	11/26/97 0920

APPENDIX B

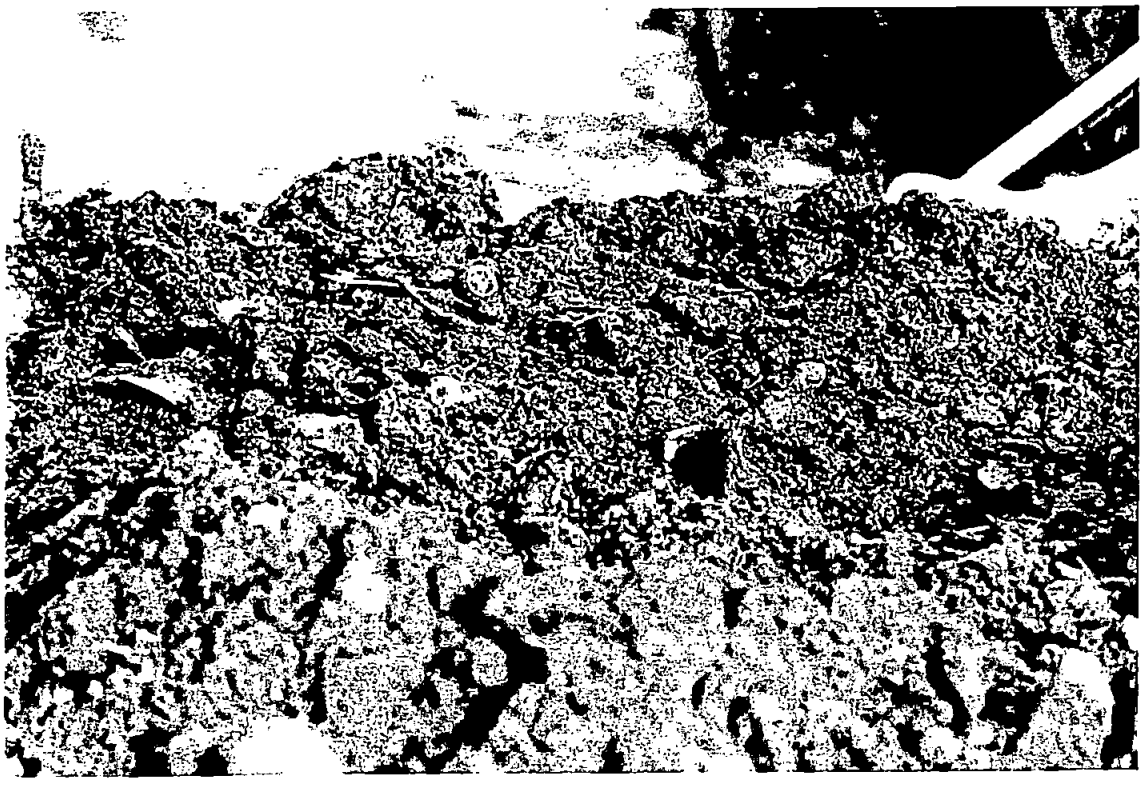
PHOTOGRAPHS



Photograph 1 - Floor of test pit TP-1 at 8-feet bgs

Photograph 2 - Floor of test pit TP-1 at 10-feet bgs

Photograph 1 - Excavated soil from test pit TP-1



Photograph 2 - Excavated soil from test pit TP-1

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Chemistry, Microbiology, and Technical Services

Appendix C

Blank Spike Recovery Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

Quality Control Report
Blank Spike Report for Work Order 9710691

Blank Spike Names Database	Lab Assigned	Fractions Verified	Analyte Name	Recov	LCL	UCL
S110597_GVOS01	S110597GVOEN	2-3	1,1,1,2-Tetrachloroethane	98	78	119
			1,1,1-Trichloroethane	87	79	115
			1,1,2,2-Tetrachloroethane	102	73	124
			1,1,2-Trichloroethane	96	78	118
			1,1-Dichloroethane	99	64	132
			1,1-Dichloroethene	100	66	129
			1,2,3-Trichloropropane	98	71	127
			1,2-Dichlorobenzene	95	76	118
			1,2-Dichloroethane	92	78	119
			1,2-Dichloropropane	94	79	117
			1,3-Dichlorobenzene	100	77	117
			1,4-Dichlorobenzene	98	74	116
			Bromobenzene	89	72	120
			Bromodichloromethane	102	78	126
			Bromoform	107	76	128
			Bromomethane	100	72	137
			Carbon Tetrachloride	102	79	116
			Chlorobenzene	102	71	124
			Chlorodibromomethane	98	80	124
			Chloroethane	92	71	120
			Chloroform	89	79	114
			Chloromethane	97	48	129
			Dibromomethane	100	75	126
			Dichlorodifluoromethane	52	20	180
			Methylene Chloride	117	44	143
			Tetrachloroethene	86	75	117
			Trichloroethene	90	69	125
			Trichlorofluoromethane	104	73	117
			Vinyl Chloride	84	67	121
			cis-1,2-Dichloroethene	90	61	131
			cis-1,3-Dichloropropene	99	75	122
			trans-1,2-Dichloroethene	86	73	121

* = Value Exceeds Control Limit
LCL = Lower Control Limit
UCL = Upper Control Limit

A blank spike can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this blank spike report.

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Blank Spike Report for Work Order 9710691

Blank Spike Names						
Database	Lab Assigned	Fractions Verified	Analyte Name	Recov	LCL	UCL
			trans-1,3-Dichloropropene	107	66	126

* = Value Exceeds Control Limit
LCL = Lower Control Limit
UCL = Upper Control Limit

A blank spike can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this blank spike report.

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix D

Chain-of-Custody

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING* (SEE BELOW)

COMPANY: Equipoise
ADDRESS: 12903 SE 45th Lane
Bellevue, WA 98006
ATTENTION: Tom Vaughn
PROJECT NAME: Coastal Tanks
PROJECT CONTACT: Tom Vaughn
TELEPHONE: 643-4402 FAX: 868-5590
JOB/P.O. NO.: 115-001-01

CHAIN OF CUSTODY RECORD

SDG # 07916

PAGE _ OF _

WORK ORDER ID# 9710691

SUBMITTED AT:

Laucks Testing Laboratories, Inc.

[ ] 940 South Harney St., Seattle WA 98108 (206) 767-5060 FAX 767-5063
[ ] 1806 Levee Rd., Kelso WA 98626 (360) 577-7222 FAX 577-7430

TESTS TO PERFORM

LAB SA#	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	WTPH-HCID	EPA 8010	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
1	UST Cavity -12'	10-22		Soil	1	X		
2	NE Truck Wash -4'	↓		Soil	1		X	
3	Wash Pad -15'	↓		Soil	1		X	
4	Former UST - 8'	10-22		Soil	1	X		

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

***BILLING INFORMATION, IF DIFFERENT THAN ABOVE**

NAME ADDRESS

ATTN: CITY, STATE, ZIP

★ RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

4 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST

- [X] STD. 10-14 WORKING DAYS
- ★[ ] 24-48 HRS (100% SUR)
- ★[ ] 72 HRS (75% SUR)
- ★[ ] 5 DAYS (50% SUR)
- [ ] OTHER
- [ ] TEMP

RELINQUISHED BY (SIGN AND PRINT)	DATE / TIME	RECEIVED BY (SIGN AND PRINT)	DATE / TIME
Tom Vaughn	10-23-97 1405		10-23-97 1405

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Certificate of Analysis

CLIENT: Equipoise
12903 SE 45th Lane
Bellevue, WA 98006

ATTN : Tom Vaughn

Work Order# : 97-11-668
DATE RECEIVED : 11/26/97
DATE OF REPORT: 12/10/97
CLIENT JOB ID : 112-001-01

Work ID : Eagle Harbor
Taken By : Client
Transported by: Hand Delivered
Type : Soil

SAMPLE IDENTIFICATION:

	Sample Description	Collection Date
01	Floor	11/25/97 13:15
02	East Sidewall	11/25/97 13:17
03	West Sidewall	11/25/97 13:20

FLAGGING:

The flag "U" indicates the analyte of interest was not detected, to the limit of detection indicated.

The flag "D" indicates the value reported derives from analysis of a diluted sample or sample extract.

ATTACHMENTS:

Following presentation of sample results, the following appendices are attached to this report:

Appendix A: Method Blank and Surrogate Recovery
Appendix B: Blank Spike Recovery Report
Appendix C: Chain-of-Custody

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CLIENT : Equipoise

Certificate of Analysis

Work Order# : 97-11-668

Unless otherwise instructed all samples will be discarded on 01/19/98 with the exception of samples which are consumed during the analysis, such as microbiological samples.

Respectfully submitted,
Laucks Testing Laboratories, Inc.

J. M. Owens

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Chemistry, Microbiology, and Technical Services

CLIENT : Equipoise

Certificate of Analysis

Work Order # 97-11-668

TESTS PERFORMED AND RESULTS:

Analyte	Units	01	02	03
Total Solids	%	54.0	83.7	77.1

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Lab Sample ID : 9711668-01
Client Sample ID: Floor

Date Collected: 11/25/97
Date Received : 11/26/97

---------- WTPH-G ----------

Preparation Date: 12/01/97
Analysis Date : 12/03/97

GC Method: Purge and trap GC

	Result	SDL	
Gasoline Range.....	570	46	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
Trifluorotoluene	86	50	150
Bromofluorobenzene	242*	50	150

Comments: The hydrocarbon pattern matches gasoline.
Bromofluorobenzene recovery exceeded the control limits due to matrix interference.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-G.

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Lab Sample ID : 9711668-02 Date Collected: 11/25/97
Client Sample ID: East Sidewall Date Received : 11/26/97

---------- WTPH-G ----------

Preparation Date: 12/01/97
Analysis Date : 12/02/97

GC Method: Purge and trap GC

	Result	SDL	
Gasoline Range.....	150	12	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
Trifluorotoluene	90	50	150
Bromofluorobenzene	166*	50	150

Comments: The hydrocarbon pattern partially matches gasoline. Bromofluorobenzene recovery exceeded the control limits due to matrix interference.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-G.

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Lab Sample ID : 9711668-03 Date Collected: 11/25/97
Client Sample ID: West Sidewall Date Received : 11/26/97

---------- WTPH-G ----------

Preparation Date: 12/01/97
Analysis Date : 12/02/97

GC Method: Purge and trap GC

	Result	SDL	
Gasoline Range.....	98	6.5	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
Trifluorotoluene	83	50	150
Bromofluorobenzene	124	50	150

Comments: The hydrocarbon pattern partially matches gasoline.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-G.

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REPORT ON SAMPLE: 9711668-01C
Client Sample ID: Floor

Collection Date	: 11/25/97	Test Code	: TPHDXS
Date Received	: 11/26/97	Test Method	: 8015 (Modified)
Date Extracted	: 12/01/97	Extraction Method	: SW 3550
Date Analyzed	: 12/08/97		

Analyte	Result (mg/kg DB)		PQL (mg/kg DB)
Diesel range, as diesel	1900	D	460
Oil range, as oil	4100	D	1900

Surrogate recovery report for sample 9711668-01C

Surrogate	Percent Recovery	Limits: Min.	Max.
2-Fluorobiphenyl	105	50	150
p-Terphenyl	105	50	150

* = Indicates that recovery is outside control limits

Comments: This sample has a partial Oil pattern and no Diesel pattern.

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REPORT ON SAMPLE: 9711668-02C
Client Sample ID: East Sidewall

Collection Date	: 11/25/97	Test Code	: TPHDXS
Date Received	: 11/26/97	Test Method	: 8015 (Modified)
Date Extracted	: 12/01/97	Extraction Method	: SW 3550
Date Analyzed	: 12/08/97		

Analyte	Result (mg/kg DB)	PQL (mg/kg DB)
Diesel range, as diesel	210	30
Oil range, as oil	680	120

Surrogate recovery report for sample 9711668-02C

Surrogate	Percent Recovery	Limits: Min.	Max.
2-Fluorobiphenyl	82	50	150
p-Terphenyl	104	50	150

* = Indicates that recovery is outside control limits

Comments: This sample has a partial Oil pattern and no Diesel pattern.

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REPORT ON SAMPLE: 9711668-03C
Client Sample ID: West Sidewall

Collection Date	: 11/25/97	Test Code	: TPHDXS
Date Received	: 11/26/97	Test Method	: 8015 (Modified)
Date Extracted	: 12/01/97	Extraction Method	: SW 3550
Date Analyzed	: 12/08/97		

Analyte	Result (mg/kg DB)	PQL (mg/kg DB)
Diesel range, as diesel	430	32
Oil range, as oil	650	130

Surrogate recovery report for sample 9711668-03C

Surrogate	Percent Recovery	Limits: Min.	Max.
2-Fluorobiphenyl	78	50	150
p-Terphenyl	144	50	150

* = Indicates that recovery is outside control limits

Comments: This sample has a partial Oil pattern and no Diesel pattern.

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Appendix A

Method Blank and Surrogate Recovery Report

ATTACHMENT 3

Laboratory Analytical Reports

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

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SPOKANE • (509) 924-9200 • FAX 924-9290
PORTLAND • (503) 906-9200 • FAX 906-9210

Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
Floor	B805280-00	Soil	5/8/98
East Sidewall	B805280-01	Soil	5/8/98
West Sidewall	B805280-02	Soil	5/8/98
North Sidewall	B805280-03	Soil	5/8/98
South Sidewall	B805280-04	Soil	5/8/98
Stockpile	B805280-05	Soil	5/8/98

North Creek Analytical, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Matthew Essig, Project Manager

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Gasoline Hydrocarbons (Toluene to Dodecane) by WTPH-G
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Floor				**B805280-00**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/13/98		5.00	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*106*	%	
East Sidewall				**B805280-01**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/13/98		5.00	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*104*	%	
West Sidewall				**B805280-02**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/13/98		5.00	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*103*	%	
North Sidewall				**B805280-03**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/13/98		5.00	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*105*	%	
South Sidewall				**B805280-04**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/14/98		5.00	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*99.1*	%	
Stockpile				**B805280-05**			**Soil**	
Gasoline Range Hydrocarbons	0580435	5/13/98	5/14/98		5.00	7.75	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*94.8*	%	

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*Refer to end of report for text of notes and definitions.

Matthew Essig, Project Manager

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Floor			B805280-00				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	13.1	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	48.4	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*87.2*	*%*	
East Sidewall			B805280-01				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	14.2	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	38.5	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*89.9*	*%*	
West Sidewall			B805280-02				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	18.1	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	60.8	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*93.4*	*%*	
North Sidewall			B805280-03				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	11.1	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	50.2	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*90.1*	*%*	
South Sidewall			B805280-04				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	11.4	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	46.2	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*91.8*	*%*	
Stockpile			B805280-05				Soil	
Diesel Range Hydrocarbons	0580459	5/14/98	5/15/98		10.0	406	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	675	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*96.7*	*%*	

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

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PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Laucks Testing Labs	Project: Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number: 9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager: Charlene Nix	Reported: 5/18/98

Total Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Stockpile			**B805280-05**				**Soil**	
Lead	0580476	4/15/98	5/15/98	EPA 6020	0.500	56.4	mg/kg dry	

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Gasoline Hydrocarbons (Toluene to Dodecane) by WTPH-G/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0580435	**Date Prepared: 5/13/98**					**Extraction Method: EPA 5030B (MeOH)**				
Blank	0580435-BLK1									
Gasoline Range Hydrocarbons	5/13/98			ND	mg/kg dry	5.00				
Surrogate: 4-BFB (FID)	"	*4.00*		*4.37*	"	*50.0-150*	*109*			
LCS	0580435-BS1									
Gasoline Range Hydrocarbons	5/13/98	25.0		27.2	mg/kg dry	70.0-130	109			
Surrogate: 4-BFB (FID)	"	*4.00*		*4.43*	"	*50.0-150*	*111*			
Duplicate	0580435-DUP1	B805280-02								
Gasoline Range Hydrocarbons	5/13/98		ND	ND	mg/kg dry			50.0		
Surrogate: 4-BFB (FID)	"	*5.71*		*5.43*	"	*50.0-150*	*95.1*			

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*Refer to end of report for text of notes and definitions.

Matthew Essig, Project Manager

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PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
Floor	B805280-00	Soil	71.8	%
East Sidewall	B805280-01	Soil	76.7	%
West Sidewall	B805280-02	Soil	70.1	%
North Sidewall	B805280-03	Soil	75.1	%
South Sidewall	B805280-04	Soil	72.9	%
Stockpile	B805280-05	Soil	71.4	%

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0580459	**Date Prepared: 5/14/98**					**Extraction Method: EPA 3550B**				
Blank	**0580459-BLK1**									
Diesel Range Hydrocarbons	5/14/98			ND	mg/kg dry	10.0				
Heavy Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	*10.7*		*8.83*	"	*50.0-150*	*82.5*			
LCS	**0580459-BS1**									
Diesel Range Hydrocarbons	5/14/98	66.7		55.7	mg/kg dry	60.0-140	83.5			
Surrogate: 2-FBP	"	*10.7*		*9.39*	"	*50.0-150*	*87.8*			
Duplicate	**0580459-DUP1**	**B805294-02**								
Diesel Range Hydrocarbons	5/14/98		ND	ND	mg/kg dry			50.0		
Surrogate: 2-FBP	"	*16.0*		*13.0*	"	*50.0-150*	*81.3*			
Duplicate	**0580459-DUP2**	**B805294-04**								
Diesel Range Hydrocarbons	5/14/98		ND	ND	mg/kg dry			50.0		
Surrogate: 2-FBP	"	*15.0*		*11.6*	"	*50.0-150*	*77.3*			

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*Refer to end of report for text of notes and definitions.

Matthew Essig, Project Manager

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Total Metals by EPA 6000/7000 Series Methods/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0580476	**Date Prepared: 4/15/98**					**Extraction Method: EPA 3050B**				
Blank	0580476-BLK1									
Lead	5/15/98			ND	mg/kg dry	0.500				
LCS	0580476-BS1									
Lead	5/15/98	75.1		77.5	mg/kg dry	80.0-120	103			
Duplicate	0580476-DUP1		B805287-00							
Lead	5/15/98		4.96	4.76	mg/kg dry			20.0	4.12	
Matrix Spike	0580476-MS1		B805287-00							
Lead	5/15/98	22.7	4.96	26.7	mg/kg dry	70.0-130	95.8			

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*Refer to end of report for text of notes and definitions.

Matthew Essig, Project Manager

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Laucks Testing Labs	Project:	Eagle Harbor Construction	Sampled: 5/8/98
940 South Harney St.	Project Number:	9805250	Received: 5/13/98
Seattle, WA 98108	Project Manager:	Charlene Nix	Reported: 5/18/98

Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager

CHAIN OF CUSTODY RECORD 09670 SDG # ______

Laucks Testing Laboratories, Inc.

PAGE 1 OF 1

WORK ORDER ID# 9805250

SUBMITTED AT: ☒ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063 ☐ 1105 Leduich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

COMPANY: Eagle Harbor Construction
ADDRESS: P.O. Box 10061
Bainbridge Isld, WA 98110
ATTENTION: Jack Jackson
PROJECT NAME:
PROJECT CONTACT: Tom Vaughn
TELEPHONE: 425 868 5590 FAX: 425 868 5590
JOB/P.O. NO.: 115-001-001

8805280

TESTS TO PERFORM

LAB SAMPLE	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	WTPH-G **	WTPH-d extended **	Lead		OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
1	Floor	5-8	0900	soil	1	X	X		8805280-00	* please call regarding turn
2	East Sidewall	↓	↓	soil	1	X	X		-01	
3	West Sidewall			soil	1	X	X		-02	
4	North Sidewall			soil	1	X	X		-03	
5	South Sidewall	↓	↓	soil	1	X	X		-04	
6	Stockpile	5-8	0900	soil	3	X	X	X	-05	← Hold this sample only for 24 hrs call 425 868-5590 to confirm analysis

Sample Receipt acknowledged pending verification of sample count. You will be notified within one working day of any discrepancies found.
Signed [signature] Date 5/11 Time 0805

** Log-in for 3 day TAT for all samples per client, 5/13, JPC

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS
1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

BILLING INFORMATION, IF DIFFERENT THAN ABOVE
NAME ADDRESS
ATTN: CITY, STATE, ZIP

*** RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
☐ STD. 10-14 WORKING DAYS
*☐ 24-48 HRS. (100% SUR)
*☒ 72 HRS. (75% SUR)
*☐ 5 DAYS (50% SUR)
☐ OTHER:
☐ TEMP:
CUSTODY SEAL: ☐Y ☐N ☐N/A

RELINQUISHED BY (SIGN AND PRINT)	DATE / TIME	RECEIVED BY (SIGN AND PRINT)	DATE / TIME
[signature] Thomas Vaughn	5-11-98 0805	[signature] PAM R. JOHNSON	5/11/98 0805
[signature] PAM R. JOHNSON	5/12/98 0850	[signature] Cathy Nichols	5-13-98 12:30

FINAL REPORT COPY w/o 19.9°

** TOTAL PAGE.11 **