

SCANNED

**DEVELOPMENT RESPONSE ACTION PLAN AND
CONSTRUCTION CONTINGENCY PLAN**

**SEWARD COMMONS BYSTROM REDEVELOPMENT
PHASE I-PPL
2310 SNELLING AVENUE
MINNEAPOLIS, MINNESOTA 55406**

Prepared for:

**SEWARD COMMONS, LLC
2619 EAST FRANKLIN AVENUE
MINNEAPOLIS, MN 55406**

March 2009

Prepared by:

Liesch Companies

Minneapolis • Chicago • Los Angeles • Madison • Milwaukee • Phoenix



DEVELOPMENT RESPONSE ACTION PLAN AND CONSTRUCTION
CONTINGENCY PLAN

SEWARD COMMONS BYSTROM REDEVELOPMENT
PHASE I-PPL
2310 SNELLING AVENUE, MINNEAPOLIS, MINNESOTA 55406

Prepared for:

SEWARD COMMONS, LLC
2619 EAST FRANKLIN AVENUE
MINNEAPOLIS, MN 55406

MARK-

Previously assigned PB
Site to you. Turns out to be
larger Parcel w/ several "phases"
of develop in progress, so
w/ing PB# 3661 as S.S.#.
Young Buccan - file ordered
hydro targets = 4/24.

ed by:

CIATES, INC.
ENUE NORTH
MINNESOTA 55441
9-3100

30, 2009
ER: 62002576.00

Thi
of 1

Aa
Pr



Dana J. Wagner, CHMM
Principal

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	PURPOSE AND SCOPE	1
2.0	BACKGROUND INFORMATION	2
2.1	HISTORICAL ENVIRONMENTAL REPORT SUMMARIES	4
2.1.1	Phase I Environmental Site Assessment, Bystrom Brothers Property, 22 nd Street East and Snelling Avenue, Minneapolis, MN prepared by Vieau Associates Inc. for SPECTRUM Commercial Services and dated March 30, 2005 (2005 ESA)	4
2.1.2	Phase II Investigation, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, MN, prepared by Vieau Associates, Inc. for Bystrom Brothers Inc. and dated March 22, 2006 (Vieau Phase Two ESA)	7
2.1.3	Phase One Environmental Site Assessment for Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch ESA)	7
2.1.4	Limited Phase Two Environmental Site Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Phase Two)	11
2.1.5	Sub-Surface Soil Gas Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Soil Gas Assessment)	13
2.1.6	Groundwater Monitoring Well Sampling, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated January 3, 2007 (Groundwater Monitoring Report)	15
2.1.7	French Drain Cleaning, Sampling and Abandonment Summary Letter prepared by Liesch for Bystrom Brothers and dated January 5, 2007 (French Drain Sealing Letter)	16
1.3.8	Interim Soil Management Response Action Plan, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC, dated May 8, 2007 (Interim RAP)	17
2.2	SUMMARY OF CONTAMINANTS AT THE PROPERTY	17
3.0	SITE RESPONSIBILITY	18

4.0	PROPOSED DEVELOPMENT RESPONSE ACTION PLAN (DRAP).....	19
4.1	EXCAVATION OF IMPACTED SOILS.....	20
4.2	SOIL CHARACTERIZATION (FIELD SCREENING AND LABORATORY ANALYTICAL PROCEDURES)	20
4.3	LANDFILL/SOIL TRANSPORTATION AND DISPOSITION.....	23
4.4	WATER REMEDIATION/TREATMENT	24
4.5	ASBESTOS	24
4.6	CONCRETE OR BRICK.....	24
4.7	CLEAN FILL IMPORTING.....	24
4.8	VAPORS	25
5.0	SITE SAFETY AND CONSTRUCTION CONTINGENCY PLAN	25
5.1	SITE SAFETY	25
5.2	CONSTRUCTION CONTINGENCY PLAN ACTION LIMITS.....	25
6.0	CONCLUSIONS.....	26

APPENDICES

Appendix A	Figure 1 – Property Location Map
	Figure 2 – Property Layout Map and Historical Boring and Sampling Locations
	Figure 3 – Preliminary Redevelopment Plan
Appendix B	Table 1 – Liesch Phase Two ESA Summary of Soil Analytical Results
	Table 2 - Liesch Phase Two ESA Summary of Groundwater Analytical Results
	Table 3 – Soil Gas Analytical Results
	Table 4 – Ground Water Monitoring Well Analytical Results

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

Liesch Associates, Inc. (Liesch) was retained by Seward Commons, LLC to prepare this Development Response Action Plan and Construction Contingency Plan (DRAP and CCP) for Seward Commons Bystrom Redevelopment, Phase I-PPL, commonly addressed as 2310 Snelling Avenue, Minneapolis, Hennepin County, Minnesota (the Property). The Property consists of 0.56 acres of land and is owned by 2200 Minnehaha, LLC. The Property is located in the NW ¼ of the NW ¼ of Section 36, Township 29 North, Range 24 West. **Figure 1** in **Appendix A** illustrates the location of the Property.

The Property is part of a larger parcel commonly referred to as the Bystrom Brothers site, 2200 Snelling Avenue, consisting of approximately 3.85 acres of land (the Bystrom Site).

The Property is currently a bituminous parking lot used for general parking. The Property was last used by Bystrom Brothers a metal turning manufacture of machine products, components and assemblies and subleased for general equipment and vehicle storage. The Property as part of the Bystrom Site was acquired in April 2007 by 2200 Minnehaha, LLC from Bystrom Brothers. Bystrom operated at the Property since the 1940s.

The Property is bound to the north by the 700 E-Tech Building, to the east by Snelling Avenue, to the south by 24th Street, to the west by Hiawatha Light Rail Line with Hiawatha (Highway 55) beyond.

This DRAP and CCP was prepared using the following environmental reports (Environmental Reports) that have been prepared for the Property:

The following Environmental Reports were prepared for the Bystrom Site by others:

- Phase I Environmental Site Assessment for Bystrom Brothers Property, 22nd Street East and Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Vieau Associates, Inc. for Spectrum Commercial Services Company, dated March, 2005 (the 2005 ESA)
- Phase II Investigation, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, MN 55404, prepared by Vieau Associates, Inc. for Bystrom Brothers Inc. c/o US Trust, dated March 22, 2006 (Vieau Phase Two ESA)

The following Environmental Reports were prepared for the Bystrom Site by Liesch:

- Phase One Environmental Site Assessment for Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch ESA)
- Limited Phase Two Environmental Site Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Phase Two ESA)
- Sub-Surface Soil Gas Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Soil Gas Assessment)
- Groundwater Monitoring Well Sampling, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated January 3, 2007 (Groundwater Monitoring Report)
- French Drain Cleaning, Sampling and Abandonment Summary Letter prepared by Liesch for Bystrom Brothers and dated January 5, 2007 (French Drain Sealing Letter)

All of the Environmental Reports were previously submitted for review to the Minnesota Pollution Control Agency (MPCA) Voluntary Investigation and Cleanup (VIC) program and Petroleum Brownfields Program (PBP). The previously submitted Environmental Reports are in support for the ultimate approval of this DRAP and CCP.

This DRAP and CCP includes the following:

- A description of work to be completed;
- Information concerning the proposed redevelopment of the Property;
- A description of known or suspected contaminants at the Property;
- The names and responsibilities of companies and individuals presently involved in the proposed redevelopment of the Property and or implementation of this DRAP;
- A description of methods intended to be used to segregate impacted soil from non-impacted soil at the Property; and
- A description of soil-management intended to allow for the proper disposition of impacted soil remediated from the Property.

This DRAP is prepared for MPCA PBP and VIC Program review and approval.

2.0 BACKGROUND INFORMATION

Known historical uses of the Property dated back to 1885 when the Property was occupied by a wooden barrel manufacturer. A dwelling was noted on the Property in an 1890 Sanborn map.

The 1949 Sanborn map indicates the Property is vacant except for the noted dwelling. The 1963 and 1968 Sanborn maps show the Property to be vacant.

The Property does not have buildings located on it, but the remaining portions of the Bystrom Site have an extended history of industrial use and development. The following table created from the Hennepin County Assessor, Taxpayer Services Department web-site records, provides a summary of the buildings that are currently present at the Bystrom Site, see Figure 2 in Appendix A for a Property Layout Map.

Parcel Address	Parcel Identification	Approximate Parcel Area (Acres)	Common Building Name	Year Building Constructed	Building Square Footage
2200 Snelling Avenue	36-029-24-22-0045	0.29	"100 Main Shop"	1957	9,830
2206 Snelling Avenue	36-029-24-22-0046	0.18	"600 CNC Shop"	1994	11,130
2210 Snelling Avenue	36-029-24-22-0047	0.17	"300 Mill Shipping"	1994	3,045
2214 Snelling Avenue	36-029-24-22-0048	0.19	"700 E-Tech Building"	1941	22,250
2218 Snelling Avenue	36-029-24-22-0049	0.18		1941	
2304 Snelling Avenue	36-029-24-22-0050	1.24		1948	
1912 22 nd St. East	36-029-24-22-0022	0.1	"North Parking Lot"	Not applicable	Not applicable
2115 Snelling Avenue	36-029-24-22-0023	0.51	"Storage Building and Garage"	1948	580 and 960
2215 Snelling Avenue	36-029-24-22-0105	0.61	"400 Apex Building"	1962	15,625
1915 22 nd Street East	36-029-24-22-0051	0.13	"200 Grinding Shop"	1960	10,700
2204 Minnehaha Ave.	36-029-24-22-0053	0.14		1994	
2200 Minnehaha Ave.	36-029-24-22-0052	0.11	"800 Print Shop"	1979	~2,000

The main metal machining operations were conducted in the 100 Main Shop, the 600 CNC Shop and the 400 Apex Building. The 100 Main Shop and the 600 CNC Shop are joined by a common wall. Bystrom operated approximately 50 automatic spindle-turning machines and several CNC machines. The metal turning operation used raw steel and brass that were shipped to the Property in the form of bar stock. The bar stock was machined at the various machines using various cutting oil products and Stoddard solvents. Metal cuttings, shavings and scrap were collected in small wheeled bins, which were processed in a centrifuge chip spinner to remove excess cutting oils from the metal. The metal scrap was stored in roll-off type bins and was sent off-site for recycling. Finished metal components were polished and ground in the 200 Grinding Shop and were packed for distribution at the 300 Mill Shipping Building.

The Bystrom Site, which includes the Property, has been enrolled in the MPCA's VIC program and 2200 Minnehaha, LLC has been issued a No Association Determination for the Bystrom Site. The Bystrom Site has also been enrolled in the PBP and the Bystrom Site has been issued closure by PBP for identified petroleum impacts. The remediation actions contemplated in this DRAP and CCP are intended to satisfy the MPCA's VIC program requirements upon implementation, and to ultimately receive a No Further Action Determination for the identified soil and ground water impacts from the MPCA VIC Program.

A multi-story apartment/assisted living complex for mentally handicapped individuals, with a footprint of approximately 18,500 square feet is planned for Property. Parking will be located under the building. Phase I-PPL is the common name for this first redevelopment of the Bystrom Site.

2.1 HISTORICAL ENVIRONMENTAL REPORT SUMMARIES

The following historical environmental reports were prepared for the Bystrom Site which includes the Property.

- 2.1.1 Phase I Environmental Site Assessment, Bystrom Brothers Property, 22nd Street East and Snelling Avenue, Minneapolis, MN prepared by Vieau Associates Inc. for SPECTRUM Commercial Services and dated March 30, 2005 (2005 ESA)

The 2005 ESA provided the following summary of environmental issues identified at the approximately Bystrom Site which includes the Property. For reference, the 700 E-Tech Building adjoins the north Property boundary (see Figure 2, Appendix A).

Historical records indicate that the Bystrom Site had been developed as a residential and

industrial property since at least 1885. Sanborn Fire Insurance Maps depict several industrial facilities on the Bystrom Site in the past, including a lumber yard, a barrel plant, a feed mill and elevator company, a print shop, a gear shop and several machine shops. Bystrom Brothers reportedly moved onto the Property in 1957. Specifically, the Property contained a wooden barrel manufacturing operation and a residence.

Hazardous substances (coolants and solvents), petroleum products (mostly hydraulic and lube oils) and small quantities of hazardous waste associated with used oil and cleaning solvents are used and generated at the facility. On-site observations identified numerous indications of spills and leaks from machines in the facility including pools of liquids contained in small containments around machines. No obvious gross violations or evidence of a major release was observed in connection with the current use of hazardous substances, petroleum products, or waste management practices. Vieau noted that Bystrom Brothers maintains a used oil-burning furnace in one of the buildings.

Eight aboveground storage tanks were observed in three production buildings. These tanks contained lube oils, rust proofing oils, waste oils, hydraulic oils and various solvents. Vieau noted several of the tanks had evidence of leaks or spills and many have stained the concrete surrounding the tank. Numerous 55-gallon drums of various oils, solvents and coolants were observed throughout the production buildings as well. No leaks were observed by Vieau in connection with the barrels. No secondary containment was observed around the tanks or barrels as required by the MPCA and EPA.

One oil-water separator tank was noted under the floor in the "E-Tech 700" building; no problems are known to exist in connection with this tank. This tank is a flow-through process tank and is exempt from registration and other underground storage tank requirements.

Bystrom Brothers acquired the "E-Tech 700" building about 10-15 years ago and have used it primarily for storage. Based on this information, Vieau concluded the sediment trap tank is not viewed as a concern.

Evidence of underground storage tanks was observed outside the "E-Tech 700" building. A pair of vent and fill pipes was observed on the east and west side of the building respectively. The tanks are reportedly closed-in place, but no documentation of the process or soil sampling associated with the closure can be found. It is also unclear what the tanks contained.

No site personnel were found that had actual knowledge of waste management practices prior to about 1988. Waste management practices at machining operations prior to hazardous waste laws (1980) or with no regulatory oversight have resulted in impacts from storage of coolant and solvent-contaminated waste chips in open dumpsters outside. Holes were sometimes purposely

drilled in the bottoms of containers to allow rainwater to drain and indicated this practice resulted in releases of chlorinated solvents to the subsurface and significant groundwater impacts. Additions on the buildings and re-grading or paving of the exterior have covered areas that could potentially have been used for storing waste metal chips in this manner; we cannot perform observations to evaluate this potential condition. In Vieau's opinion, there was an elevated risk of soil and groundwater impacts associated with unknown waste management practices of the pre-1988 machining operations on site. The relatively shallow depth to bedrock and proximity to the Mississippi River are factors that increase the potential severity of any such impacts. In Vieau's opinion, these factors combined with the likelihood that past machining waste management practices involved open chip dumpsters in exterior storage areas on bare ground, present a risk of chlorinated solvent contamination to soil, bedrock and groundwater on the Property, and constitute a recognized environmental condition on the Bystrom Site.

Vieau reported that a sump pit in the "Apex 400" building reportedly drains directly to the subsurface. They observed a small oily stream of liquid draining into the pit from a nearby waste chip bin. The building was historically a gear manufacturer. Vieau indicated there is potential for impacts from current and past land uses and in their opinion, the open sump pit in the concrete floor also represents a recognized environmental condition on the Bystrom Site.

Vieau noted there is some potential that asbestos-containing floor tile, textured paint, pipe insulation, wallboard or other PACM are present in the pre-1980 sections of the building. No significantly damaged or exposed friable materials were observed. Vieau concluded that recommendations for sampling or testing of these materials do not appear warranted as part of this assessment but that sampling and testing of the suspect building materials will be necessary if they become damaged or will be removed in the future.

The following recognized environmental conditions were identified in the 2005 ESA:

- Past machining waste management practices may have involved open chip dumpsters in exterior storage areas on bare ground, presenting a risk of chlorinated solvent contamination to soil, bedrock and groundwater on the Bystrom Site.
- Chlorinated solvent tanks were reported to exist in the buildings and at least one of the buildings contains a sump pit in the concrete that drains directly into the subsurface. The building with the open sump pit was historically a gear manufacturing business.

The 2005 ESA recommended Phase II soil and groundwater sampling and testing to check for the presence of volatile organic compounds impacts associated with solvents and petroleum products.

2.1.2 Phase II Investigation, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, MN, prepared by Vieau Associates, Inc. for Bystrom Brothers Inc. and dated March 22, 2006 (Vieau Phase Two ESA)

The Vieau Phase Two ESA provided to Liesch consisted of the text and figures of that report. The appendices, including the soil probe logs, were not included.

On March 6 and 7, 2006 soil probes were drilled at 13 locations (P-1 through P-13) on the Property. The soil probe locations designated P-1 through P-13 are shown on **Figure 2 in Appendix A**. Fifteen soil samples were collected from various soil probes at various depths for analysis of one or more of the following: VOCs, diesel range organics (DRO), gasoline range organics (GRO), RCRA 8 Metals, and polychlorinated biphenyl (PCBs). Groundwater samples were collected in 12 of the 13 soil probes and analyzed for VOCs and DRO and/or GRO. Four PCB wipe samples were collected and analyzed. P-4 was the only soil probe located on the Property.

The Vieau Phase Two ESA noted that shallow petroleum constituents were detected in probe P-1, and a low level of trichloroethene (TCE) was detected in a shallow interval in probe P-6. Various metals were noted as detected in the some of the soil samples at levels that appeared to be above naturally occurring levels.

Petroleum (primarily benzene and toluene) and non-petroleum (primarily TCE and related compounds) compounds were reported in the 2006 Phase II as detected across the Bystrom Site in the groundwater samples analyzed.

The 2006 Phase II stated that no PCBs were detected in the wipe samples.

A cover letter attached to the Vieau Phase Two ESA noted that Vieau reported the release to the MPCA and stated that additional investigation will likely be required.

2.1.3 Phase One Environmental Site Assessment for Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch ESA)

The Liesch ESA identified the following recognized environmental conditions on the Bystrom Site which includes the Property:

- The leaking aboveground storage tank (LAST) database indicates that a release from ASTs was reported for the Bystrom Site on March 20, 2006. The LAST incident was discovered during completion of the Vieau Phase Two ESA at the Bystrom Site which identified petroleum and solvent impacts in soil and groundwater.
- A single French drain exists in the 400 Apex building located across Shelling Avenue north of the Property. The French drain is covered by a steel plate and a small stream of air compressor condensate drains into the French drain. Liesch accessed the French drain and observed standing oil and water in the pit below, which is approximately 3' x 3' square. A steel rod approximately 8 feet in length was pushed into the bottom of the drain to assess for the presence of a bottom. Sediment and soils were encountered but no hard bottom was encountered. The rod was coated with oils upon removal. Bystrom has since cleaned out the French drain using a vacuum truck removing the liquids and saturated soil and filled the drain with concrete discontinuing discharge to the drain.
- Significant oil staining and pooling exists on the concrete floors in the 100 Main Shop, the 600 CNC Shop, the Apex Building and the 200 Grinding Shop which is caused by oil spillage and leaking near metal turning machines and near oil storage tanks. Generally, the concrete floors were coated with oils in each of the buildings at the Bystrom Site.
- In general, chemicals currently used at the Bystrom Site include cutting oils, rust proof oils, lube oil, coolants and Stoddard solvents. Within buildings utilized for manufacturing purposes, significant oil or other chemical spillage was observed covering the concrete floors in the 100 Main Shop, 600 CNC Shop, 400 Apex Building and the 200 Grinding Shop. Small quantities of hazardous materials are also stored and used on the Property. Mr. Kevin Haeg had no knowledge of past chemical usage such as tetrachloroethylene (TCE) as a degreaser. While the Bystrom Site does not currently use TCE, the presence of TCE has been detected at the Bystrom Site in both soil and groundwater during the 2006 Vieau Phase Two ESA.
- Three underground storage tanks (USTs) have been registered at the Bystrom Site at the 700 E-Tech Building, which adjoins the Property. According to the Environmental Data Resources (EDR), the USTs are reportedly closed in place. Liesch observed evidence indicating the location of two of the three USTs. A fill/vent pipe was observed on the east side of the 700 E-Tech Building on the exterior wall and a fill/vent pipe was observed on the west side of the 700 E-Tech Building near the exterior wall. Liesch utilized a magnetometer and requested a private utility company to assess the two locations of the observed vent and fill pipes. It was determined that if the USTs remain at the Bystrom

Site, the USTs likely exist beneath the concrete floor and are positioned beneath the 700 E-Tech Building. It is unknown if the USTs have been properly abandoned in place. The location of the third registered UST was not identified during the walkover survey. The location of the UST maybe at the northwest corner of the 700 E-Tech Building and the 300 Mill Shipping Building where a UST was depicted on a 1949 Sanborn maps.

- Review of the Sanborn maps indicate that portions of the Bystrom Site and the Property have been used as a Barrel Manufacturing Company “cooperage”, a feed mill elevator, a printing facility, a machine shop, and possibly for tar storage, all of which may have included the storage and use of environmental contaminants, such as wood treatment chemicals, solvents and petroleum products. Up to approximately five storage tanks may have existed on the Bystrom Site based on the Sanborn map review.
- The site located adjacent to the 700 E-Tech Building across Snelling Avenue to the east and addressed as 2309 Snelling Avenue, Minneapolis, Minnesota is listed on the Minnesota List of Sites (MN LS) and Voluntary Investigation and Cleanup (VIC) Database. Review of the EDR provided data indicates that the site was enrolled in the MN VIC program on November 16, 2004. It appears that investigation consisted of a Phase One ESA that identified the site has historically been used by the Dalton Gear Company in 1951, Numeric Machining from 1967 to 1990 and Garlock Roofing from 1986 to 1990. No data regarding the nature of environmental issues was provided. 2309 Snelling Avenue represents a recognized environmental condition for the Bystrom Site based on the adjacent location.

The ESA identified the following historical recognized environmental conditions on the Property:

- A MN SPILL incident was reported at the Bystrom Site by an anonymous source on March 23, 1989. The source of the release was reported to be disposal/abandonment and/or dumping. The product type spilled was not provided in the EDR Report nor was there any description of remedial actions taken. The MN SPILL’s incident for the Bystrom Site was issued closure by the MPCA on January 1, 1996. Liesch recommended requesting MPCA files for the SPILL issues to provide documentation of the SPILL location and if cleanup occurred. It is possible the impact or residual impacts remain in the soil or groundwater from the SPILL incident.

The ESA identified the following items of environmental note, which require existing or future environmental compliance activities.

- Four manholes exist in the northern portion of the 700 E-Tech Building, which adjoins the Property. Liesch accessed each of the four manholes and identified that the pits beneath the manholes have been filled in with sand in three of the four manholes. The single manhole that was not filled-in provided visual observation to a square steel lined pit approximately 2 feet square and 3 feet in depth. A small metal pipe was observed in the bottom of the pit. The pipe appears to run to an interior wall where various metal pipes had been cut-off. It is suspected that the small piping may have transferred product to or from the pit. A long floor trench drain exists in the 700 E-Tech Building. The trench drain has been covered with steel plate and has been welded down so visual inspection of the trench drain was not possible.
- Two floor drains were observed in the 100 Main Shop, which is located 300 feet north of the Property. The drains appear to be connected by an approximately 2 inch diameter steel sewer line which is evident above the slab near the western drain but runs beneath the slab floor between the drains. A steel plate approximately 3'x4' wide exists between the two floor drains. It was originally believed that the steel plate covers a French drain. However, upon accessing the steel plate it was discovered that a single floor drain exists beneath the plate and is not a French drain.
- A soil pile mixed with concrete and brick debris was observed on the Property in the southwest corner. The pile was overgrown with weeds but evidence of rubble and debris was noted.
- Two floor drains were observed in the 600 Main Shop, which is located 300 feet north of the Property. Private utility locating identified that the western floor drain connects to the eastern floor drain, which then discharges to a steel flammable waste trap prior to discharge to the municipal sanitary sewer line on Snelling Avenue.
- Metal chip bins are stored on the interior of the buildings with the exception of a storage bin located in the north parking lot. The bin is located on the asphalt pavement, but evidence of staining was observed on the asphalt.
- Several air compressors exist at the Bystrom Site. Two air compressors were observed in the 100 Main Shop and one was observed in the 400 Apex Building. Oil staining and leaking was observed near the air compressors. It appears that polychlorinated biphenyl (PCB) wipe samples were collected during the 2006 Vieau Phase Two ESA, near all but

one of the compressors. The results of the wipe sampling did not identify the presence of PCBs.

- A total of nine ASTs exist on the Bystrom Site and all of the ASTs are single wall steel tanks. The tanks are positioned on the concrete floor within the various buildings. No secondary containment systems exist around the ASTs. Oil staining was observed on the floors beneath most of the ASTs. Floor dry compound has been placed beneath many of the ASTs to help absorb spilled product. None of the ASTs are located on the Property.
- The Bystrom Site has an extended history of industrial and commercial use extending back to the 1800s. Several old foundations structures may exist on the Bystrom Site including the Property; however, no evidence of old foundations was observed.
- Suspect asbestos-containing materials (ACM) observed in the building during the walkover include sheetrock, drywall/joint compound, ceiling panels, mastics and adhesives, floor tiles/mastic, floor sheeting, thermal system insulation, and roofing materials. In accordance with the State of Minnesota and Federal regulations regarding asbestos-containing materials, all friable and non-friable materials must be maintained in a not damaged condition. Damaged ACM must be repaired or removed. In addition, all friable and non-friable ACM that may become friable must be identified and removed prior to renovation or demolition. Regulated asbestos abatement needs to be performed by an asbestos abatement contractor licensed by the State of Minnesota. The State of Minnesota also licenses workers, supervisors, and air monitoring personnel.

2.1.4 Limited Phase Two Environmental Site Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Phase Two)

The Liesch Phase Two identified numerous VOCs including chlorinated and non-chlorinated solvents as well as petroleum based VOCs in soils analyzed in the upper 4 to 6 feet bgs across the Bystrom Site including the Property. The VOC impacts appear to be widespread; however, many of the VOC concentrations are below the MPCA soil guidance standards. Chlorinated solvent impacts in soil include trichloroethene (TCE), tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE) and trans 1,2-dichloroethene (trans-1,2-DCE). While these chemicals are not used in the present manufacturing operations conducted by Bystrom, chlorinated solvents are common degreasing agents and were likely used in historical machining operations. TCE concentrations exceed the MPCA's soil guidance standards in soil in the upper

4 to 6 feet beneath the 700 E-Tech Building and the Bystrom Site. Relatively high TCE and cis-1,2-DCE concentrations were also identified in the vacant land on the northernmost portion of the Bystrom Site near the Storage Building and the Garage.

The Liesch Phase Two identified the presence of heavy metals, namely barium, arsenic, lead, mercury and cadmium exceeding the MPCAs soil standards. The extent of metals impacts at the Bystrom Site appear to be limited to the upper 4 to 6 feet of soils across the Bystrom Site based on laboratory analysis. The heavy metal impacts at the Bystrom Site are likely the result of past industrial land usage such as a barrel manufacturing and wood treating process as well as metal machining. Wood barrel manufacturing was located on the Bystrom Site in the past.

DRO and SVOC impacts at the Bystrom Site also appear to primarily exist in the top 4 to 6 feet of soil. Significant DRO impacts, while not likely directly related to metals or VOC detections, appear to be commingled in similar areas. The most significant DRO impacts exist on the vacant land on the northernmost portion of the Bystrom Site near the Storage Building and the Garage which is believed to have historically been used for or located adjacent to a lumberyard which may have conducted wood treatment operations. In general, the lower-level DRO elsewhere on the Bystrom Site likely originated from the current and historical petroleum usage including use of cutting oils on the Bystrom Site. SVOCs impacts are believed to be related to the DRO impacts at the Bystrom Site. SVOC impacts are also greatest in areas exhibiting elevated DRO impacts. Soil analytical results are summarized on Table 1 in Appendix B. Soil impacts detected on the Bystrom Site include barium above Tier 1 SRV, lead above Tier 2 SRV, and trichloroethene above Tier 1 SLV.

While few VOCs were detected in ground water samples analyzed from across the Bystrom Site, the concentrations of TCE exceed the Minnesota Department of Health (MDH) Health Risk Limit (HRL). Metals such as barium, lead and selenium are at concentrations below the MDH's HRLs and are not anticipated to be of concern. While the impacted ground water is not considered a resource aquifer which would be utilized as a drinking water source, the impacts will require on-going monitoring until further remediation of the soils on the Bystrom Site is completed. Groundwater analytical results are summarized on Table 2 in Appendix B. Ground water impacts detected on the Bystrom Site include trichloroethene above the HRL at two locations.

2.1.5 Sub-Surface Soil Gas Assessment, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated December 11, 2006 (Liesch Soil Gas Assessment)

To assess sub-surface soil gas at the Bystrom Site in response to soil and groundwater impacts identified in the 2006 Vieau Phase Two ESA and the Liesch Phase Two, Liesch advanced ten soil gas probes inside and outside the on-site buildings to obtain subsurface soil gas samples for analysis by an independent laboratory for VOCs EPA Method TO-15.

Soil gas contaminants were detected in each of the ten soil gas probes. Benzene, 1,2-butadiene, chloroform, cis-1,2-DCE, trans-1,2-DCE, ethylbenzene, PCE, TCE, 1,2,4-TMB and 1,3,5-TMB exceed the ISVs in various probe locations as outlined on Table 3 in Appendix B. TCE, a chlorinated solvent which has also been detected at the Bystrom Site in soil and groundwater, is the highest concentration soil gas contaminant detected at the Bystrom Site. The highest TCE concentrations were detected in SG-10, advanced on the northern portion of the Bystrom Site, SG-1, SG-2 located on the Property, and SG-3 located inside the adjoining 700 E-Tech Building.

The area of SG-1, SG-2 and SG-3 has groundwater TCE impacts and low-level TCE soil impacts. This area is suspected of being a source area for TCE. However, the soil impacts are at relatively low concentrations and the impacts are rather sporadic in location and do not appear to be worthy of spot removal. Groundwater impacts detected in the area of SG-1, SG-2 and SG-3 exhibit the highest TCE concentrations at the Bystrom Site and are being monitored long term with groundwater monitoring wells.

TCE soil gas impacts detected in SG-10 are the highest on the Bystrom Site and relate to TCE impacted soils as high as 18 ppm identified in the vicinity of SG-10. Other soil gas contaminants detected across the Bystrom Site appear to be consistent with the TCE groundwater contaminants present across the Bystrom Site as well as the contaminated upper soils at the Bystrom Site.

Based upon the findings of the Liesch Soil Gas Assessment, Liesch recommended the following actions for the Bystrom Site:

- Liesch does not believe that additional soil gas sampling is necessary at the Bystrom Site as the extent and magnitude of soil gas at the Bystrom Site is relatively consistent and has been defined by the ten sample locations.

Liesch recommended the following mitigation activities be completed at the Bystrom Site to

protect current and future building occupants.

- Sealing of large concrete slab joints, cracks and penetration in each of the buildings. The sealing of cracks and penetrations in the concrete slab floor may help to prevent migration of vapors through the slab and into each of the buildings.
- Complete Minnesota Department of Health indoor building survey forms for each of the buildings at the Bystrom Site. The indoor building surveys provide construction data and heat unit data for each of the buildings. As part of the indoor building's survey, HVAC operating statistic for each of the building's air handling units will be compiled and provided to the MPCA. Liesch has requested Bystrom to provide Liesch with HVAC air exchange and make up unit air flow capacities for each of the buildings. This data will help to demonstrate that the buildings are intended to be maintained in a positive pressure environment which may help to reduce vapor migration into the building. Air exchange data will demonstrate the number of air exchanges of the indoor air with fresh air which may also reduce the buildup of soil vapor inside the building.
- Provide Bystrom and other tenants or future tenants with all environmental sampling reports generated for the Bystrom Site.
- Should the Bystrom Site undergo redevelopment which includes underground parking, those development activities will likely result in removal of impacted shallow soils at the Bystrom Site thus removing the low-level TCE soil impacts as well as other impacts present in the top 4 to 6 feet of soil at the Bystrom Site. Redevelopment activities will be subject to MPCA required soil set backs in areas not remediated during redevelopment.
- Redevelopment activities will need to incorporate sub-slab ventilation in the new structures. Liesch understands that conceptual redevelopment plans include underground parking structures under the majority of the proposed buildings. Underground parking incorporates air handling units capable of removing automotive exhausts, which has been approved by the MPCA in the past as vapor protection from soil vapor intrusion and accumulation. Design considerations to prevent vapor migration such as vapor barrier along sub-surface foundation walls and under concrete slabs, and passive sub-slab ventilation systems in concrete slab structures which are not underground parking, should also be incorporated.

2.1.6 Groundwater Monitoring Well Sampling, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC and Seward Redesign, dated January 3, 2007 (Groundwater Monitoring Report)

Trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE) were detected in groundwater samples analyzed from across the Bystrom Site in the four groundwater monitoring wells and during the groundwater sampling completed during the Liesch Limited Phase Two ESA, the concentrations of TCE exceed the MDH HRL. Dissolved Resource Conservation and Recovery Act (RCRA) metals concentrations are at concentrations below the MDH's HRL and are not anticipated to be of concern. DRO impacts in the groundwater were detected at or below the Health Based Value (HBV) of 200 ppb during the groundwater monitoring and based on the low-level concentrations, DRO is not expected to be a contaminant of concern for the Bystrom Site.

MW-1 is located on the Bystrom Site, which was sampled in November and December of 2006 as part of the Groundwater Monitoring Report. Groundwater was also collected from soil boring B-2 and B-5 during the 2006 Liesch Limited Phase Two ESA. The groundwater samples collected from MW-1, B-2 and B-5 are above the HRL for trichloroethene.

Impacted shallow ground water is not considered a resource aquifer which would be utilized as a drinking water source as municipal services are available in the area. Based on the relatively stable groundwater monitoring results and the relatively low-level concentrations of impacts at the Bystrom Site, further groundwater monitoring does not appear to be necessary. While the TCE impacts exceed the MCL, the fact that the groundwater is not utilized as a resource aquifer, the TCE impacts do not appear to require remediation or further assessment at this time.

Based upon the findings of the Groundwater Monitoring Report, Liesch made the following conclusions for the Bystrom Site:

- Based on the relatively stable groundwater monitoring results and the relatively low-level concentrations of impacts at the Bystrom Site, further groundwater monitoring does not appear to be necessary. Furthermore, while the TCE impacts exceed the MCL, the fact that the impacted groundwater is not utilized as a resource aquifer the TCE impacts do not appear to require remediation or further assessment at this time.
- Request from the MPCA Voluntary Investigation and Cleanup (VIC) Program a No Action Determination for groundwater impacts at the Bystrom Site. A deed notice restricting

groundwater use will be required for the Bystrom Site by the MPCA as part of the No Action determination.

- Request from the MPCA Petroleum Brownfields Program (PBP) a non-tank closure determination for the Bystrom Site for identified petroleum impacts.

2.1.7 French Drain Cleaning, Sampling and Abandonment Summary Letter prepared by Liesch for Bystrom Brothers and dated January 5, 2007 (French Drain Sealing Letter)

The French drain cleaning, sampling and abandonment occurred at the Apex Building located across Snelling Avenue north of the Bystrom Site. Minnesota Blue, a vacuum truck contractor, was retained to pump the liquids and saturated soils from the French drain. Minnesota Blue removed and disposed of approximately 485 gallons of liquid and 55 gallons of sludge/soils. The drain cleaning was completed on November 10, 2006. Liesch collected one soil confirmation sample (French Drain) upon removal of the liquids and saturated soils for laboratory analysis of DRO, VOCs, SVOCs, Resource Conservation and Recovery Act (RCRA) Metals and polychlorinated biphenyl's (PCBs). Bystrom filled the cleaned out French drain with ready mix concrete to bring the French drain flush with the existing slab floor around.

The single soil (sample ID 'French Drain') sample collected from the bottom of the cleaned out French drain was submitted for laboratory analysis. The soil sample was collected at approximately 7 feet below ground surface (bgs).

The soil sample detected the presence RCRA metals barium at 36 ppm, chromium at 5.5 ppm, and lead at 10 ppm. All of the RCRA metals are below the Tier I Soil Reference Value (SRV) and the Tier 1 Soil Leaching Value (SLV). Several VOCs were detected below the Tier 1 SRV as well as the Tier 1 SLV. The VOCs include sec-butylbenzene at 0.055 ppm, p-isopropyltoluene at 0.063 ppm, 1,2,4-trimethylbenzene at 0.73 ppm, 1,2,3-trimethylbenzene at 0.36 ppm, and 1,3,5-trimethylbenzene at 0.22 ppm. DRO was detected at 120 ppm. No SVOCs or PCBs were detected in the French drain confirmation sample.

While there are VOCs and DRO present in the confirmation soil sample collected upon cleanout of the French drain, the contaminated soil concentrations are below the Tier I SRV and SLVs and the DRO impacts are relatively low. Furthermore the concentrations are below other site soil impacts detected at the Bystrom Site by Liesch during completion of the Liesch Phase Two. Since the French drain has been abandoned and the gross contaminated soils and liquids have been removed, Liesch does not recommend any further action with regard to the French drain at the Bystrom Site. Liesch recommends submitting a copy of this letter to the MPCA for inclusion

in their site file.

1.3.8 Interim Soil Management Response Action Plan, Bystrom Brothers, 2200 Snelling Avenue, Minneapolis, Minnesota 55404, prepared by Liesch for 2200 Minnehaha, LLC, dated May 8, 2007 (Interim RAP)

Liesch prepared this Interim Soil Management Response Action Plan (Interim RAP) for Bystrom Brothers commonly addressed as 2200 Snelling Avenue, Minneapolis, Hennepin County, Minnesota. This Bystrom Site consisted of 12 parcels of land with the majority leased to Bystrom Brothers, a metal machining company.

This Interim RAP was developed to manage soils which may be disturbed by routine maintenance at the Bystrom Site, minor site improvements, such as installation of building additions, construction of loading docks or any other interim construction activities that will interact with shallow soils at the Bystrom Site. This Interim RAP was intended to properly manage known environmental concerns which may be disturbed by the interim actions. Response actions proposed for the Bystrom Site included monitoring and management of soils at the Bystrom Site during any soil disturbance activities which may include but is not limited to the installation of footings, site grading, installation of loading docks at existing buildings and general site grading or utility improvements. This response action allowed for the proper disposal of soils requiring exporting from the 4 acres site and proper placement of disturbed soils.

2.2 SUMMARY OF CONTAMINANTS AT THE PROPERTY

Environmental investigations and sampling have identified numerous VOCs including chlorinated and non-chlorinated solvents as well as petroleum based VOCs in soils analyzed in the upper 4 to 6 feet bgs across the Property. The VOC impacts appear to be widespread at the Property as well as across the Bystrom Site. Chlorinated solvent impacts in soil include trichloroethene (TCE), tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE) and trans 1,2-dichloroethene (trans-1,2-DCE). These chemicals are no longer used at the site but were used in historical machining operations at the Bystrom site. TCE concentrations exceed the MPCA's soil guidance standards in soil in the upper 4 to 6 feet at the site which require remediation and proper handling and off-site disposal as part of the planned residential development.

Environmental investigations and sampling have identified the presence of heavy metals, namely barium, arsenic, lead, mercury and cadmium exceeding the MPCA Residential SRV soil standards. The extent of metals impacts at the site appear to be limited to the upper 4 to 6 feet of soils across the site based on laboratory analysis. The heavy metal impacts at the site are likely

the result of past industrial land usage such as a barrel manufacturing and wood treating process as well as metal machining.

Diesel range organics (DRO) and semi-volatile organic compounds (SVOC) impacts at the Property also appear to primarily exist in the top 4 to 6 feet bgs of soil. Significant DRO impacts, while not likely directly related to metals or VOC detections, appear to be commingled in similar areas. In general, DRO on the Property likely originated from historical petroleum usage including use of cutting oils. SVOCs impacts are believed to be related to the DRO impacts at the Property. SVOC impacts are also greatest in areas exhibiting elevated DRO impacts.

3.0 SITE RESPONSIBILITY

The following parties and their representatives are those currently involved in the development of the Property and implementation of this DRAP:

OWNER

2200 Minnehaha, LLC
2424 Kennedy Street NE
Minneapolis, MN 55413
Primary Contact: Scott Tankenoff
Phone: (612) 371-0123
Fax: (617) 542-2241

PROSPECTIVE PURCHASER/ DEVELOPER

Seward Commons, LLC
2619 East Franklin Avenue
Minneapolis, MN 55406
Primary Contact: Brian Miller
Phone: (612) 338-8729 ext 107

ENVIRONMENTAL CONSULTANT

Liesch Associates, Inc. (Liesch)
13400 15th Avenue North
Plymouth, Minnesota 55441
Phone (763) 489-3100
Fax (763) 489-3101
Contact: Dana Wagner (Project Principal)
Phone: (763) 489-3161
Contact: Aaron Benker (Project Manager)
Phone: (763) 489-3147

MINNESOTA POLLUTION Minnesota Pollution Control Agency (MPCA)

CONTROL AGENCY
(VIC/PBP)

Petroleum Brownfields Program and
Voluntary Investigation and Cleanup Program
520 Lafayette Road North
St. Paul, Minnesota 55155
Contact: MPCA PBP – Mark Koplitz
Phone: (651) 296-7999
Contact: MPCA VIC Program –Ed Olson
Phone: (651) 296-8111

4.0 PROPOSED DEVELOPMENT RESPONSE ACTION PLAN (DRAP)

This DRAP has been developed to address known environmental concerns identified in Section 1.0. The following response actions are proposed for the Property:

- Excavation and remediation of soils at the Property from 0–4 feet below grade (fbg). The excavation and removal of these soils is intended to remediate the Property to soil standards below the MPCA’s Tier I SLV and Residential SRV. This response action allows for proper monitoring and off-site disposal of soils requiring export from the Property.
- Excavation, monitoring and management of soils at the Property during the excavation for underground parking to depths of approximately 12 fbg, installation of building footings, foundations, general site grading and utilities in areas of known or suspected soil contamination. This response action also allows for proper monitoring, beneficial reuse of suitable soils at the Property and off-site disposal of soils requiring export from the Property.
- The proposed structure on the Property will have underground parking beneath the entire footprint of the building. Mechanical ventilation of the underground parking is engineered into the design of the structure. The mechanical ventilation and the underground parking space will ventilation and mitigation sub-slab vapor and provide for adequate separation from the future occupied building caused by residual impacts in soils or underlying ground water.

The proposed response actions are described in detail below to ensure proper monitoring, handling, management and disposal of impacted soils displaced at the Property and to provide development conditions suitable for the proposed redevelopment. All response actions will be conducted in accordance with appropriate Site Safety Plans prepared by each Contractor.

4.1 EXCAVATION OF IMPACTED SOILS

The proposed redevelopment building has a building footprint of approximately 18,500 square feet of the 24,451 square foot Property. The remaining area will be used for sidewalks, patios, green space and landscaping. It is estimated that approximately 10,700 cubic yards of soil will be excavated from the Property. This includes soils from 0-4 fbg across the Property and excavation to 12 fbg for the construction of underground parking beneath the building.

Based on soil investigations completed at the Bystrom Site the majority of the impacted soils appear to exist in the upper 4 feet below grade across the Property. This DRAP proposes remediation activities to excavate and remove the mass quantity of contaminated soils that exist in the upper soils across the Property. This DRAP proposes the removal of the upper 4 feet of soil across the Property by excavating and disposing of the contaminated soil off-site at a Subtitle D landfill as daily cover or in-cell placement. Liesch estimates approximately 4,680 cubic yards will be excavated to remove the soils from 0-4 fbg and remediate the Property to below residential SRVs and Tier I SLVs.

Excavation of soils from 4-12 feet in the footprint of the building for underground parking structures will displace approximately 7,150 cubic yards of soil. Based on analytical testing to date, the majority of the soils below 4 fbg, exhibit soil concentrations below the Tier I SLV and residential SRV. Beneficial reuse of these soils to backfill the Property outside the building footprint is proposed and will allow for reuse of approximately 1,130 cubic yards of these soils. Liesch will sample the soils excavated from 4-12 feet beneath the building footprint in accordance with **Table C**, in **Section 3.2**, below. Soils which exhibit VOCs, RCRA metals and PAH results below the Tier I SLV and Residential SRV will be used as backfill at the Property.

The field screening and sampling to ensure the proper removal and disposal of soils is described in **Section 3.2**. The management of impacted soils will be conducted as described in **Sections 3.2** and **3.3**.

4.2 SOIL CHARACTERIZATION (FIELD SCREENING AND LABORATORY ANALYTICAL PROCEDURES)

A Liesch environmental technician will be on-site during soil excavation and grading activities to screen soils for evidence of impacts, collect laboratory soil samples as necessary, and direct and document the disposition of the impacted materials.

Field screening will be conducted on grab samples obtained from the soil excavation activities or from the bucket of the backhoe being used by the excavation contractor. Soils will be screened

using visual and olfactory observations. Field screening for VOC will also be conducted when impacts are apparent, based upon visual and olfactory observations. VOC field screening will be conducted in general accordance with MPCA Field Screening Procedures outline in MPCA Fact Sheet 4-05 "Soil Sample Collection and Analysis Procedure" using a photoionization detector (PID). Liesch will screen soils using a PID equipped with a 10.6 electron volt (e.V.) lamp calibrated to an isobutylene standard. Due to common lamp failure with 11.7 e.V. PID lamps, the 10.6 e.V. lamp which is a reliable field screening tool will be used.

Remediation Response Action Sampling and Screening

Excavation of soils from grade to approximately 4 feet below grade will remove the mass quantity of impacted soils along with soils displaced during the construction of underground parking to 12 feet within the building footprint. This response action will include off-site disposal as daily cover or in-cell placement at a local Subtitle D landfill. Liesch will conduct soil screening to assess whether soils are similar in nature to historical sampling and to screen for soil impacts. Soil sampling characterization for soil disposal at a landfill will be completed in compliance with the selected landfill acceptance requirements. It is anticipated that landfill approval will be issued based upon the historical soil sampling completed and TCLP analysis for lead.

Soils at the Property between 4 to 12 feet are expected to have low level impacts and are proposed to be reused if impacts are below the MPCA's Residential SRVs. Only soils with PID results below 10 ppm on the PID are suitable for backfill along utility lines.

1. Soil to be exported from the Property for unrestricted commercial/industrial use would have all of the following characteristics:

- Free of debris, asbestos containing material, visual staining and petroleum/chemical odors;
- Field headspace readings using a PID below background concentrations (e.g., less than 5 ppm); and
- Contains contaminants below Residential Soil Reference Values and Tier I Soil Leaching Values; and
- Contains less than 10 mg/kg DRO with silica gel cleanup.

If considerable volumes of concrete and other inert material are identified and it is cost effective, this material may be mechanically screened assuming the above conditions are met.

2. Soil to be potentially re-used on the Property in an unrestricted manner would have all of the following soil characteristics:

- Free of debris, asbestos containing material, visual staining and petroleum/chemical odors;
- Field headspace readings using a PID below 10 ppm; and
- Contains contaminants below Residential Soil Reference Values and Tier I Soil Leaching Values

If considerable volumes of concrete and other inert material are identified and it is cost effective, this material may be mechanically screened on-site and re-used assuming the above conditions are met.

3. It is anticipated that a portion of the soil excavated to accommodate the underground parking will require landfill disposal based on the laboratory results and presence of debris. If the soil has one or more of the following characteristics, the material would be shipped to landfill:

- Contains debris or has visual staining or petroleum/chemical odors;
- Field headspace readings using a PID above background concentrations (e.g., greater than 10 ppm); and/or
- Contains contaminants above Commercial Soil Reference Values or Tier I Soil Leaching Values.

If considerable volumes of concrete and other inert material are identified and it is cost effective, the soil with debris may be mechanically screened to reduce of volume of soil to be disposed of at a MPCA approved disposal facility.

Final Excavation Bottom Sampling

To document the extent of soil excavation and contaminant removal, soil samples from the base of the excavation will be collected for laboratory analysis of the following parameters:

- Polynuclear Aromatic Hydrocarbons (PAH) EPA Method 8270;
- VOCs in accordance with EPA Method SW846 8260; and
- Resource Conservation and Recovery Act (RCRA Metals) EPA Method 6010.

Table A

Excavation Floor Sampling

Floor Acreage	Grid Interval For Sample Collection
0.25-3.0 Acres (10,890 to 130,680 sq ft)	15-30 foot Grid Interval
3.0 and Over	30 Feet

Table B
Excavation Sidewall Sampling

Aggregate Area of all Sidewalls (sq ft)	Number of Samples
< 500	4
500 – 1,000	5
1,000 – 1,500	6
1,500 – 2,000	7
2,000 – 3,000	8
3,000 – 4,000	9
> 4,000	1 sample per 45 lineal feet of sidewall

When sampling the sidewalls of excavations that exceed 5 feet in depth, the sidewall sampling locations must be staggered in the vertical plane.

Table C
Stockpile/Soil On-Site Reuse Sampling

Cubic Yards of Soil	Number of Samples
0-500	1 per 100 cubic yards
501 – 1,000	1 per 250 cubic yards
1,000 or more	1 per 500 cubic yards

4.3 LANDFILL/SOIL TRANSPORTATION AND DISPOSITION

It is anticipated that export soils remediated from the top 4 feet across the Property, soils sampled and exceeding the SLV or industrial SRV, or any soils of excess balance will be disposed of as daily cover or in-cell placement at a local Subtitle D landfill. Sampling of soils for disposal at the landfill will be completed in compliance with the selected landfill. It is anticipated that the landfill approval will be issued based on the historical soil sampling completed to date.

Contaminated soil with impacts from both petroleum and non-petroleum sources can often be disposed of at a municipal solid waste (MSW) landfill as either an industrial waste or an alternative daily cover material. The decision on whether the material can be used as a daily cover is dependent upon the level of contamination present in the material subject to disposal, the

associated exposure and environmental risks, and the volume of the facilities current daily cover stockpile. As with land application, landfilling takes advantage of naturally occurring microorganisms in the MSW and soil to biodegrade the petroleum constituents. In addition, some volatilization of contaminant constituents present in the impacted soils takes place during the landfill operation and concurrently with landfill gas management.

4.4 WATER REMEDIATION/TREATMENT

Ground water at the Property exists at a depth of approximately 18 to 20 feet. The redevelopment activities proposed for the Property are not anticipated to extend to ground water. However, the potential for stormwater or ground water to collect in excavations and or dewatering for installation of utilities is possible. Should stormwater or ground water be encountered, dewatering will be required. The removal of water will require proper disposal. In this event, Liesch will obtain, prior to excavation activities, a temporary permit to discharge to a municipal sanitary sewer treatment facility from the Metropolitan Council Office of Environmental Services (MCES). The water discharge to the sanitary sewer system will be sampled and analyzed in accordance with MCES permit requirements.

4.5 ASBESTOS

No buildings are present on the Property. Any potential asbestos containing material will be managed in accordance with the current VIC Guidance Document #9 "VIC Program Guidance for Investigation and Remediating Asbestos Waste Material".

4.6 CONCRETE OR BRICK

Debris such as concrete or brick removed during excavation work shall not be returned to the Property, but disposed of in a permitted landfill.

4.7 CLEAN FILL IMPORTING

Sampling of imported fill will not be completed if the location of the fill material is undeveloped land (i.e. no known source of contamination). The same principal (no known source of contamination) would apply to obtaining fill from a gravel pit.

If there is a reason to suspect contaminated fill (e.g. uncontrolled pile of fill from a construction site, a known release site, a current or formerly developed site), Liesch proposes to sample this material prior to importing it to the Property. The contractor will be responsible to make sure enough time is given to sample and analyze the soils prior to transporting the soils. Liesch proposes one soil sample per approximately 500-cubic yards be collected and analyzed to

characterize the fill material. The samples will be analyzed for: VOCs, RCRA metals, DRO (utilizing the silica gel clean up procedure) and GRO. The fill material will be considered acceptable if DRO and GRO are below 10 mg/kg; VOCs are below laboratory reporting limits and the RCRA metals are below the MPCA residential SRVs and Tier I SLVs.

Another option at a suspect contaminated fill site would be to review a Phase I ESA report and a Phase II ESA report to learn more about possible contamination. If there is sufficient information in the reviewed reports, confirmation sampling may not be necessary. Field screening soil samples with A PID could be an additional step if warranted after review of available reports. Collecting soil samples for lab analysis would be the last confirmation step to see if contamination exists, if the field review and field screening of soil was not favorable.

4.8 VAPORS

Liesch understands that redevelopment plans include underground parking under the proposed building. Underground parking incorporates air handling units capable of removing automotive exhausts, which has been approved by the MPCA in the past as vapor protection from soil vapor intrusion and accumulation. Design considerations to prevent vapor migration such as vapor barrier along sub-surface foundation walls will also be incorporated. Plans for the air handling system will be provided to the MPCA.

5.0 SITE SAFETY AND CONSTRUCTION CONTINGENCY PLAN

5.1 SITE SAFETY

A Site Safety Plan will be prepared for use on-site by Liesch personnel during field investigation and development activities. The Site Safety Plan will provide a hazard assessment based on existing soil analytical data and will specify general work and monitoring procedures to be utilized to minimize safety incidents. Safety equipment, decontamination procedures, site control and emergency contacts will also be included. Both public and private utility locates will be completed during subsurface field activities. All subcontractors and general contractors will be responsible for preparation of their task related site safety plans.

5.2 CONSTRUCTION CONTINGENCY PLAN ACTION LIMITS

In the event that unanticipated impacts are noted during construction, the actions discussed in this section will be implemented. Workers will be advised to be observant and on the lookout for obvious signs that impacted materials have been encountered or unearthed. Those signs may include:

- strong or unusual chemical odors;
- obvious physical signs of industrial or other wastes, including tars, sludges, powders, resins, liquids, or drums;
- unlabelled drums or containers;
- buried metal objects such as tanks and ground water production wells;
- above ground metal objects such as vent pipes;
- buried building materials that may contain asbestos containing materials (ACM); and
- co-workers who suddenly become ill on the Property.

The following protocols will be followed in any situation where impacted materials are encountered that were not anticipated and which may pose a significant hazard to human health or the environment:

1. Work in the area where the waste/impacts are encountered will be stopped immediately, the area secured, and the General Contractor Project Manager and Liesch Project Manager notified to assemble a response team and arrange for a preliminary inspection and assessment of the situation.
2. Necessary steps will be taken to initiate an emergency response, if warranted, and to stabilize the situation to the extent possible.
3. The MPCa may be contacted to determine if any additional steps are necessary to properly manage the impacts encountered. If required, a brief plan will be submitted to the MPCa Project Manager for review and approval to document the proper management of the impacted media.
4. The impacted media will be managed in accordance with the applicable MPCa-approved plan.

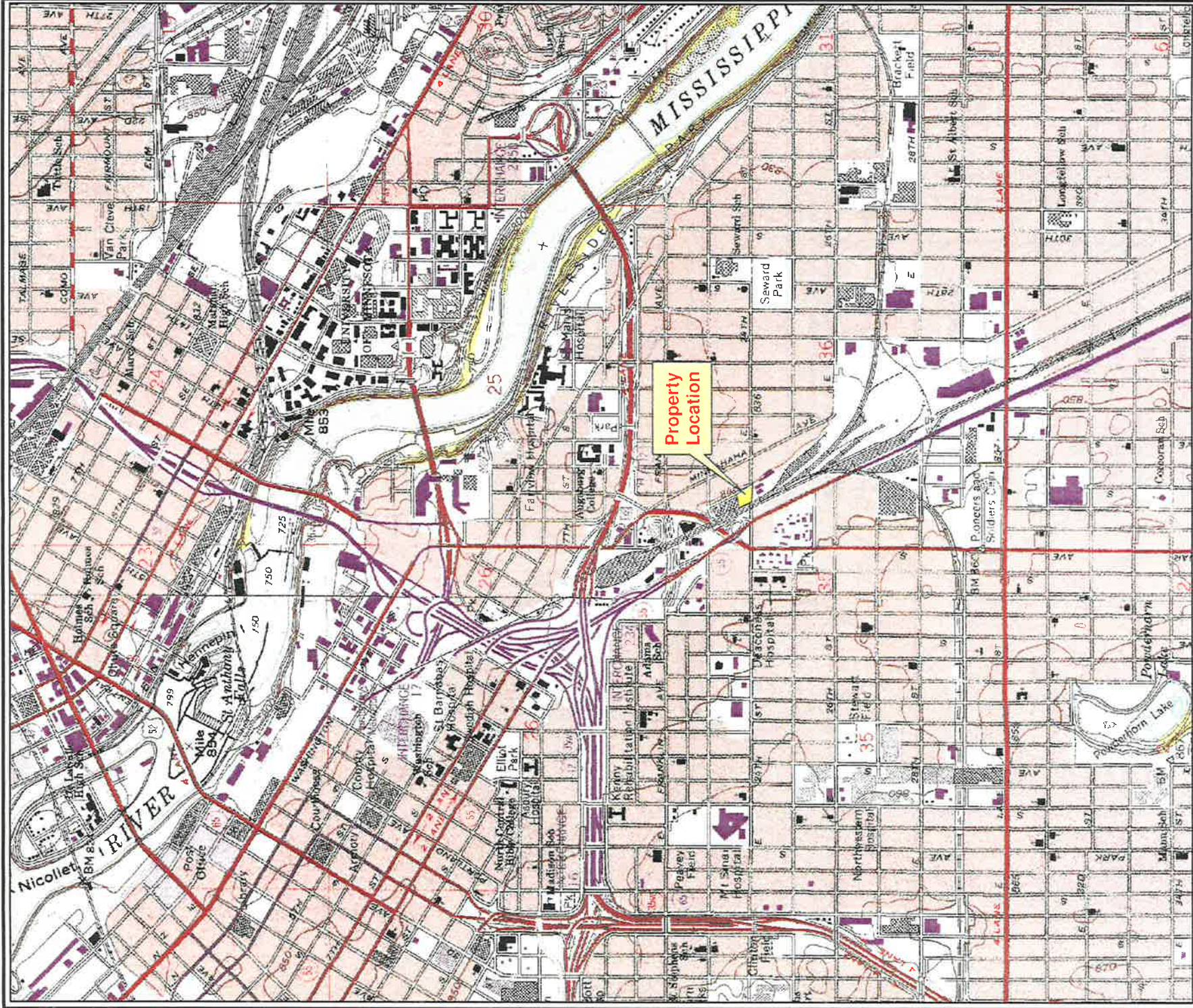
6.0 CONCLUSIONS

Upon completion of the response actions at the Property, a DRAP Implementation Report will be submitted to the MPCa VIC Program documenting that the remediation and monitoring was conducted in accordance with the approved DRAP. Upon review and approval by MPCa Petroleum Brownfields and VIC staff, the parties involved will seek the following assurances:

1. A No Further Action Determination Letter for soil and ground water impacts at the site.

2. A letter indicating all petroleum and/or non-petroleum impacted soils associated with areas of identified impacts and any new areas identified during development were managed appropriately and in accordance with the approved DRAP and MPCA PBP procedures.

W:\sa\6202576\RAP\DRAP Phase I PPL 3 30 09.doc



0 1,500 3,000 Feet 1:24,000
1 Inch = 2,000 Feet

www.liesch.com

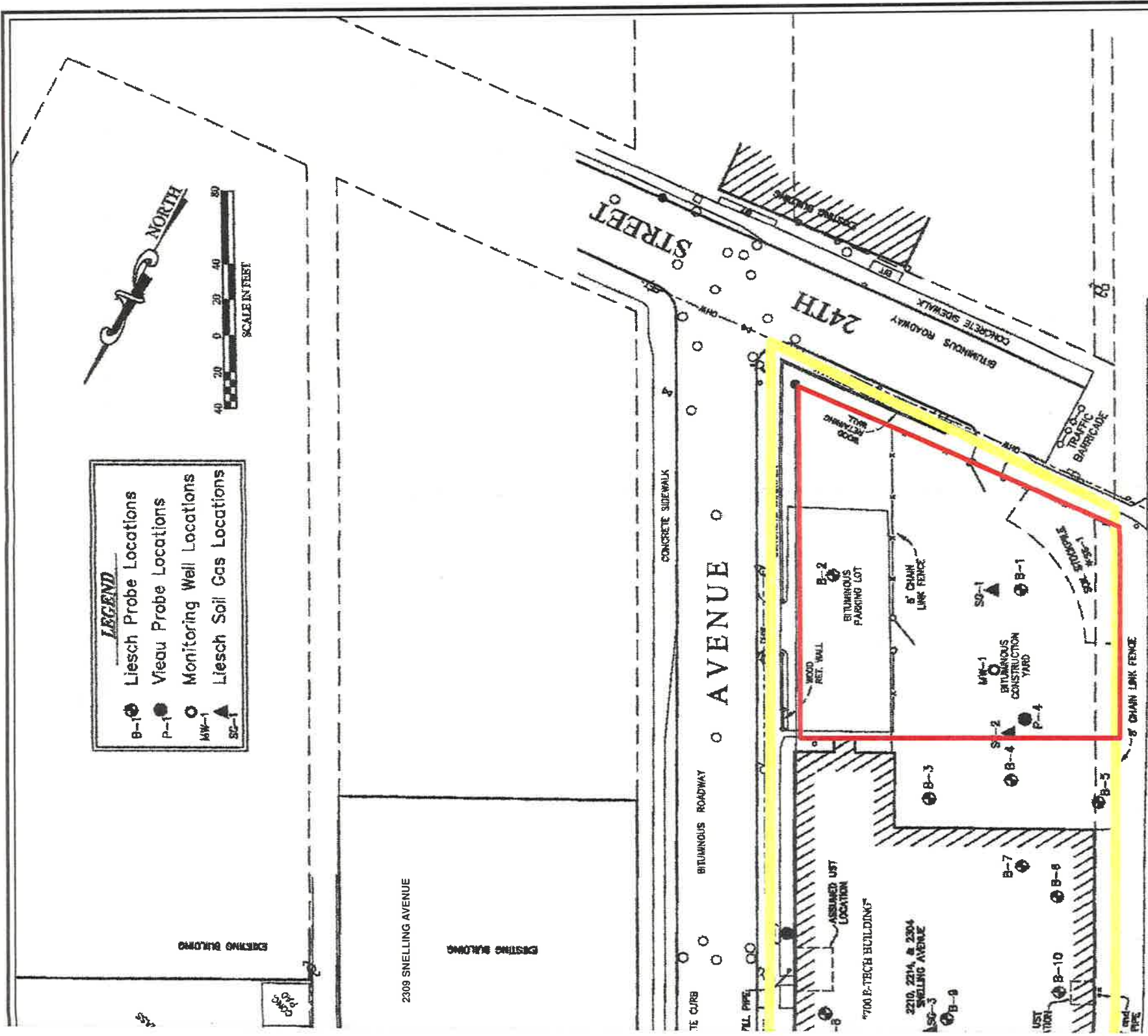
Phase I - PPL
2310 Snelling Avenue, Minneapolis, MN

Property Location

Figure 1

Mar 09

Minneapolis • Chicago • Los Angeles • Madison • Milwaukee • Phoenix
Hydrogeologists • Engineers • Environmental Scientists



www.liesch.com

Phase I - PPL
2310 Snelling Avenue, Minneapolis, MN

Property Layout with Historical Boring and Sampling Locations

Figure 2

Mar 09

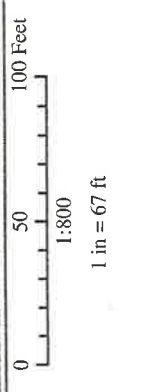
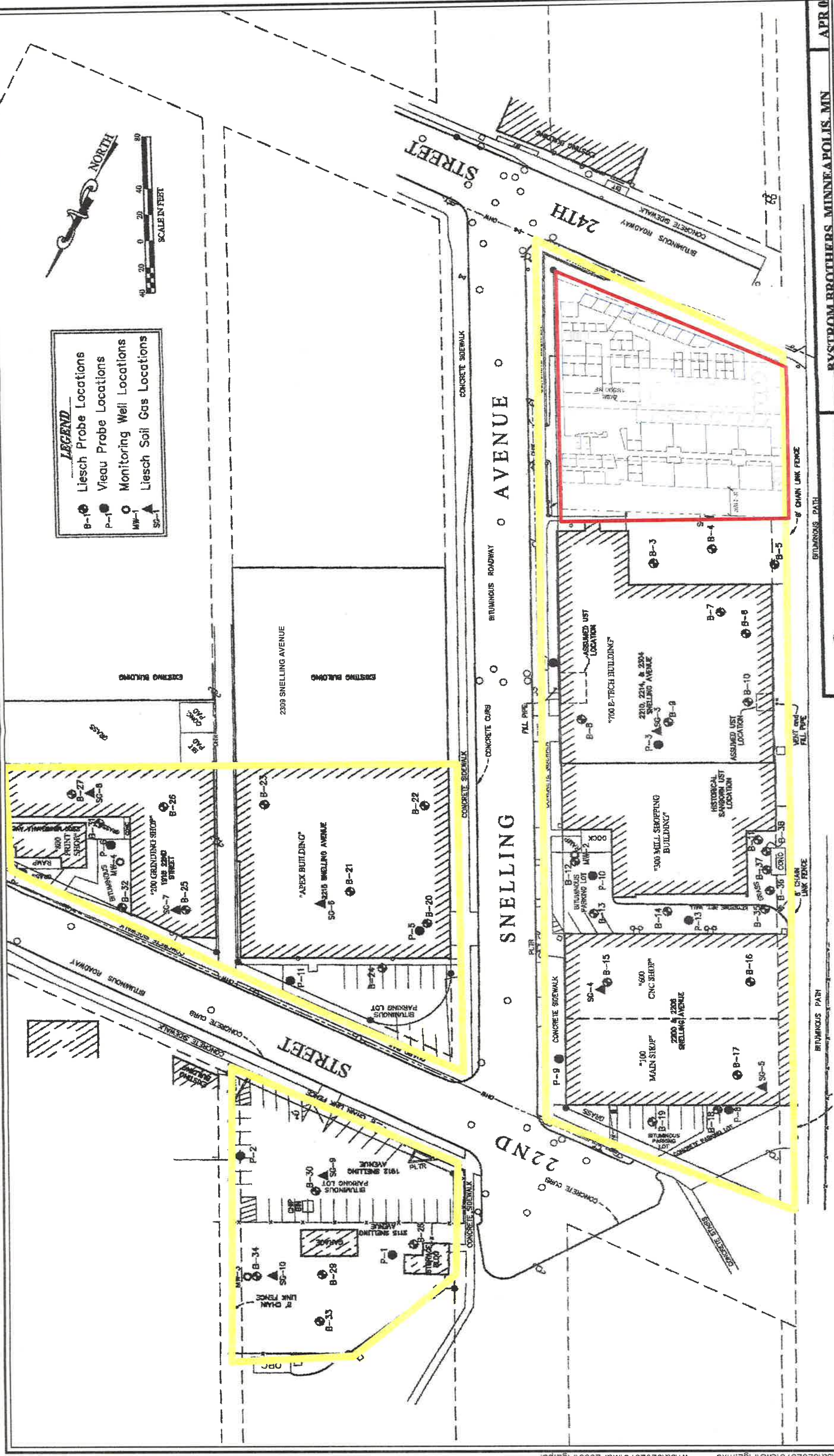
Minneapolis • Chicago • Los Angeles • Madison • Milwaukee • Phoenix
Hydrogeologists • Engineers • Environmental Scientists

LEGEND

- Liesch Probe Locations
- Vieu Probe Locations
- Monitoring Well Locations
- Liesch Soil Gas Locations

SCALE IN FEET

NORTH



- Phase I - PPL Boundary
- Bystrom Site Boundary

LIESCH
Hydrogeologists • Engineers • Environmental Scientists

Minneapolis • Chicago • Los Angeles • Madison • Milwaukee • Phoenix

www.liesch.com

BYSTROM BROTHERS MINNEAPOLIS, MN
Phase I - PPL

2310 Snelling Avenue, Minneapolis, MN

Redevelopment Concept Plan

Mar 09

Figure 3

Table 1
Summary of Soil Analytical Results
Bystrom Brothers
2200 Snelling Avenue
Minneapolis, Minnesota

Client Sample ID Collect Date	Parameter	Units	Regulatory Limits		B-1 (0-2") 9/26/2006	B-2 (2-4") 9/26/2006	B-3 (2-4") 9/26/2006	B-4 (0-2") 9/26/2006	B-5 (0-2") 9/26/2006	B-6 (0-2") 9/26/2006	B-7 (0-2") 9/27/2006	B-8 (4-6") 9/27/2006	B-9 (0-2") 9/27/2006	B-10 (14-16") 9/27/2006	B-11 (2-4") 10/3/2006	B-12 (0-2") 10/3/2006	B-13 (0-2") 9/29/2006	B-14 (2-4") 10/3/2006	B-15 (0-2") 9/29/2006	B-15 (6-8") 9/28/2006	B-16 (0-2") 9/29/2006	B-17 (0-2") 9/28/2006	B-18 (0-2") 10/2/2006
			Tier 1 SLV	Tier 2 SRV																			
Resource Conservation and Recovery Act (RCRA) Metals																							
Mercury	mg/kg	6	0.034	0.04	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Arsenic	mg/kg	15.1	5	3.6	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
Barium	mg/kg	842	1200	1400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
Cadmium	mg/kg	4.4	25	0.98	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
Chromium	mg/kg	9.2	NE	NE	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Lead	mg/kg	525	300	700	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	
Selenium	mg/kg	1.5	160	1300	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Silver	mg/kg	3.9	160	1300	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	<0.56	
Volatile Organic Compounds (VOCs) - detected compounds only																							
Acetone	mg/kg	0.7	340	1000	0.073	0.083	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	
Benzene	mg/kg	0.14	6	23	0.0013	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	
cis-1,2-Dichloroethene	mg/kg	0.27	11	33	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
trans-1,2-Dichloroethene	mg/kg	4.7	200	200	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Ethylbenzene	mg/kg	6.4	NE	NE	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
p-Isopropyltoluene	mg/kg	6.4	NE	NE	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
2-Butanone (MEK)	mg/kg	7.5	10	28	<0.0064	<0.0011	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	
Naphthalene	mg/kg	NE	30	53	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
n-Propylbenzene	mg/kg	NE	72	131	0.0028	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Tetrachloroethene	mg/kg	0.668	200	985	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
1,2,4-Trichlorobenzene	mg/kg	0.31	200	985	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
1,2,4-Trichloroethene	mg/kg	0.14	29	46	0.02	0.02	0.056	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
1,2,3-Trichloropropane	mg/kg	0.35	NE	NE	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
1,2,4-Trimethylbenzene	mg/kg	NE	8	25	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
1,2,3-Trimethylbenzene	mg/kg	NE	NE	NE	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
1,3,5-Trimethylbenzene	mg/kg	NE	3	10	<0.0013	<0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Xylenes, Total	mg/kg	45	45	130	<0.0039	<0.0034	<0.0031	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	
Wisconsin Diesel Range Organics (WDRO)																							
WDRO	mg/kg	NE	NE	81	25	760	110	19	28	160	8.2	2700	8.1	720	8.3	9.1	32	8.1	8.2	8.2	8.2	60	
Wisconsin Gasoline Range Organics (WGRO)																							
WGRO	mg/kg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
Semi-Volatile Organic Compounds (SVOCs) - detected compounds only																							
Acenaphthylene	mg/kg	50	1200	3260	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Acenaphthylene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Anthracene	mg/kg	942	7880	45400	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	7.7	0.38	<3.4	<0.37	<0.40	0.73	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzokjilanthrene	mg/kg	NE	NE	NE	7.7	0.57	<3.4	<0.37	<0.40	0.67	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	2.8	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	5.8	<0.37	<3.4	<0.37	<0.40	0.61	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	2	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Benzofluoranthene	mg/kg	NE	NE	NE	7.5	<0.37	<3.4	<0.37	<0.40	0.42	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Chrysene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	0.49	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
2,6-Dimethylbenzene	mg/kg	25	175	1080	<2.1	<0.37	<3.4	<0.37	<0.40	0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Fluoranthene	mg/kg	47	850	4120	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Fluoranthene	mg/kg	NE	NE	NE	<2.1	<0.37	<3.4	<0.37	<0.40	<0.38	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
Hexachlorocyclopentadiene	mg/kg	0.05	NE	NE	<2.1	<0.37	<3.4																