

PHASE I ENVIRONMENTAL SITE ASSESSMENT

for

Lester Park Redevelopment 1860 Lester River Rd Duluth, Minnesota 55804

BAY WEST PROJECT NO. J220163

June 2022

Prepared by:

Prepared for:

Bay West LLC 5 Empire Drive St. Paul, Minnesota 55103 Phone: 651-291-0456 Fax: 651-291-0099 City of Duluth 411 West First Street Duluth, Minnesota 55802 Phone: 218-730-5303 tbajda@duluthmn.gov



TABLE OF CONTENTS

EXE	CUTIVE	SUMMAR	Υ	
1.0	INTRO	DUCTION		1
	1.1	Purpose		1
	1.2	•		
	1.3	<u> </u>	nt Assumptions	
	1.4		ns and Exceptions	
	1.5		DS	
	1.6	User Reli	ance	4
2.0				
	2.1		ords	
	2.2		nental Liens	
	2.3		nd Use Limitations	
	2.4		ed Knowledge	
	2.5		nt Valuation Reduction for Environmental Issues	
2 0	2.6		ly Known or Reasonably Ascertainable Information	
3.0	3.1		CRIPTIONand Parcel Description	
	3.1		ling Area General Characteristics	
	3.2 3.3		Jse of the Property	
	3.3 3.4		on of Property Improvements	
	3.4 3.5		Jses of Adjoining Properties	
4.0				
4.0	4.1		Setting Sources	
	7.1	4.1.1	Topography	
		4.1.2	Geology	
		4.1.3	Hydrogeology	
		4.1.4	Hydrology	
		4.1.5	Other Physical Setting Sources	
	4.2	Standard	Environmental Records	
		4.2.1	Property	
		4.2.2	Adjoining Sites	
		4.2.3	Surrounding Area	9
		4.2.4	"Orphan" Facilities	9
		4.2.5	Local Environmental Records Sources	9
		4.2.6	Vapor Encroachment Screen	
	4.3	Historica	-Use Information	11
		4.3.1	Aerial Photographs	
		4.3.2	Historical Real Estate Maps	
		4.3.3	Property Tax Files	12
		4.3.4	Recorded Land Title Records	
		4.3.5	Historical USGS Topographic Quadrangles	12
		4.3.6	City Directories	13
		4.3.7	Local Government Records	
		4.3.8	Prior Reports	
5.0				
	5.1		logy and Limiting Conditions	
	5.2		face and Property Use Observations	
	5.3	Surface-	Nater Observations	15



		-
6.1		
INTER		
5.11	Pesticides and Herbicides	16
5.10	Wells	
5.9	Wastewater Discharges	15
5.8	Waste Disposal	
5.7	Polychlorinated Biphenyls (PCBs)	15
5.6	Petroleum Products Use, Storage, and Disposal	15
5.5	Hazardous Substance Use, Storage, and Disposal	15
5.4	Aboveground and Underground Storage Tanks (ASTs/USTs)	15
	5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 INTER 6.1 FINDIN	 5.5 Hazardous Substance Use, Storage, and Disposal 5.6 Petroleum Products Use, Storage, and Disposal 5.7 Polychlorinated Biphenyls (PCBs)

List of Appendices

- Appendix A Property Location and Property Maps
- Appendix B User Questionnaire
- Appendix C Regulatory Database Report
- Appendix D MPCA Files
- Appendix E Historical Aerial Photographs
- Appendix F Historical Real Estate Maps
- Appendix G Historical Topographic Maps
- Appendix H Historical City Directories
- Appendix I Property Photographic Log
- Appendix J Resumes



EXECUTIVE SUMMARY

Property Information:

Lester Park Redevelopment 1860 Lester River Rd Duluth, Minnesota St. Louis County

Property Access Contact:

Theresa Bajda 218-730-5303 tbajda@duluthmn.gov

Consultant Information:

Bay West LLC 5 Empire Drive St. Paul, Minnesota 55103 Telephone: 651-291-0456 Fax: 651-291-0099 Reconnaissance Date: April 29, 2022 Property Assessor and Environmental Professional: Erik Nimlos Senior Reviewer and Environmental Professional: Rick Van Allen

Client Information:

Ms. Theresa Bajda City of Duluth 411 West First Street, Room 160 Duluth, Minnesota 55802 Phone: 218-730-45303

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 part of 40 Code of Federal Regulations (CFR) 312. I have the specific qualifications based on education, training, and experience to assess a Property of the nature, history, and setting of the subject Property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Erik Nimlos, PG Environmental Professional

h W. VIII

Rick Van Allen, PG Environmental Professional



Bay West has performed a Phase I Environmental Property Assessment (Phase I ESA) in general conformance with the scope and limitations of *Standard Practice for Environmental Property Assessments: Phase I Environmental Property Assessment Process,* ASTM International Designation: E 1527-21 for the Lester Park Redevelopment located near 1860 Lester River Rd in Duluth, St. Louis County, Minnesota (the Property). Any exceptions to, or deletions from, this practice are described in **Section 1.5** of this report.

Based on review of the historical aerial photographs, historical maps, and city directories, the Property was historically undisturbed with the exception of a few utility line clearings until the late 1980s when portions were added onto the existing Lester Park Golf Course to the north. The onsite golf course continued operation until the late 2010s after which the golf fairways were left unmaintained. At present, the Property remains unimproved with the exception of asphalt-paved walkways associated with the former golf course. A homeless encampment was observed along the western edge of the Property and scattered non-hazardous waste materials – including four empty drums containing rainwater and food wrappers – were observed during the visual reconnaissance.

The surrounding area was historically vacant land to the west, the golf course to the north, roadway and railway to the east, and residences to the south. Additional nearby uses noted in historical city directories included a children's home, catering business, and American Legion Club location. With the exception of improvements to Highway 61 to the east and construction of an assisted living facility and medical clinic to the south, the surrounding area has remained similar in development and use since at least the 1930s through the present.

Bay West's assessment did not reveal any Recognized Environmental Conditions (RECs), Historical RECs (HRECs), Controlled RECs (CRECs), and/or Vapor Encroachment Concern (VECs) in connection with the Property.

With respect to environmental conditions at the Property, Bay West makes the following recommendation:

 Portions of the Property have been improved as a golf course for at least 30 years based on historical record review. As noted in the regulatory database review, the former operator – Lester Park Golf Course – was a licensed pesticide and herbicide applicator in order to maintain the grounds of the course. The legal application (i.e. in accordance with manufacturer's specifications and best practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Therefore, the User should take into consideration the historical use of the Property and the potential presence of various agricultural chemicals in the soil and groundwater when undertaking any site development activities.



1.0 INTRODUCTION

On April 25, 2022, Bay West was authorized by Ms. Theresa Bajda, City of Duluth Planner, to conduct a Phase I Environmental Property Assessment (ESA) of the Lester Park Redevelopment located near 1860 Lester River Rd in Duluth, St. Louis County, Minnesota, herein referred to as the Property (**Appendix A**: **Figure 1** and **Figure 2**).

1.1 Purpose

The purpose of this Phase I ESA was to evaluate the Property for indications of recognized environmental conditions (RECs) in connection with the Property and to assist in satisfying All Appropriate Inquiries (AAI) standards and practices. RECs are defined by ASTM Practice E 1527-21 as: "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a Property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include de minimis conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies (Section 1.1.1E 1527-21: ASTM International [ASTM]. 2013). A historical recognized environmental condition (HREC) is a past release of any hazardous substances or petroleum products that has occurred in connection with the subject Property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the subject Property to any required controls (Section 3.2.42 E 1527-21; ASTM 2013). A controlled recognized environmental condition (CREC) is a REC resulting from a past release of hazardous substances of petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (Section 3.2.18 E 1527-21; ASTM 2013).

This Phase I ESA is intended to satisfy one of the requirements for the innocent landowner defense, the contiguous Property exemption, and the bona fide prospective purchaser exemption to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability: that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the subject Property consistent with good customary practice," as defined in 42 U.S. Code Section 9601 (35)(B).

Per the User, the Phase I ESA is being conducted as part of due diligence associated with City of Duluth recreational use and potential redevelopment of the Property.

1.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E 1527-21, consistent with a level of care and skill ordinarily practiced by the environmental consulting professional(s) currently providing similar services under similar circumstances. Significant additions, deletions, or exceptions to ASTM Standard Practice E 1527-21 are noted below or in the corresponding sections of this report. The scope of this Phase I ESA included an assessment of the following:

- Physical setting characteristics of the Property through a review of referenced sources such as topographic maps and geologic, soils, and hydrologic reports;
- Usage of the Property, adjoining properties, and surrounding area through a review of referenced historical sources such as fire insurance maps, city directories, aerial photographs, and interviews;



- Observations and interviews regarding current Property usage and conditions including the use, treatment, storage, disposal, or generation of hazardous substances, petroleum products, hazardous wastes, non-hazardous solid wastes, and wastewater;
- Observations and interviews regarding usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties on the Property;
- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the Property; and
- Preparation of a written report that includes findings, opinions, conclusions, and supporting documentation.

The Standard Scope of the ASTM Practice E 1527-21 is not intended to provide a universal analysis of potential environmental risks and hazards. This assessment included no analysis of non-standard scope environmental risks and hazards unless otherwise listed above. Analysis of other non-standard scope issues by Bay West would require additional contractual arrangements.

1.3 Significant Assumptions

Any assumptions in this report were not considered as having significant impact on the determination of RECs associated with the Property.

1.4 Limitations and Exceptions

Bay West has prepared this Phase I ESA report using reasonable efforts to identify RECs associated with hazardous substances or petroleum products at the Property. Findings contained within this report are based on information collected from observations made on the day of the Property reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E 1527-21 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- Uncertainty Not Eliminated A Phase I ESA cannot eliminate uncertainty regarding the potential for RECs in connection with any Property.
- Not Exhaustive A Phase I ESA is not an exhaustive investigation of the Property and environmental conditions on such Property.
- Past Uses of the Property Phase I requirements only require review of standard historical sources at 5-year intervals. Therefore, past uses of the Property at less than 5-year intervals may not be discovered.

Users of this report may refer to ASTM Standard Practice E 1527-21 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above- or below-grade. Subsurface conditions at the time of the reconnaissance may differ from the conditions determined by surface observations, interviews, and reviews of historical sources. The most reliable method of assessing subsurface conditions is through intrusive techniques. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other Property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

PHASE I ENVIRONMENTAL SITE ASSESSMENT Lester Park Redevelopment Duluth, Minnesota



Bay West makes no representation or warranty that the past or current operations at the Property are, or have been, in compliance with all applicable federal, state, and local laws, regulations, and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, Bay West is not responsible for consequences or conditions arising from facts not fully disclosed to Bay West during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and is assumed to be correct and complete unless obviously contradicted by Bay West's observations or other credible referenced sources reviewed during the assessment. Bay West shall not be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

Bay West used reasonable efforts to identify indications of ASTs and USTs and ancillary equipment on the Property during the assessment. "Reasonable efforts" were limited to observation of accessible areas and review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, thick vegetative or tree cover.

The estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions, and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations, and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act, or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of Bay West.

Bay West is not a professional title insurance or land surveyor firm and makes no guarantee, expressed or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the Property in this report, represent a comprehensive definition or precise delineation of Property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The *Environmental Professional* Statement is intended to document Bay West's opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the Environmental Professional were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E 1527-21 and the scope of work for this assessment.

Per ASTM Standard Practice E 1527-21, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of RECs in connection with the Property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and

PHASE I ENVIRONMENTAL SITE ASSESSMENT Lester Park Redevelopment Duluth, Minnesota



Liability Act (CERCLA). Bay West makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules, or regulations.

In accordance with the ASTM Standard Practice E 1527-21, this report is presumed to be valid for a six-month period. If the report is older than six months, the following information must be updated for the report to be valid: (1) regulatory review, (2) Property visit, (3) interviews, (4) specialized knowledge, and (5) environmental liens search. Reports older than one year may not meet the ASTM Standard Practice 1527-21; therefore, the entire report must be updated to reflect current conditions and Property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

1.5 Data Gaps

No data gaps were identified during the Phase I ESA process, with the exception of the following:

- Historical resources were not readily available for 5-year-or-less intervals from the time of the first developed use of the Property. However, a substantial amount of historical resources was available and reviewed for the time periods of most concern at the Property. Therefore, the presence of time gaps does not impact Bay West's ability to render an opinion regarding potential RECs, HRECs, or CRECs.
- Bay West was not provided Property chain-of-title information by the User. ASTM1527-21
 requires that the user review certain title records to identify whether any environmental
 liens or activity and use limitations have been imposed on the site. The lack of title
 information is identified as data gap; however, this does not significantly impact Bay
 West's ability to render an opinion regarding potential RECs, HRECs, or CRECs.

1.6 User Reliance

This Phase I ESA report was prepared for the sole use of the City of Duluth, and its agents, representatives, successors and assigns. No other party should rely on the information contained herein without prior written consent of Bay West and the City of Duluth. With the consent of the City of Duluth, Bay West is available to work with other parties in developing probability estimates, given other parties' unique risk management concerns.

Reliance on this Phase I ESA report by parties other than the City of Duluth may result in reliance on assumptions whose extent and nature could distort the meaning and impact of the opinions given in this report. This distortion could result in misinterpretation of these opinions and unwise actions based on those misinterpretations. As such, no party, except the City of Duluth, should rely on opinions for the potential of hazardous materials to exist at the Property. The guidelines used to define hazardous substances and petroleum products were obtained from the ASTM Standard E1527-21. Any use by or distribution of this report to third parties, without the express written consent of Bay West and the City of Duluth, is at the sole risk and expense of such third party.



2.0 USER-PROVIDED INFORMATION

The "User" as defined by ASTM Practice E 1527-21, is the party seeking to use ASTM Practice E 1527-21 to complete an environmental site assessment and may include, without limitation, a potential purchaser, tenant, or owner of a Property, a lender, or a Property manager. The following information was provided by Ms. Theresa Bajda, City of Duluth Planner (the User). Copies of user-provided information referenced in the following sections are included as **Appendix B**.

2.1 Title Records

A chain of title includes a sequence of historical transfers of title to the Property. A chain-of-title search was not conducted as part of the scope of services for this assessment.

2.2 Environmental Liens

An environmental lien is a charge, security, or encumbrance, upon title to the Property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of environmental issues at the Property. The User were not aware of any information regarding environmental liens associated with the Property.

2.3 Activity and Use Limitations

Activity and Use Limitations (AULs) include, but are not limited to, engineering controls, land-use restrictions or institutional controls that are in place at the Property and/or have been filed or recorded in a registry under federal, tribal, state or local law. The User was not aware of any AULs on the Property.

2.4 Specialized Knowledge

Specialized environmental knowledge includes any information and/or experience related to the Property or adjoining properties including, but not limited to, any obvious indicators that point to the presence or likely presence of environmental issues at the Property. The User did not have specialized knowledge of environmental conditions at the Property.

2.5 Significant Valuation Reduction for Environmental Issues

Valuation reduction for environmental issues includes the relationship of the purchase price to the fair market value of the Property. The User was unaware of any significant valuation reduction based on environmental issues.

2.6 Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonable ascertainable information includes information about the Property that generally is known to the public within the community where the Property is located and can be easily sought and found from individuals familiar with the Property or from easily attainable public sources of information. The User was not aware of any additional environmental concerns in association with the Property.



3.0 PROPERTY DESCRIPTION

3.1 Location and Parcel Description

The Property is accessible from 1860 Lester River Rd in Duluth, St. Louis County, Minnesota (**Appendix A: Figure 2**); at present, the Property parcels do not have an assigned address. The Property is bound to the north by the former Lester Park Golf Course, Highway 61 to the east, East Superior Street to the south, and Lester River Road to the west. The approximate center of the Property is located at latitude 46.843844^o and longitude -92.000177^o. According to the Public Land Survey System, the Property is located in Section 4, Township 50 North, Range 13 West.

3.2 Surrounding Area General Characteristics

The surrounding area consists of residential, a clinic, and unimproved forestland. Specific adjacent site uses are further discussed in **Section 3.5**. The Property has a topographic slope to the southeast; the surrounding area is similarly sloped as the Property towards the southeast and Lake Superior.

3.3 Current Use of the Property

At the time of the assessment, the Property was vacant.

3.4 Description of Property Improvements

The following table provides general descriptions of the Property and improvements.

PROPERTY IMPROVEMENTS		
Size of Property (approximate)	38 acres	
General Topography of Property	Sloping to the southeast	
Adjoining and/or Access/Egress Roads	Entrance to the former golf course parking lot on north side of Property from Lester Park Road	
Paved or Concrete Areas (including parking)	Former golf course walkways between fairways	
Unimproved Areas	>99% of Property is either unmaintained golf sod or forest	
Landscaped Areas	Former golf course	
Surface Water	None	
Heating/Cooling	None	
Utilities (Water/Sewer/Electric/Gas)	None	
Current Occupancy Status	The Property is currently vacant	

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

North	Former Lester Park Golf Course (1860 Lester Park Road)
South	Lester River Medical Clinic (6351 E Superior St) and Diamond Willow advanced care assisted living (6353-6355 E Superior St)
East	Highway 61, followed by Duluth Sanitary District facility (6714 E Superior St) and Brighton Beach Park (6202 Congdon Blvd)
West	Lester River Road, followed by Lester Park (61 Lester River Rd)



4.0 RECORDS REVIEW

4.1 Physical Setting Sources

4.1.1 Topography

Based on the United States Geological Survey (USGS) *Duluth, MN* and *Lakewood, MN*, USGS 7.5-Minute Series topographic maps, dated 2022, the Property elevation ranges from approximately 670 to 740 feet above mean sea level (amsl). During the site reconnaissance, the Property was observed to generally slope towards the southeast. The surrounding area also had a general regional topographic gradient sloping to the southeast. A copy of the topographic map is included as **Appendix A: Figure 1**.

4.1.2 Geology

The unconsolidated sediments in the Property vicinity consist of clay and silty clay (Unit ID "bl") of the Pleistocene Barnum Formation (Dengler et al., 2017).

A majority of the Property is underlain by the Mesoproterozoic gabbroic-zone oxide olivine gabbro of the Duluth Complex formation, part of the Midcontinent Rift Intrusive Super-suite (Boerboom et al, 2017). Portions of the western edge of the Property are underlain by Icelandite (Unit ID "Mni") and undifferentiated basalt to basaltic andesite flows (Unit ID "Mnb") of the Keweenawan Supergroup.

The depth to bedrock ranges from scattered surface exposures to 110 feet below ground surface (bgs) in the surrounding area of the Property (Jirsa et al, 2010).

4.1.3 Hydrogeology

Regional groundwater flow direction is generally influenced by major hydrogeologic features such as nearby streams, lakes, wells, and/or wetlands. Surface and/or bedrock topography may also influence regional groundwater flow direction. According to published geologic information, the regional groundwater flow direction within the unconsolidated deposits in the Property vicinity is to the east-southeast towards the St. Louis River, located adjacent southeast of the Property.

For the purposes of this assessment, in assessing potential external environmental impacts, properties located to the west-northwest and northeast (upgradient) of the Property are of primary concern. Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations. According to published geologic information, groundwater is estimated to be approximately 0 to 50 feet below ground surface at the Property (Adams, 2016).

4.1.4 Hydrology

Based on observations made during the site reconnaissance, it appears that storm water on the Property either infiltrates unpaved onsite surfaces or drains on the surface and flows southeast of the Property towards Lake Superior.

4.1.5 Other Physical Setting Sources

Minnesota Well Index

The Minnesota Geological Survey (MGS) maintains the Minnesota Well Index (MWI), which is a limited database of water well records. The MWI was accessed through the Minnesota Department of Health (MDH) website. Not all private water wells are listed in that database. Our review of the MWI database revealed that no water supply wells were located at the Property; however, the MWI is limited and does not include well records submitted prior to the 1980s.



4.2 Standard Environmental Records

Bay West obtained regulatory information pertaining to the Property and surrounding area from Envirosite Corporation (Envirosite). The Envirosite report is a compilation of records of facilities that are included on current federal and state environmental regulatory databases. The databases were searched based on the specified minimum search distances from the Property as defined by ASTM Practice E 1527-21. The Envirosite report also includes a description, source reference, date of acquisition, and the specified approximate minimum search distance criteria for each database and list.

Bay West also reviewed the "unmappable" (also referred to as "orphan" facilities) within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence but are potentially in the general area of the Property based on the partial street address, city, or zip code. Any unmappable site that was identified by Bay West as a being within the approximate minimum search distance from the Property based on the Property reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report is provided on the enclosed CD as **Appendix C**.

The following is a summary of the Envirosite report map findings.

4.2.1 Property

No listings reported to be located at the Property were available in the Envirosite report.

4.2.2 Adjoining Sites

The following sites of potential environmental concern adjoining the Property were listed in the Envirosite report:

 Lester River Medical Clinic: Located at 6351 Superior St, approximately 150 feet southwest (down-gradient) of the Property, this facility was listed in the Facility Registry System (FRS) and MN Hazardous Waste Generator (HWG – MN) databases.

The facility is listed as a minimal quantity generator of pharmaceutical wastes, with generated waste amounts recorded between 5 to 10 pounds annually. No violations or releases have been reported with respect to this facility's hazardous waste generator status. Based on this compliance history, site activity, and topographical gradient, this facility is not considered to represent a REC for the Property.

 Lester Park Golf Course: Located at 1860 Lester River Road, approximately 2,100 feet north (cross-gradient) of the Property, was listed in the RCRA Non-Generator/No Longer Regulated (RCRA_NONGEN), Enforcement Compliance History (ECHO), MN Aboveground Storage Tank (AST – MN), MN Agriculture License (AG_LICENSES – MN & MDA LIC – MN), EPA Underground Storage Tank (EPA UST), MN UST (UST – MN), EPA Leaking UST (EPA LUST), MN LUST (LUST – MN), MN Hazardous Waste Manifest (MANIFEST – MN), and MN What's In My Neighborhood (WIMN – MN) databases.

The facility was registered with the Minnesota Department of Agriculture (MDA) as a licensed non-commercial pesticide applicator. No letters of warning, violations, or spills were reported with respect to the facility's agricultural licensed activities.

The facility was formerly associated with two single-walled steel USTs registered under MPCA ID#TS0005358, as summarized in the table below:

Bay West

Tank Number	Туре	Material	Capacity (gallons)	Status	Product
1	AST	Carbon steel	2,000	Active	Gas Blends (E1-E49)
2	AST	Carbon steel	2,000	Active	Diesel Fuel
001	UST	Bare Steel	350	Removed (04/24/1990)	Gasoline
002	UST	Bare Steel	265	Removed (04/24/1990)	Gasoline

During removal of Tank 001, a previously unregistered tank of unknown size or origin (002) was discovered and found to be associated with considerable subsurface petroleum contamination. A spill was reported at the time and the facility was assigned Leak Site ID #2536. To address the contamination, approximately 400 cubic yards of soil were removed from the facility and brought to an offsite facility for land application treatment. Endpoint sampling following excavation in June 1990 and subsequent investigation soil samples collected between 1994 and 1996 did not detect petroleum contamination at concentrations above applicable state soil action levels. Elevated concentrations of diesel-range organics (DRO), gasoline-range organics (GRO), and petroleum volatile organic compounds (PVOCs) were detected in one of five onsite groundwater monitoring wells (MW-2) between 1994 and 1997, though down-gradient monitoring points did not detect DRO, GRO, or PVOCs above state groundwater action levels. Based on the lack of receptors within 500 feet of the release, a decreasing trend for petroleum contaminants detected in MW-2, and lack of identified contamination in down-gradient monitoring points, the leak site was closed on July 8, 1998.

The remaining database entries indicate that the facility was a licensed pesticide applicator; a former generator of petroleum naphtha/combustible liquid wastes with no violations reported against their hazardous waste generator status; and the location of a de minimis surface spill of hydraulic oil that occurred and was remediated in 2016.

Based on the regulatory status, distance, and topographic gradient, the activities at this facility are not considered to represent RECs for the Property.

4.2.3 Surrounding Area

Based on factors that include regulatory status, distance from the Property, and/or location relative to the regional groundwater flow direction, as referenced in **Section 4.1.3**, no additional facilities were identified in the Envirosite report that warrant further consideration as potential listings of environmental concern, with the exception of sites discussed below in **Section 4.2.6**.

4.2.4 <u>"Orphan" Facilities</u>

The Envirosite report identified one "orphan" facilities (listed under the same name) which, because of poor or inadequate address information, could not be mapped by Envirosite. Using the information contained in the Envirosite report about this orphan site and on-line mapping resources, this site was determined to not be a REC based on the site distance and location from the Property.

4.2.5 Local Environmental Records Sources

Bay West accessed MPCA's "What's In My Neighborhood" web page for information regarding the potential for the Property, adjoining properties, or surrounding properties to be of environmental concern that were not identified in the Envirosite report. No additional facilities not already identified in the Envirosite report were noted on the state regulatory web pages we



accessed. Requested MPCA files reviewed for sites identified by the Envirosite regulatory database report are included in **Appendix D**.

4.2.6 Vapor Encroachment Screen

Bay West completed an initial vapor encroachment screen to determine if a vapor encroachment concern (VEC) exists in the subsurface at the Property from hazardous substances, petroleum, and petroleum products that can include volatile organic compounds (VOCs), semi-VOCs (SVOCs), and inorganic volatile compounds. The Tier 1 non-invasive vapor encroachment screen was performed for the chemicals of concern and the approximate recommended minimum search distances included in ASTM E 2600-15 "Standard Guide for Vapor Encroachment Screening on Properties Involved in Real Estate Transactions." The following minimum search distances are outlined in ASTM E 2600-15 (ASTM, 2015).

Standard Environmental Record Sources (where available)	Chemicals of Concern	Petroleum Hydrocarbon Chemicals of Concern
Federal NPL	0.33	0.1
Federal CERCLIS	0.33	0.1
Federal Resource Conservation and Recovery Act (RCRA) CORRACTS	0.33	0.1
Federal RCRA non-CORRACTS TSD	0.33	0.1
Federal RCRA Generators	Subject Property Only	Subject Property Only
Federal Institutional Control/Engineering Control	Subject Property Only	Subject Property Only
Federal ERNS	Subject Property Only	Subject Property Only
State and Tribal-equivalent NPL	0.33	0.1
State and Tribal-equivalent CERCLIS	0.33	0.1
State and Tribal Landfill or Solid Waste Disposal Properties	0.33	0.1
State and Tribal LUST	0.33	0.1
State and Tribal UST	Subject Property Only	Subject Property Only
State and Tribal Institutional Control/Engineering Control	Subject Property Only	Subject Property Only
State and Tribal Voluntary Cleanup	0.33	0.1
State and Tribal Brownfield	0.33	0.1

Area of Concern Approximate Minimum Search Distances Surrounding the Subject Property (miles)



Vapor intrusion involves the migration of volatile chemicals from the subsurface into overlying buildings. These volatile organic vapors can pose health and safety risks to building occupants. MPCA Guidance Documents c-rem3-01 and c-s4-06 describe the recommended procedures for evaluating vapor intrusion risk for buildings near petroleum and other volatile chemical releases. In general, the MPCA recommends collecting soil-gas samples between the source area and all buildings within 100 feet of a petroleum or volatile chemical release.

Subject Property

No listings were identified to represent a VEC for the Property.

Adjoining or surrounding Properties

No adjoining or surrounding properties are considered to represent VECs for the Property.

4.3 Historical-Use Information

The objective of the historical-use information review was to develop a history of the previous uses of the Property and surrounding area, to help evaluate the likelihood of past uses having led to recognized environmental conditions in connection with the Property. Bay West consulted only those historical sources that were readily available, practically reviewable, and likely to be useful to develop a history of previous uses of the Property and surrounding area within the time and cost constraints of this Phase I ESA.

4.3.1 Aerial Photographs

Bay West retained Envirosite to provide aerial photographs for the Property and surrounding area. Bay West reviewed aerial photographs of the Property dated between 1939 and 2019 (all having the scale of 1" =500' or 1"=1,000'). The purpose of the review was to identify visible indications of land use at the Property and immediate vicinity that may indicate a potential environmental concern. Copies of aerial photographs obtained are provided as **Appendix E**. The following are descriptions and interpretations from the aerial photograph review:

Aerial Photograph Summary

Years	Comments	
1939 – 1961	5 5	
1972 – 1986	Property: The Property appears similar to previous years Surrounding Area: The surrounding area appears similar to previous years, with the exception of construction of an expanded Highway 61 to the east beyond East Superior Street.	
1989 – 2008	 Property: The Property appears as golf course fairways and select undisturbed area woodland, extending from the north-adjoining Lester Park Golf Course. Surrounding Area: The surrounding area appears similar to previous years. 	
2010 – 2019	Property: The Property appears similar to previous years. Surrounding Area: The surrounding area appears similar to previous years, with the exception of construction of two large buildings south-adjoining the Property between 2010 and 2013.	



Based on review of the aerial photographs, it appears that the Property was historically unimproved until the late 1980s when it became incorporated into the existing north-adjoining Lester Park Golf Course. Surrounding land use remained consistent historically with the exception of roadway improvements in the 1970s and construction of the present day assisted care and clinic buildings to the south. Evidence of RECs in association with the Property were not identified during review of the aerial photographs.

4.3.2 Historical Real Estate Maps

Bay West retained Envirosite to provide historical real estate maps, including Sanborn fire insurance maps and Minnesota Real Estate Atlas maps for the Property and surrounding area. Fire insurance maps are produced by private fire insurance map companies and indicate uses of Property at specified dates. The information noted on the maps commonly includes uses of individual structures, locations of fuel and/or chemical storage tanks, and storage of other potentially toxic substances.

Sanborn fire insurance maps were not available for the Property, though surrounding area maps were provided for 1955 and 1963. The areas displayed on the maps are located to the southwest (i.e. down-gradient of the Property) and of sufficient distance to the Property to not displace evidence of potential RECs in association with the Property.

A real estate atlas dated 1902 displayed future surveyed streets and lots as part of the Lester Park Fourth Division, though no structures were depicted within the Property. The remaining Real Estate Atlas maps provided from 1924 did not show improvements to the Property with the exception of proposed roadway along the southeastern edge of Lester Park 4th Division.

Copies of the historical real estate maps are attached in Appendix F.

4.3.3 Property Tax Files

Bay West reviewed available tax files regarding the Property online through the St. Louis County website. The Property includes thirteen parcels owned by the City of Duluth that include the following: 010-1410-00110, 010-1410-00120, 010-2860-03030, 010-2860-02670, 010-2860-02710, 010-2860-01480, 010-2860-01710, 010-2860-01480, 010-2860-01690, 010-2860-01680, 010-2860-02390, 010-2860-01720 and 010-2860-02910.

Bay West did not identify any additional RECs for the Property from review of the Property Tax Files.

4.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not included in the scope of this assessment.

4.3.5 Historical USGS Topographic Quadrangles

Bay West reviewed available historical *Duluth, MN* and *Lakewood, MN* USGS Topographic Quadrangles dated 1895, 1953 (7.5-minute series) and 1953, 1969, 1975, 1993, 2010, 2013, 2016, 2019, and 2022 (15-minute series) as provided by Envirosite, for information regarding past uses of the Property. Copies of the topographic maps reviewed are included in **Appendix G**. The following are descriptions and interpretations from the historical topographic map review:

Year	Comments
1895	Property: The Property appeared as vacant with the exception of proposed roadways depicted along East Superior Street. Surrounding Area: The surrounding area appears as roadway and railroad track to the south, roadway to the west, and vacant land to the north. Land to the east of the Property is not depicted on the 1895 map.

PHASE I ENVIRONMENTAL SITE ASSESSMENT Lester Park Redevelopment



Duluth, Minnesota

Year	Comments
1953, 1969, 1975, 1993	Property: The Property appears as vacant forested land, with a small clearing depicted in the northwest corner. Forest cover appears reduced on the eastern portion of the Property in 1993, consistent with golf fairways as interpreted by shape and context. Surrounding Area: A golf course adjoins the Property to the north. Forested vacant land,
	followed by small structures and roadway s located south of the Property. West of the Property is Lester River Road and Lester River, followed by additional vacant forestland. Land east of the Property appears as roadway, followed by vacant forested land.
2010, 2013, 2016, 2019, 2022	Property: The Property appears as vacant land. Forest cover appears minimal as depicted in each map except for 2010, which does not depict vegetation.
	Surrounding Area: Lester Park Municipal Golf Course is indicated on the 2010 and 2013 maps to the north but absent from later maps. With the exception of previously-existing roadway and railroad to the south and east, no other structures are depicted on the adjoining properties.

Based on the review of historic topographic maps, the Property and surrounding area appeared similar to the aerial photographs. Indications of RECs in association with the Property were not identified during review of the historical USGS Topographic Quadrangle maps.

4.3.6 City Directories

Bay West retained Envirosite to provide city directories for W Michigan Street (1942, 1946, 1964, 1969, 1974, 1976, 1979, 1984, 1989, 1992, 1995, 2000, 2005, 2010, 2014 and 2017). Copies of the city directories are included in **Appendix H**.

City directory listings for the Property were not available. The Property reference street – Lester River Road – was not listed in the city directories between 1902 and 1960. Regular (i.e. site-specific) street address numbers were not available for Lester River Road prior to 1989. The following is a summary of the city directory listings for Property and the surrounding area:

Year	Comments
1960	Property: No listings available Surrounding Area: Lester River Road – Lester Park Golf Club, Coffee Time Catering Service, Champion Children's Home, residential 6245 – 6815 E Superior St – residential
1964	Property: No listings available Surrounding Area: Lester River Road - Lester Park Municipal Golf Course, Lester Park Golf Club Lunch Room, Hilltop House Catering Service, residential 6245 – 6815 E Superior St – residential
1968	Property: No listings available Surrounding Area: Lester River Road – Lakeview American Legion Club, Champion Children's Home, Lester Park Municipal Golf Course, Lester Park Golf Club Lunch Room, Hilltop Catering Service, residential 6245 – 6815 E Superior St – residential
1973 - 1983	Property: No listings available Surrounding Area: Lester River Road – Lakeview American Legion Club No 342, Lester Park Municipal Golf Course, Lester Park Golf Club Lunch Room, residential 6245 – 6815 E Superior St – residential
1988	Property : No listings available Surrounding Area : 1860 Lester River Road – Lester Park Municipal Golf Course, Lester Park Golf Club Lunch Room, Roy Alexander 6245 – 6815 E Superior St – residential
1993	Property: No listings available

PHASE I ENVIRONMENTAL SITE ASSESSMENT



Lester Park Redevelopment Duluth. Minnesota

Year	Comments
Ical	Surrounding Area: 1860 Lester River Road – Lester Park Municipal Golf Course, Lester Park
	Golf Club Lunch Room, vacant.
	1821 Lester River Road – Lester Park Nature Trail
	342 Lester River Road – Lakeview American Legion Club
	1877 Lester River Road – residential
	6245 – 6304 E Superior St –residential
	6809 E Superior St – State of MN storage
1998	Property: No listings available
	Surrounding Area: 1860 Lester River Road – residential
	6300-6500 E Superior St – residential
2001	Property: No listings available
	Surrounding Area: 1860 Lester River Road – Lester Park Golf Club
	6300-6500 E Superior St – residential
2006 -	Property: No listings available
2010	Surrounding Area: 1860 Lester River Road – Lester Park Golf Club, residential, Men's 18
	Hole Golf
	6300-6500 E Superior St – residential
2015	Property: No listings available
	Surrounding Area: 1860 Lester River Road – Lester Park Golf Club, Men's 18 Hole Golf
	6300-6500 E Superior St – residential
2018	Property: No listings available
	Surrounding Area: 1860 Lester River Road – Men's 18 Hole Golf
	6300-6500 E Superior St – residential

The Property did not appear in city directories from the records searched. Surrounding properties consisted of the Lester Park Golf Club, a catering company, an American Legion Club, a children's home, and various residences. Based on this information, no RECs were identified for the Property associated with the city directory review.

4.3.7 Local Government Records

Bay West contacted the following individuals to obtain knowledge or historical and current landuse information regarding the Property:

- Kim Seguin, Information Specialist, St. Louis County (County Representative for Environmental Services Department)
- Dawn Anderson, Executive Assistant, City of Duluth Clerk's Office
- Samantha Singer, Executive Assistant, City of Duluth Fire Department

Responses to information request for local government records are summarized in Section 6.1.

4.3.8 Prior Reports

Prior reports were not available nor provided for the Property.



5.0 PROPERTY RECONNAISSANCE

The Property reconnaissance was conducted on April 29, 2022 by Erik Nimlos, Bay West Environmental Professional. At the time of the Property reconnaissance, the weather was overcast with light rain and approximately 40 degrees Fahrenheit. The following is a summary of visual and/or physical observations of the Property on the day of the Property visit. Photographs are included in **Appendix I**.

5.1 Methodology and Limiting Conditions

The Property reconnaissance consisted of a visual inspection in accordance with the requirements set forth in 40 CFR Part 312 of the Property and observations of the perimeter area of the Property to determine the presence of objects of environmental concern.

5.2 Land-Surface and Property Use Observations

The Property was vacant, as evidenced by the lack of staffing or permanent infrastructure with the exception of various asphalt-paved paths observed along the former fairways of the Lester Park Golf Course. The Property itself was either undeveloped forested land or unmaintained golf fairway. Transitory dwellings were observed on the western side of the Property, appearing as a homeless encampment with approximately five pitched tents.

5.3 Surface-Water Observations

Surface water features were not observed on the Property.

5.4 Aboveground and Underground Storage Tanks (ASTs/USTs)

No evidence of Aboveground or Underground Storage Tanks (ASTs/USTs) was observed at the time of Property reconnaissance.

5.5 Hazardous Substance Use, Storage, and Disposal

No evidence of hazardous substance use, storage or disposal was observed at the time of Property reconnaissance.

5.6 Petroleum Products Use, Storage, and Disposal

No evidence of petroleum product use, storage or disposal were observed at the time of Property reconnaissance.

5.7 Polychlorinated Biphenyls (PCBs)

Electrical transformers, fluorescent light ballasts, window caulking, or other historical sources of PCBs were not observed at the time of the Property reconnaissance.

5.8 Waste Disposal

Four 55-gallon steel drums containing rainwater or empty food/beverage containers were observed along the fairway on the western side of the Property. No visual/olfactory evidence of hazardous waste was observed on or in the vicinity of the drums at the time of the Property reconnaissance.

5.9 Wastewater Discharges

No wastewater discharges were observed on the Property at the time of the reconnaissance.

5.10 Wells

No wells were observed on the Property during Property reconnaissance.



5.11 Pesticides and Herbicides

Bay West did not observe evidence of use or storage of pesticides or herbicides on the Property at the time of the reconnaissance, with the exception of the presence of historical golf course operations suggesting their historical use.

5.12 Surrounding Property Review

Bay West conducted a visual survey of the adjoining facilities from the Property and public vantage points such as streets.

North of the Property is the remainder of the former Lester Park Golf Course, including a clubhouse, parking lot, and storage shed. East of the Property is Highway 61 and E Superior Street to the southeast. Southwest of the Property is an assisted living care facility and medical clinic. West of the Property is Lester River Road, followed by Lester River and parkland.

Evidence of RECs in association with the Property were not observed in the surrounding area.



6.0 INTERVIEWS

The objective of conducting interviews is to obtain information concerning RECs in connection with the Property. This information was obtained verbally and by email, as indicated below. Interviewees were cooperative and forthcoming with information, unless otherwise specified. Contact information for all individuals interviewed is included in table below:

Role	Name/Contact	Title/Company	Years Assoc. with Property	Contact Type
User	Theresa Bajda 218-730-5303 tbajda@duluthmn.gov	Planner II / City of Duluth	Unknown	Phone/Email
Local Government City Hall	Dawn Anderson dmanderson@duluthmn.gov	Executive Assistant/City of Duluth	Unknown	Email
Local Government Fire Department	Samantha Singer ssinger@duluthmn.gov	Executive Assistant/City of Duluth	Unknown	Email
Local Government Environmental Services	Kimberly Seguin 218-725-5200 seguink@stlouiscountymn.gov	Information Specialist II/St. Louis County	Unknown	Email

6.1 Interview with User

Bay West interviewed Ms. Theresa Bajda, a representative for the City of Duluth and the User, for information regarding the Property use, history, and potential environmental concerns at the Property. Ms. Bajda was not aware of any environmental concerns in association with the Property.

6.2 Interview with Local Government Officials

Ms. Anderson, a representative of the City of Duluth Clerk's Office, was not aware of any other environmental concerns associated with the Property.

Ms. Singer, a representative of the City of Duluth Fire Department was not aware of any other environmental concerns associated with the Property.

At the issuance of this report, a response is pending from St. Louis County Department of Environmental Services.



7.0 FINDINGS AND OPINIONS

Bay West has identified the following known or suspect environmental conditions in connection with the Property during this Phase I ESA:

- Based on review of the historical aerial photographs, historical maps, and city directories, the Property was historically undisturbed with the exception of a few utility line clearings until the late 1980s when portions were added onto the existing Lester Park Golf Course to the north. The onsite golf course continued operation until the late 2010s after which the golf fairways were left unmaintained. Review of the historical records did not identify RECs in association with the Property.
- At present, the Property remains unimproved with the exception of asphalt-paved walkways associated with the former golf course. A homeless encampment was observed along the western edge of the Property and scattered non-hazardous waste materials – including four empty drums containing rainwater and food wrappers – were observed during the visual reconnaissance. Evidence of RECs were not observed at the time of the Property reconnaissance.
- Bay West identified two environmentally regulated facilities adjoining the Property, Lester River Medical Clinic and Lester Park Golf Course. Lester River Medical Clinic, located approximately 150 feet down-gradient of the Property, is a minimal quantity hazardous waste generator with no recorded violations against their hazardous waste status. Lester Park Golf Course operated under a pesticide applicator license with the MDA in order to maintain the golf course fairways and grounds; no issues were identified with the facility's agricultural licensed activities. A release of petroleum from an underground storage tank (becoming Leak Site #2536) was reported at the Lester Park Golf Course maintenance garage – located 2,100 feet cross-gradient of the Property – in 1990. Following additional investigation and removal of approximately 400 cubic yards of contaminated soil, the Leak Site was closed by the MPCA in 1998. These facilities are not considered to represent RECs for the Property.
- The surrounding area was historically vacant land to the west, the golf course to the north, roadway and railway to the east, and residences to the south. Additional nearby uses noted in historical city directories included a children's home, catering business, and American Legion Club location. With the exception of improvements to Highway 61 to the east and construction of an assisted living facility and medical clinic to the south, the surrounding area has remained similar in development and use since at least the 1930s through the present. Indications of RECs in association with the Property were not identified on the surrounding properties.



8.0 CONCLUSIONS

Bay West has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 of the Lester Park Redevelopment, located on 1860 Lester River Rd in Duluth, St. Louis County, Minnesota. Any exceptions to, or deletions from, this practice are described in **Section 1.5** of this report. Bay West's assessment did not reveal any RECs, CRECs, HRECs, or VECs in association with the Property. With respect to environmental conditions at the Property, Bay West makes the following recommendation:

 Portions of the Property have been improved as a golf course for at least 30 years based on historical record review. As noted in the regulatory database review, the former operator – Lester Park Golf Course – was a licensed pesticide and herbicide applicator in order to maintain the grounds of the course. The legal application (i.e. in accordance with manufacturer's specifications and best practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Therefore, the User should take into consideration the historical use of the Property and the potential presence of various agricultural chemicals in the soil and groundwater when undertaking any site development activities.



9.0 **REFERENCES**

Adams, Roberta, 2016. Depth to Water Table, Minnesota Geological Survey (MGS) Minnesota Hydrogeology Atlas Series Atlas HG-03, Plate 2 of 2. Retrieved May 2022 from:

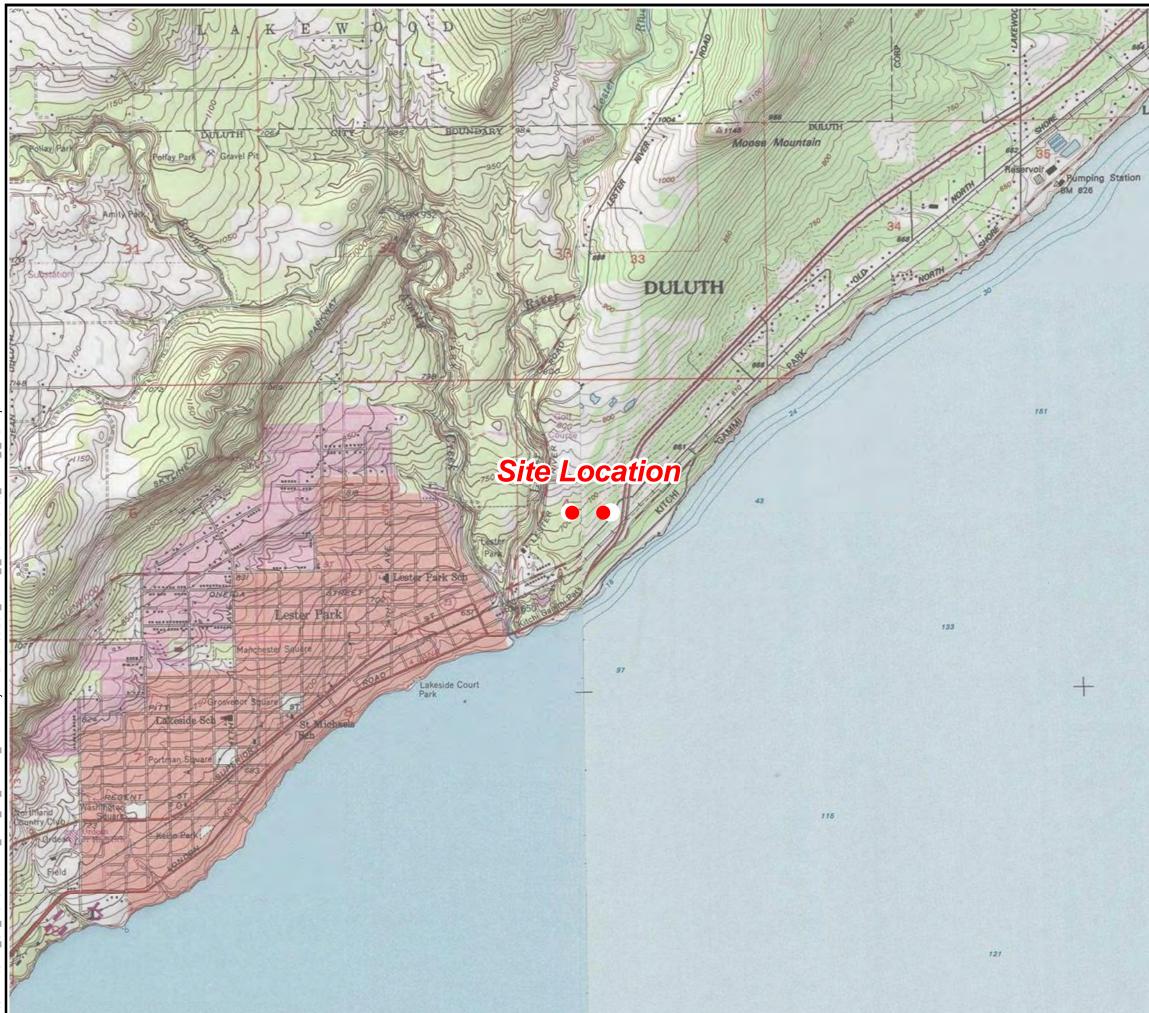
https://files.dnr.state.mn.us/waters/groundwater_section/mapping/mha/hg03_plate2.pdf

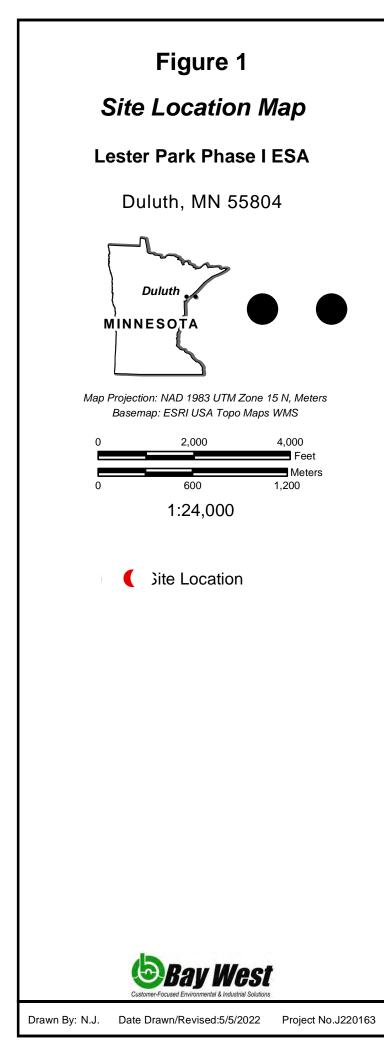
- American Society for Testing and Materials (ASTM), 2015. Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions E2600-15.
- ASTM, 2021. Standard Practice for Environmental Property Assessments: Phase I Environmental Property Assessment Process E 1527-21.
- Boerboom, Terren J., Amy L. Radakovich, Mark A. Jirsa, Val W. Chandler, 2017. Bedrock Geologic Map of the Southeastern Arrowhead Area, Lake and St. Louis Counties, Northeastern Minnesota. MGS Open File Report (OFR) 2016-04. Retrieved from: <u>https://conservancy.umn.edu/handle/11299/183258</u>
- Dengler, Elizabeth L., Kaleb G. Wagner, Gary N. Meyer, 2017. Preliminary Surficial Geologic Map of the Southeastern Arrowhead Area, Lake and St. Louis Counties, Northeastern Minnesota. MGS OFR 2016-04. Retrieved from: <u>https://conservancy.umn.edu/handle/11299/183258</u>
- Jirsa, Mark A., (2010). Preliminary Bedrock Geologic Map of Minnesota. MGS Open File Report OFR10-02. Web Application Updated February 27, 2021. Retrieved May 2022 from <u>https://mngs-umn.opendata.arcgis.com/apps/UMN::bedrock-topography-vs-depth-tobedrock-/explore</u>
- Minnesota Pollution Control Agency (MPCA), 2022. "What's in My Neighborhood." Retrieved May 2022 from: <u>https://www.pca.state.mn.us/data/whats-my-neighborhood</u>
- Minnesota Department of Health (MDH), 2022. County Well Index. Retrieved May 2022 from: http://www.health.state.mn.us/divs/eh/cwi/
- St. Louis County, 2022. Online GIS viewer. Retrieved May 2022 from: https://gis.stlouiscountymn.gov/landexplorer/

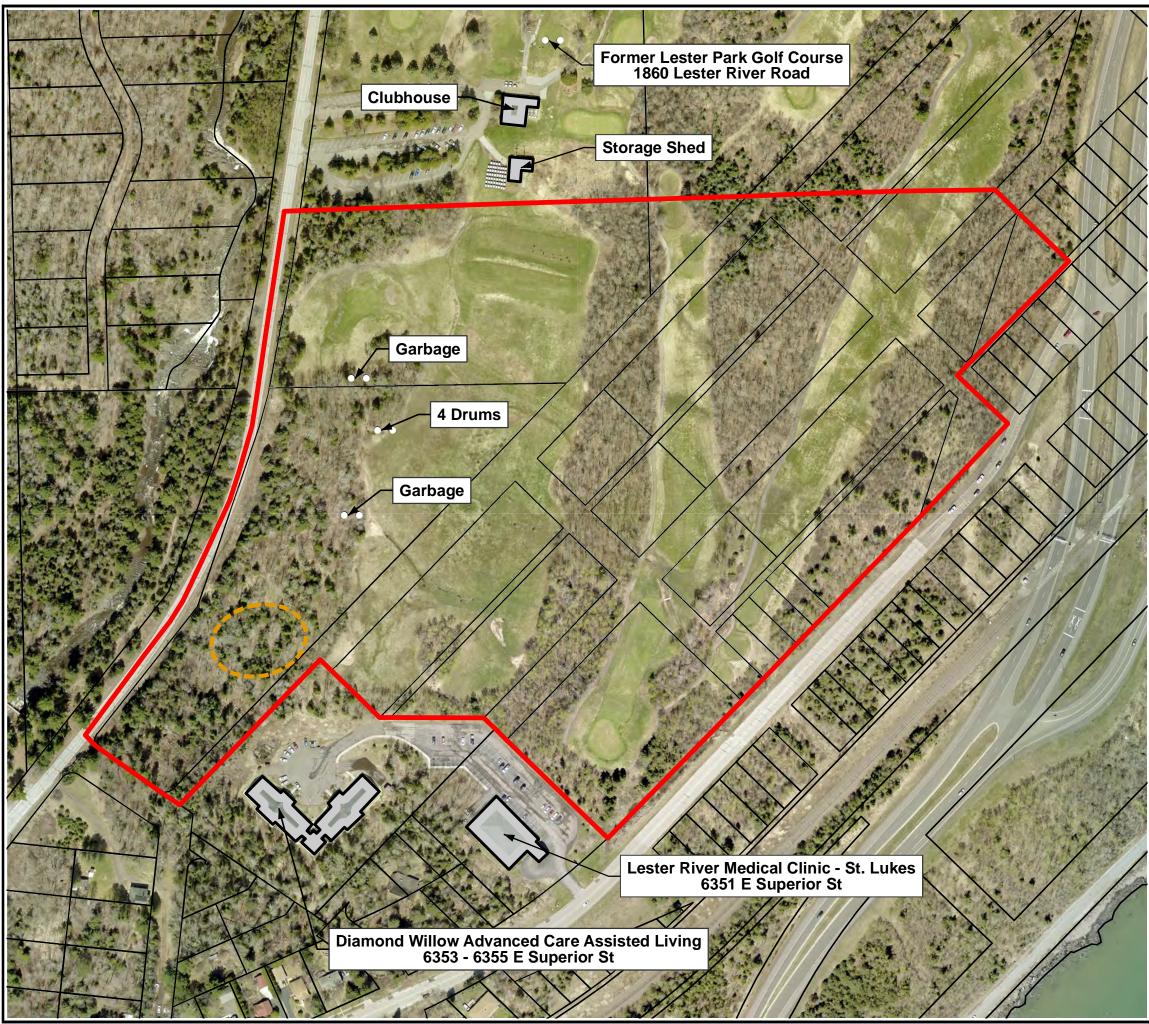


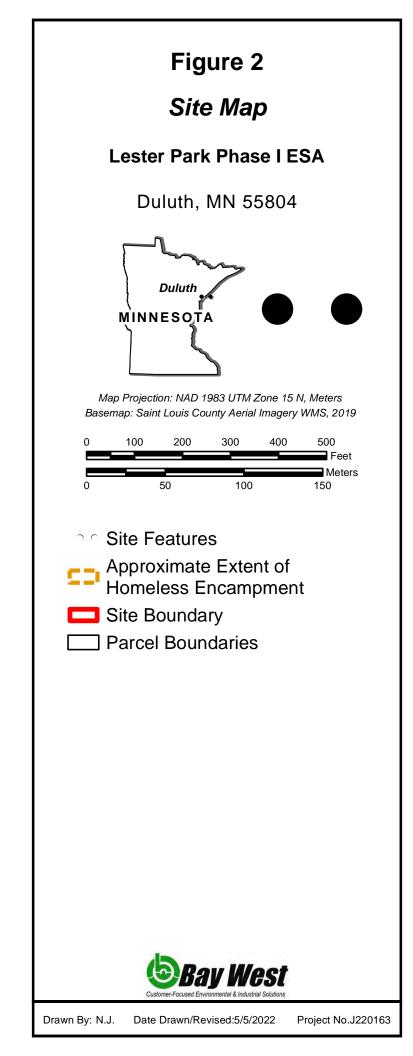
Appendix A

Property Location and Property Maps











Appendix B

User Questionnaire



PHASE I ENVIRONMENTAL ASSESSMENT CLIENT QUESTIONAIRRE

Per ASTM Standard Practice E 1527-13, Section 6, User Responsibilities, the User of an ESA has specific obligations for performing tasks during the ESA that will help identify the possibility of *recognized environmental conditions* in connection with the Site. Failure by the User to fully comply with the requirements may result in a *data gap* being identified in the report and may impact their ability to use the report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). If this questionnaire is not returned to BAY WEST prior to issuance of the draft report, then Bay West assumes that the User does not have any information or actual knowledge pursuant to ASTM Standard Practice E 1527-13, Section 6, User Responsibilities. Bay West makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

Please complete the following and return immediately via email or fax to the attention of: Erik Nimlos of Bay West at enimlos@baywest.com.

If other parties are intending to be the Users of the ESA report, then please forward a copy of this questionnaire for them to complete and return to Bay West.

Site Name: Lester Park Redevelopment

Site Address: Lester River Rd and E Superior St, Duluth, MN 55804

Bay West Project Number: J220163

Please provide the following information (if available) per the requirements of ASTM E 1527-13.

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)

Are you aware of any environmental cleanup liens against the site that are filed or recorded under federal, tribal, state or local law? Yes recorded under or No recorded under lien(s).



5. Commonly known or reasonably ascertainable information about the site (40 CFR 312.30)

Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

Do you know the past uses of the site? Yes or No 🗌 a. If yes, please state. golf Course 100000C b. Do you know of specific chemicals that are present or once were present at the site? Yes 🗌 or No If yes, please state. Do you know of spills or other chemical releases that have taken place at the site? c. or No 🗌 If yes, please state. Yes Site LEAK 00002536 received Pak MPC Site CLOSURE Do you know of any environmental cleanups that have taken place at the site? 6. or No If yes, please state. Yes 🗌



Minnesota Pollution Control Agency

July 8, 1998

Mr Chuck Faegre City of Duluth 313 City Hall Duluth, Minnesota 55802

RE: Petroleum Tank Release Site File Closure Site: Lester Park Golf Course, 1860 Lester River Road, Duluth Site ID# LEAK00002536

Dear Mr. Faegre

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Tanks and Emergency Response Section (TERS) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the TERS staff has closed the release site file

Closure of the file means that the TERS staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the TERS staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information or changing regulatory requirements make additional work necessary If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified

You should understand that this letter does not release any party from hability for the petroleum contamination under Minn Stat ch 115C (Supp. 1997) or any other applicable state or federal law. In addition, this letter does not release any party from hability for nonpetroleum contamination, if present, under Minn Stat ch. 115B (1996), the Minnesota Superfund Law

The monitoring wells for this site should be abandoned in accordance with the Minnesota Department of Health Well Code, Chapter 4725. If you choose to keep the monitoring wells, the Minnesota Department of Health will continue to assess a maintenance fee for each well.

520 Lafayette Rd N, St Paul, MN 55155-4194, (612) 296-6300 (Voice), (612) 282-5332 (TTY) Regional Offices Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Equal Opportunity Employer • Printed on recycled paper containing at least 20% fibers from paper recycled by consumers Mr. Chuck Faegre Page 2 July 8, 1998

Because you performed the requested work, the state may reimburse you for a major portion of your costs The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release cleanup costs This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 612/297-1119 or 612/297-4203

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the TERS File Request Program at 612/297-8499 The MPCA fact sheet #3 35 *Leak/Spill and Underground Storage Tank File Request Form* (April 1997) must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment If you have any questions regarding this letter, please call me at 612/297-8607.

Sincerely,

Lisa Hersch

James Joslyn
 Project Manager
 Cleanup Unit II
 Tanks and Emergency Response Section

JAJ lh

cc. Jeffrey Cox, City Clerk, Duluth Duane Flynn, Fire Chief, Duluth Ted Troolin, St Louis County Solid Waste Officer Guy Partch, Remediation Service Inc, Duluth Minnesota Department of Commerce, Petrofund Staff



Appendix C

Regulatory Database Report



Government Records Report | 2022 With Platinum Review

Order Number: 71089 Report Generated: 04/26/2022

Project Name: Lester Park Ph I ESA Project Number: J220163

> Lester Park 4th Division 6401 E Superior St Duluth, MN 55804

with Envirosite Atlas

2 Corporate Drive Suite 450 Shelton, CT 06484 Toll Free: 866-211-2028 www.envirositecorp.com

Page

Section

Executive Summary	<u>1</u>
Executive Summary by Distance	<u>2</u>
Executive Summary by Database	<u>3</u>
Property Proximity Map	<u>12</u>
Агеа Мар	<u>13</u>
Map Findings Summary	<u>14</u>
Map Findings	<u>21</u>
Unmappable Summary	<u>78</u>
Environmental Records Searched	<u>79</u>
Geological Landscape Section	<u>101</u>
Geological Landscape Section Soil Map	<u>104</u>
Geological Landscape Section Summary	<u>105</u>
Geological Findings Map	<u>125</u>
Geological Landscape Section Map Findings	<u>126</u>
Geological Landscape Section Map Findings Radon	<u>157</u>
Geological Landscape Records Searched	<u>158</u>

Disclaimer - Copyright and Trademark Notice

All information contained in this report are based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of Envirosite Corporation.

NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND Envirosite assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to Envirosite. Envirosite cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. Envirosite shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of Envirosite. Any damages shall be limited to the purchase price of the report.

Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to Envirosite, and contain copyrighted material and trademarks of Envirosite. All other trademarks used herein are the property of their respective owners. All rights of Envirosite as to the Reports are reserved.

Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-21 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Lester Park 4th Division 6401 E Superior St Duluth, MN 55804

COORDINATES:

Latitude (North): Longitude (West): Universal Transverse Mercator: UTM X (Meters): UTM Y (Meters): State Plane Coordinates: X Coordinate (Feet): Y Coordinate (Feet):

46.843605 - 46°50'37" -92.000675 - 92°0'2.4" Zone 15N 576195.41 5188269.52 2201 - Minnesota North (US Survey Feet) 2899782.183 E 455370.186 N

ELEVATION:

Elevation:

696 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 46091-G8 Lakewood, MN Most Recent Revision: 2019

Subject Property Map: 46092-G1 Duluth, MN Most Recent Revision: 2019

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	<u>RELATIVE</u> ELEVATION	DIRECTION / DISTANCE
A1	LESTER RIVER MEDICAL CLINIC	6351 E SUPERIOR ST 6351	FRS, HWG - MN	Lower	SSW / 0.032 mi., 168 ft.
A2	Lester River Medical Clinic	6351 Superior St	HWG - MN	Lower	SSW / 0.032 mi., 168 ft.
3	Hinzmann Residential Mercury Spill	6304 East Superior St	HIST SPILLS - MN, SPILLS - MN	Lower	SSW / 0.082 mi., 433 ft.
4	US EPA - MED-DULUTH Evironmental	6201 CONGDON BLVD 6201	WIMN - MN	Lower	SSW / 0.214 mi., 1128
5	LESTERWOOD APARTMENTS	6025 E SUPERIOR ST	WIMN - MN	Lower	WSW / 0.262 mi., 1383
B6	I C O LESTER PARK Former Lester Pa	5931 E SUPERIOR ST	EPA LUST, HIST LUST - MN, LUST - MN, WIMN	Lower	WSW / 0.326 mi., 1724
B7	LESTER PARK LAUNDROMAT Lester	5927 E SUPERIOR ST	MPCA SITE ASSESSMENT - MN, SHWS - MN, W	Lower	WSW / 0.342 mi., 1804
B 8	LESTER PARK SKELLY Atkinson Servi	5930 E SUPERIOR ST	EPA LUST, HIST LUST - MN, LUST - MN, WIMN	Lower	WSW / 0.345 mi., 1822
9	LESTER PARK GOLF COURSE DULUT	1860 LESTER RIVER RD	AG_LICENSES - MN, AST - MN, ECHO, EPA LUST	Higher	NNE / 0.355 mi., 1874
C10	Brunelle Residence	5805 Oneida Ave	LUST - MN	Lower	WSW / 0.371 mi., 1958
C11	Brunelle Residence	5805 Oneida St	MPCA SITE ASSESSMENT - MN, WIMN - MN	Lower	WSW / 0.371 mi., 1958
B12	LAKESIDE SUPER ONE FOODS SUPER	5928 E SUPERIOR ST 5928	EPA LUST, HIST LUST - MN, LUST - MN, WIMN	Lower	WSW / 0.372 mi., 1964
13	MELISSA J RESCH	5414 AVONDALE ST	WIMN - MN	Higher	W / 0.493 mi., 2602 ft.

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

SEARCH RESULTS:

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database 4 SITES FOUND WITHIN .5 MILE

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
9	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC	1860 LESTER RIVER RD	NNE / 0.355 mi., 1874 ft.	42

LOWER ELEVATION

MAP ID B6	<u>SITE NAME</u> I C O LESTER PARK Former Lester Park Service Lester Park Service	<u>SITE ADDRESS</u> 5931 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.326 mi., 1724 ft.	<u>РАGЕ</u> 27
B8	<i>LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly</i>	5930 E SUPERIOR ST	WSW / 0.345 mi., 1822 ft.	38
B12	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455	5928 E SUPERIOR ST 5928 EAST SUPERIOR ST	WSW / 0.372 mi., 1964 ft.	73

HIST LUST - MN: Historical listing of leaking storage tank incidents 4 SITES FOUND WITHIN .5 MILE

EQUAL/HIGHER ELEVATION

MAP ID 9	<u>SITE NAME</u> LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC	<u>SITE ADDRESS</u> 1860 LESTER RIVER RD	DIRECTION/DISTANCE NNE / 0.355 mi., 1874 ft.	<u>РАGЕ</u> 42
	- ID: Site ID 55936 - ID: Program ID 215335	Status: INACTIVE Status: N/A	Date: 2014-11-10 Date: 1998-07-08	

MAP ID B6	<u>SITE NAME</u> I C O LESTER PARK Former Lester Park Service Lester Park Service	<u>SITE ADDRESS</u> 5931 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.326 mi., 1724 ft.	PAGE 27
	- ID: Site ID 22935 - ID: Program ID 298293 - ID: Site ID 22935 - ID: Program ID 223379	Status: INACTIVE Status: N/A Status: INACTIVE Status: N/A	Date: 2014-11-10 Date: 2004-11-22 Date: 2013-03-19 Date: 2000-06-22	
B8	<i>LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly</i>	5930 E SUPERIOR ST	WSW / 0.345 mi., 1822 ft.	38
	- ID: Site ID 23099 - ID: Program ID 213076	Status: INACTIVE Status: N/A	Date: 2014-11-10 Date: 1990-04-01	
B12	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455	5928 E SUPERIOR ST 5928 EAST SUPERIOR ST	WSW / 0.372 mi., 1964 ft.	73
	- ID: Site ID 270255	Status: INACTIVE	Date: 2014-11-10	

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

HIST LUST - MN: Historical listing of leaking storage tank incidents 4 SITES FOUND WITHIN .5 MILE

LOWER ELEVATION (cont.)

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
	- ID: Program ID 436980	Status: N/A	Date: 2009-10-30	

LUST - MN: Listing of leaking storage tank incident 5 SITES FOUND WITHIN .5 MILE

EQUAL/HIGHER ELEVATION

<u>MAP ID</u> 9	<u>SITE NAME</u> LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC	<u>SITE ADDRESS</u> 1860 LESTER RIVER RD	DIRECTION/DISTANCE NNE / 0.355 mi., 1874 ft.	<u>PAGE</u> 42
	- ID: Project ID LS0002536 - ID: Activity ID SIW19900001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 1998-07 08	·_

LOWER ELEVATION

<u>MAP ID</u> B6	<u>SITE NAME</u> I C O LESTER PARK Former Lester Park Service Lester Park Service	<u>SITE ADDRESS</u> 5931 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.326 mi., 1724 ft.	<u>РАGE</u> 27
	- ID: Project ID LS0015815 - ID: Activity ID SIW20040001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2004-11- 22	
	- ID: Project ID LS0010955 - ID: Activity ID SIW19970001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2000-06- 22	
B8	LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly	5930 E SUPERIOR ST	WSW / 0.345 mi., 1822 ft.	38
	- ID: Project ID LS0000058 - ID: Activity ID SIW19860001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 1990-04- 01	
C10	Brunelle Residence	5805 Oneida Ave	WSW / 0.371 mi., 1958 ft.	69
	- ID: Project ID LS0020273 - ID: Activity ID SIW20160001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2017-12- 22	
B12	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455	5928 E SUPERIOR ST 5928 EAST SUPERIOR ST	WSW / 0.372 mi., 1964 ft.	73
	- ID: Project ID LS0016874 - ID: Activity ID SIW20070001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2009-10- 30	

STATE RCRA GENERATORS LIST

HWG - MN: Listing of permitted hazardous waste generators 2 SITES FOUND WITHIN .25 MILE

MAP ID A1	<u>SITE NAME</u> LESTER RIVER MEDICAL CLINIC	<u>SITE ADDRESS</u> 6351 E SUPERIOR ST 6351 E Superior St (null)	DIRECTION/DISTANCE SSW / 0.032 mi., 168 ft.	<u>РАGЕ</u> 21
	- ID: Site ID 134735	Status: N/A	Date: N/A	

STATE RCRA GENERATORS LIST (cont.)

HWG - MN: Listing of permitted hazardous waste generators 2 SITES FOUND WITHIN .25 MILE

LOWER ELEVATION (cont.)

MAP ID	<u>SITE NAME</u> - ID: Activity ID MNS000153239	Status: ACTIVE	DIRECTION/DISTANCE Date: N/A	PAGE
A2	Lester River Medical Clinic	6351 Superior St	SSW / 0.032 mi., 168 ft.	22
	- ID: Site ID 134735 - ID: Activity ID MNS000153239	Status: N/A Status: ACTIVE	Date: N/A Date: N/A	

STATE- AND TRIBAL - EQUIVALENT CERCLIS

SHWS - MN: Hazardous Waste RCRA and Integrated Remediation projects 1 SITE FOUND WITHIN 1 MILE

LOWER ELEVATION

<u>MAP ID</u> B7	<u>SITE NAME</u> LESTER PARK LAUNDROMAT Lester Park Soil Vapor	<u>SITE ADDRESS</u> 5927 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.342 mi., 1804 ft.	<u>РАGE</u> 35
	- ID: Site ID 57743 - ID: Activity ID SA4577	Status: N/A Status: Inactive	Date: N/A Date: N/A	

RECORDS OF EMERGENCY RELEASE REPORTS

HIST SPILLS - MN: Historical locations with known contamination from spills. 1 SITE FOUND WITHIN .125 MILE

LOWER ELEVATION

MAP ID 3	<u>SITE NAME</u> Hinzmann Residential Mercury Spill Stacie Hinzmann - Residential Mercury Spill	<u>SITE ADDRESS</u> 6304 East Superior St	DIRECTION/DISTANCE SSW / 0.082 mi., 433 ft.	PAGE 22
	- ID: 63579426	Status: Response Completed	Date: Spill Site Closure 2012-10-26	
	- ID: 63579424	Status: Closed, Other (See Remarks)	Date: Spill Site Closure 2012-08-20	

SPILLS - MN: Locations with known contamination from spills 1 SITE FOUND WITHIN .125 MILE

MAP IDSITE NAME3Hinzmann Residential Mercury Spill Stacie Hinzmann - Residential Mercury Spill		<u>SITE ADDRESS</u> 6304 East Superior St	DIRECTION/DISTANCE SSW / 0.082 mi., 433 ft.	PAGE 22
	- ID: 84799	Status: Closed or Completed	Date: Incident_Date 2012- 06-20	
	- ID: 84800	Status: Closed or Completed	Date: Incident_Date 2012- 08-12	

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

MPCA SITE ASSESSMENT - MN: MPCA Site Assessment listing 2 SITES FOUND WITHIN .5 MILE

LOWER ELEVATION

<u>MAP ID</u> B7	<u>SITE NAME</u> LESTER PARK LAUNDROMAT Lester Park Soil Vapor	<u>SITE ADDRESS</u> 5927 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.342 mi., 1804 ft.	<u>PAGE</u> 35
	- ID: Project ID SA0004577 - ID: Activity ID SIW20120001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2009-10- 21	
C11	Brunelle Residence	5805 Oneida St	WSW / 0.371 mi., 1958 ft.	70
	- ID: Project ID SA0000406 - ID: Activity ID SIW20180001	Status: Closed Status: N/A	Date: N/A Date: Site Closed 2018-06- 28	

OTHER ASCERTAINABLE RECORDS

WIMN - MN: Listing of WIMN sites involved in the site assessments, emergency management, environmental review, petroleum tanks, and other programs **9 SITES FOUND WITHIN .5 MILE**

EQUAL/HIGHER ELEVATION

MAP ID 9	<u>SITE NAME</u> LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC	<u>SITE ADDRESS</u> 1860 LESTER RIVER RD	DIRECTION/DISTANCE NNE / 0.355 mi., 1874 ft.	PAGE 42
	- ID: Site ID 42034 - ID: Activity ID LS0002536 - ID: Activity ID TS0005358	Status: N/A Status: INACTIVE Status: ACTIVE	Date: N/A Date: N/A Date: N/A	
13	MELISSA J RESCH - ID: Site ID 206051 - ID: Activity ID C8349	5414 AVONDALE ST Status: N/A Status: ACTIVE	W / 0.493 mi., 2602 ft. Date: N/A Date: N/A	77

MAP ID 4	SITE NAME US EPA - MED-DULUTH Evironmental Research Laboratory-duluth US EPA - GLTED	SITE ADDRESS 6201 CONGDON BLVD 6201 CONGDON BLVD T50N R13W SEC 4 ST LOUIS CTY 6201 CONGDON BOULEVARD NATIONAL HEALTH & ENVIRONMENTAL EFFECT RESEARCH LABORATORY	DIRECTION/DISTANCE SSW / 0.214 mi., 1128 ft.	<u>PAGE</u> 26
	- ID: Site ID 2425 - ID: Activity ID TS0005020	Status: N/A Status: ACTIVE	Date: N/A Date: N/A	
5	LESTERWOOD APARTMENTS	6025 E SUPERIOR ST	WSW / 0.262 mi., 1383 ft.	26
	- ID: Site ID 108245 - ID: Activity ID TS0020677	Status: N/A Status: INACTIVE	Date: N/A Date: N/A	
B6	<i>I C O LESTER PARK Former Lester Park Service Lester Park Service</i>	5931 E SUPERIOR ST	WSW / 0.326 mi., 1724 ft.	27
	- ID: Site ID 26410 - ID: Activity ID LS0010955 - ID: Activity ID LS0015815 - ID: Activity ID TS0014657	Status: N/A Status: INACTIVE Status: INACTIVE Status: INACTIVE	Date: N/A Date: N/A Date: N/A Date: N/A	

OTHER ASCERTAINABLE RECORDS (cont.)

WIMN - MN: Listing of WIMN sites involved in the site assessments, emergency management, environmental review, petroleum tanks, and other programs **9 SITES FOUND WITHIN .5 MILE**

LOWER ELEVATION (cont.)

MAP ID B7	<u>SITE NAME</u> LESTER PARK LAUNDROMAT Lester Park Soil Vapor	<u>SITE ADDRESS</u> 5927 E SUPERIOR ST	DIRECTION/DISTANCE WSW / 0.342 mi., 1804 ft.	<u>РАGЕ</u> 35
	- ID: Site ID 40838 - ID: Activity ID SA0004577	Status: N/A Status: INACTIVE	Date: N/A Date: N/A	
B8	<i>LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly</i>	5930 E SUPERIOR ST	WSW / 0.345 mi., 1822 ft.	38
	- ID: Site ID 23367 - ID: Activity ID LS0000058 - ID: Activity ID TS0005270	Status: N/A Status: INACTIVE Status: INACTIVE	Date: N/A Date: N/A Date: N/A	
C11	Brunelle Residence	5805 Oneida St	WSW / 0.371 mi., 1958 ft.	70
	- ID: Site ID 214403 - ID: Activity ID LS0020273 - ID: Activity ID SA0000406	Status: N/A Status: INACTIVE Status: INACTIVE	Date: N/A Date: N/A Date: N/A	
B12	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455	5928 E SUPERIOR ST 5928 EAST SUPERIOR ST	WSW / 0.372 mi., 1964 ft.	73
	- ID: Site ID 191569 - ID: Activity ID LS0016874	Status: N/A Status: INACTIVE	Date: N/A Date: N/A	

Following sites were unable to be mapped.

SITE NAME:	ADDRESS, CITY, ZIP:	DATABASE(S):
Lakewood Express Short Stop	Highway 61 S, Duluth 55804	TALES - MN

DATABASE(S) WITH NO MAPPED SITES:

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST					
ARCHIVED RCRA TSDF	Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities				
RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities				

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS	ASTs at Bulk Petroleum Terminals
EPA UST	EPA UST Finder database
FEMA UST	FEMA Underground Storage Tanks
HIST INDIAN UST R6	Historical Underground Storage Tanks on Indian Land in EPA Region 6
HIST INDIAN UST R7	Historical Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST - MN	Aboveground Storage Tanks
HIST AST - MN	Historical Aboveground Storage Tanks

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

HIST TANK SITES - MN HIST UST - MN UST - MN Historical Storage Tanks Historical Underground Storage Tank Underground Storage Tank

FEDERAL CERCLIS LIST

CERCLIS NFRAP

CERCLIS-HIST EPA SAA FEDERAL FACILITY SEMS_8R_ACTIVE SITES SEMS 8R ARCHIVED SITES Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned Comprehensive Environmental Response Compensation and Liability Act EPA Superfund Alternative Approach Federal Facility sites Sites on SEMS Active Site Inventory Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS HIST CORRACTS 2 Hazardous Waste Corrective Action Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPLDelisted National Priority ListDELISTED PROPOSED NPLDelisted proposed National Priority ListSEMS_DELETED NPLSites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS EPA LF MOP EPA Landfill Methane Out

EPA Landfill Methane Outreach Project Database

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

FEDERAL, STATE, AND TRIBAL LEAKING S	DIURAGE IANK LISIS
HIST INDIAN LUST R4	Historical Leaking Underground Storage Tanks on Indian Land in EPA
	Region 4
HIST INDIAN LUST R8	Historical Leaking Underground Storage Tanks on Indian Land in EPA
	Region 8
INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
FEDERAL ERNS LIST	
ERNS	Emergency Response Notification System
FEDERAL INSTITUTIONAL CONTROLS / EN	

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C FED I C RCRA IC_EC	Engineering Controls Institutional Controls RCRA sites with Institutional and Engineering Controls
FEDERAL RCRA GENERATORS LIST	
HIST RCRA_CESQG	Historical Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators
HIST RCRA_LQG	Historical Resource Conservation and Recovery Act_Large Quantity Generators
HIST RCRA NONGEN	Historical Resource Conservation and Recovery Act Non Generators
HIST RCRA_SQG	Historical Resource Conservation and Recovery Act_Small Quantity Generators
RCRA LQG	Resource Conservation and Recovery Act Large Quantity Generators
RCRA_NONGEN	Resource Conservation and Recovery Act_Non Generators
RCRA_SQG	Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_VSQG	Resource Conservation and Recovery Act_Very Small Quantity Generator

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL EPA R1 GIS	GIS for EPA Region 1 NPL
NPL EPA R3 GIS	GIS for EPA Region 3 NPL
NPL EPA R6 GIS	GIS for EPA Region 6 NPL
NPL EPA R8 GIS	GIS for EPA Region 8 NPL
NPL EPA R9 GIS	GIS for EPA Region 9 NPL
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List
SEMS FINAL NPL	Sites included on the Final National Priorities List
SEMS PROPOSED NPL	Sites Proposed to be Added to the National Priorities List

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS BROWNFIELDS - MN MPCA BROWNFIELDS - MN Tribal Brownfields Brownfields MPCA Brownfields

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

CLP - MN SW OTHER - MN SWF/LF - MN Closed Landfill Priority List Other solid waste facilities Solid Waste Facilities and Landfills

STATE AND TRIBAL EQUIVALENT DELISTED NPL SITE LIST

DEL PLP - MN Delisted Permanent List of Priorities

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

HIST I C - MN I C - MN Historical Institutional Controls Institutional Controls

STATE- AND TRIBAL - EQUIVALENT CERCLIS

MPCA REMEDIATION - MN MPCA SUPERFUND - MN SRS - MN MPCA Remediation Sites MPCA Superfund Sites Site Remediation Section

STATE- AND TRIBAL - EQUIVALENT NPL

PLP - MN

Permanent List of Priorities

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VIC - MN Voluntary Investigation and Cleanup Program

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT) AG SPILLS - MN TALES - MN Hazardous Materials Information Reporting Systems Agriculture Spills Tanks Leaks and Spills Database

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES FED BROWNFIELDS EPA ACRES Brownfields Federal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL US HIST CDL CDL - MN

DOJ Clandestine Drug Labs Historical Clandestine Drug Labs

Clandestine Drug Labs

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8 INDIAN ODI R8 ODI TRIBAL ODI SWRCY - MN Historical Open Dump Inventory Open Dump Inventory Open Dump Inventory Indian Open Dump Inventory Sites Recycling Facilities

2022

LOCAL LAND RECORDS

LIENS 2 HIST LIENS - MN LIENS - MN

OTHER ASCERTAINABLE RECORDS

AFS ALT FUELING BRS CDC HAZDAT COAL ASH DOE COAL ASH EPA COAL GAS COLLEGES COLLEGES 2 CONSENT (DECREES) **CORRECTIVE ACTIONS 2020** DEBRIS EPA LF DEBRIS EPA SWRCY DOD DOT OPS ECHO ENO EPA FUELS EPA OSC **EPA WATCH** FA HWF FEDLAND FRS FTTS FTTS INSP FUDS HIST AFS HIST AFS 2 HIST DOD HIST LEAD SMELTER HIST MLTS HIST PCB TRANS HIST PCS ENF HIST PCS FACILITY HIST SSTS HOSPITALS HWC DOCKET ICIS **INACTIVE PCS** INDIAN RESERVATION LUCIS LUCIS 2 MANIFEST EPA MINE OPERATIONS MINES MINES USGS MLTS NPL AOC NPL LIENS NURSING HOMES OSHA PADS PCB TRANSFORMER

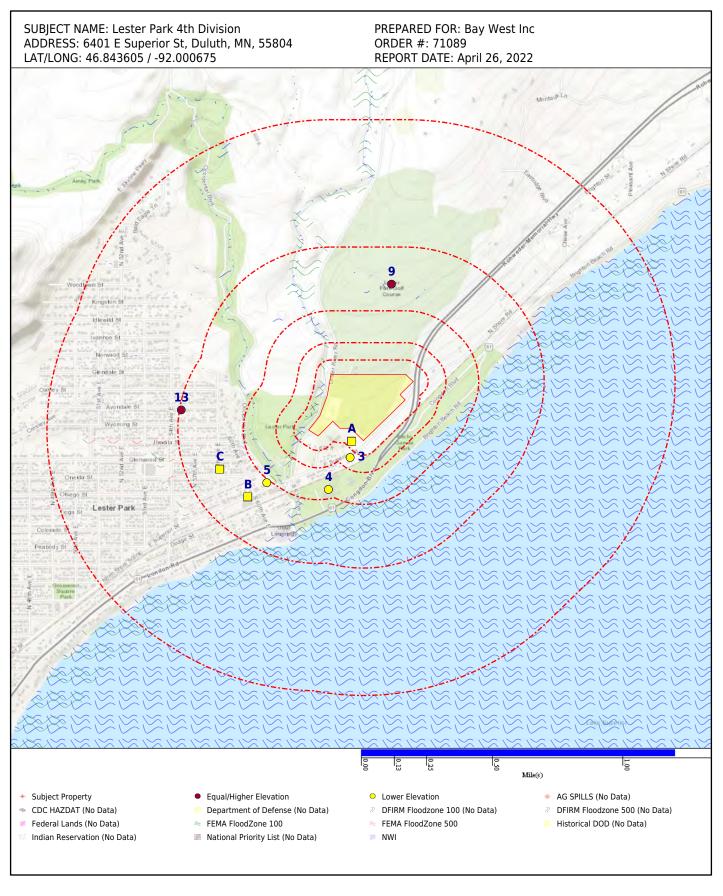
CERCLA Lien Information Historical Environmental Liens Environmental Liens

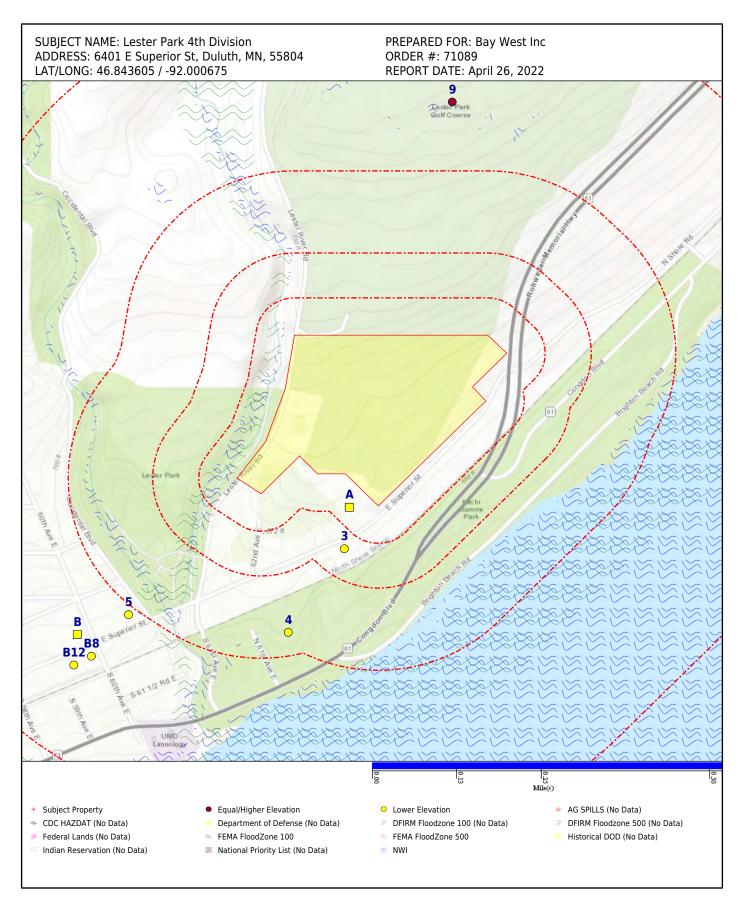
Air Facility Systems **Alternative Fueling Stations Biennial Reporting Systems** Hazardous Substance Release and Health Effects Information Coal Ash: Department of Energy Coal Ash: Environmental Protection Agency Coal Gas Plants COLLEGES **COLLEGES 2** Superfund Consent Decree Wastes - Hazardous Waste - Corrective Action **EPA Disaster Debris Landfill Sites EPA Disaster Debris Recovery Sites** Department of Defense Department of Transportation Office of Pipeline Safety EPA Enforcement and Compliance History Online **Electronic Notice of Intent** EPA Fuels Registration, Reporting, and Compliance List EPA On-Site Coordinator **EPA Watch List** Financial Assurance for Hazardous Waste Facilities Federal Lands Facility Index Systems FIFRA/TSCA Tracking System FIFRA/TSCA Tracking System: Inspections Formerly Used Defense Sites **Historical Air Facility Systems Historical Air Facility Systems** Department of Defense historical sites Historical Lead Smelter Sites Historical Material Licensing Tracking Systems Historical Polychlorinated Biphenyl (PCB) Facilities Historical Enforced Permit Compliance Facilities **Historical Permit Compliance Facilities** Historical Section 7 Tracking Systems HOSPITALS Hazardous Waste Compliance Docket Integrated Compliance Information System Inactive Permit Compliance Facilities American Indian Lands Land Use Control Information Systems Land Use Control Information Systems 2 **EPA Hazardous Waste Manifests** Mines list from USGS Mines Mines list from USGS Material Licensing Tracking Systems Areas related to NPL remediation sites National Priority List Liens NURSING HOMES Occupational Safety & Health Administration PCB Activity Database Systems Polychlorinated Biphenyl (PCB) Waste

OTHER ASCERTAINABLE RECORDS (cont.)

PCS ENF PCS FACILITY PFAS NPL PFAS TRIS PFAS UCMR3 RAATS RADINFO RMP ROD SCHOOLS PRIVATE SCHOOLS PUBLIC SCRD DRYCLEANERS SEMS SMELTER SSTS STORMWATER TOSCA-PLANT TRIS UMTRA VAPOR AG LICENSES - MN AIRS - MN BULK - MN COAL ASH - MN **DRYCLEANERS - MN** EMI - MN ENF - MN FA 2 - MN FA 3 - MN FEEDLOTS - MN HIST AGVIC - MN HIST DRYCLEANERS - MN HIST FA 2 - MN HIST MANIFEST - MN HIST UNPERM LF - MN HIST WIMN - MN HWS PERMIT - MN MANIFEST - MN MANIFEST SCOTT COUNTY - MN MDA LIC - MN MPCA UNPERM LF - MN NPDES - MN PFAS - MN T 2 - MN

Enforced Permit Compliance Facilities Permit Compliance Facilities PFAS NPL Sites **PFAS TRIS Sites PFAS UCMR Samples RCRA Administrative Action Tracking Systems Radiation Information Systems Risk Management Plans** Record of Decision SCHOOLS PRIVATE SCHOOLS PUBLIC SCRD Drycleaners Sites on SEMS Potential Smelter Activity Section 7 Tracking Systems Storm Water Permits **Toxic Substance Control Act: Plants Toxic Release Inventory Systems Uranium Mill Tailing Sites EPA Vapor Intrusion** Fertilizer related facilities from the Minnesota Department of Agriculture Licensing Data Air Permits **Bulk Facilities** Coal Ash Drycleaners **Emissions Inventory** Generator Enforcement Cases **Financial Assurance SWF Financial Assurance HWS** Feedlot Site Listing Historical Agricultural Voluntary Investigation & Cleanup Listing Historical Drycleaners Historical Financial Assurance SWF Historical Hazardous Waste Manifest **Historical Unpermitted Facilities** Historical Whats In My Neighborhood Hazardous Waste Permit Sites Hazardous Waste Manifest MANIFEST Scott County Licensing MPCA Unpermitted LF State Wastewater and NPDES Permits PFAS Site Listing Tier 2





DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> DISTANCE (MILES)	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
FEDERAL RCRA NON-CORRAC	TS TSD FACILI	TIES LIST						
ARCHIVED RCRA TSDF		0.500	0	0	0			0
RCRA_TSDF		0.500	0	0	0			0
FEDERAL, STATE, AND TRIBA	L REGISTERED	STORAGE TANK	LISTS					
AST PBS		0.250	0	0				0
EPA UST		0.250	0	0				0
FEMA UST		0.250	0	0				0
HIST INDIAN UST R6		0.250	0	0				0
HIST INDIAN UST R7		0.250	0	0				0
INDIAN UST R1		0.250	0	0				0
INDIAN UST R10		0.250	0	0				0
INDIAN UST R2		0.250	0	0				0
INDIAN UST R4		0.250	0	0				0
INDIAN UST R5		0.250	0	0				0
INDIAN UST R6		0.250	0	0				0
INDIAN UST R7		0.250	0	0				0
INDIAN UST R8		0.250	0	0				0
INDIAN UST R9		0.250	0	0				0
AST - MN		0.250	0	0				0
HIST AST - MN		0.250	0	0				0
HIST TANK SITES - MN		0.250	0	0				0
HIST UST - MN		0.250	0	0				0
UST - MN		0.250	0	0				0

FEDERAL CERCLIS LIST

CERCLIS NFRAP	0.500	0	0	0		 0
CERCLIS-HIST	0.500	0	0	0		 0
EPA SAA	0.500	0	0	0		 0
FEDERAL FACILITY	1.000	0	0	0	0	 0
SEMS_8R_ACTIVE SITES	0.500	0	0	0		 0
SEMS_8R_ARCHIVED SITES	0.500	0	0	0		 0

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS		1.000	0	0	0	0		0	
HIST CORRACTS 2		1.000	0	0	0	0		0	
FEDERAL DELISTED NPL SITE LIST									

DELISTED NPL 1.000 0 0 0 - 0

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> <u>DISTANCE</u> (MILES)	<u><1/8</u>	<u> 1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED			
FEDERAL DELISTED NPL SITE	LIST (cont.)										
DELISTED PROPOSED NPL		1.000	0	0	0	0		0			
SEMS_DELETED NPL		1.000	0	0	0	0		0			
FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS											
EPA LF MOP		0.500	0	0	0			0			
FEDERAL, STATE, AND TRIBAL	LEAKING ST	ORAGE TANK LIST	ſS								
EPA LUST		0.500	0	0	4			4			
HIST INDIAN LUST R4		0.500	0	0	0			0			
HIST INDIAN LUST R8		0.500	0	0	0			0			
INDIAN LUST R1		0.500	0	0	0			0			
INDIAN LUST R10		0.500	0	0	0			0			
INDIAN LUST R2		0.500	0	0	0			0			
INDIAN LUST R4		0.500	0	0	0			0			
INDIAN LUST R5		0.500	0	0	0			0			
INDIAN LUST R6		0.500	0	0	0			0			
INDIAN LUST R7		0.500	0	0	0			0			
INDIAN LUST R8		0.500	0	0	0			0			
INDIAN LUST R9		0.500	0	0	0			0			
HIST LUST - MN		0.500	0	0	4			4			
LUST - MN		0.500	0	0	5			5			

FEDERAL ERNS LIST

ERNS SP 0

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	0.500	0	0	0	 	0
FED I C	0.500	0	0	0	 	0
RCRA IC_EC	0.250	0	0		 	0

FEDERAL RCRA GENERATORS LIST

0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
0.250	0	0				0
	0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250	0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0 0.250 0	0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0	0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0	0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0	0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> <u>DISTANCE</u> (MILES)	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0		0
NPL EPA R1 GIS		1.000	0	0	0	0		0
NPL EPA R3 GIS		1.000	0	0	0	0		0
NPL EPA R6 GIS		1.000	0	0	0	0		0
NPL EPA R8 GIS		1.000	0	0	0	0		0
NPL EPA R9 GIS		1.000	0	0	0	0		0
PART NPL		1.000	0	0	0	0		0
PROPOSED NPL		1.000	0	0	0	0		0
SEMS_FINAL NPL		1.000	0	0	0	0		0
SEMS_PROPOSED NPL		1.000	0	0	0	0		0
STATE AND TRIBAL BROWN	FIELD SITES							
TRIBAL BROWNFIELDS		0.500	0	0	0			0
BROWNFIELDS - MN		0.500	0	0	0			0
MPCA BROWNFIELDS - MN		0.500	0	0	0			0
STATE AND TRIBAL LANDFI	LL AND/OR SOLII	D WASTE DISPO	SAL SITE LI	STS				
CLP - MN		0.500	0	0	0			0
SW OTHER - MN		0.500	0	0	0			0
SWF/LF - MN		0.500	0	0	0			0
STATE AND TRIBAL EQUIVA	LENT DELISTED	NPL SITE LIST						
DEL PLP - MN		1.000	0	0	0	0		0
STATE INSTITUTIONAL CON	TROLS / ENGINE	ERING CONTROL	S REGISTR	IES				
HIST I C - MN		0.500	0	0	0			0
I C - MN		0.500	0	0	0			0
STATE RCRA GENERATORS	LIST							
HWG - MN		0.250	2	0				2
STATE- AND TRIBAL - EQUIN	ALENT CERCLIS		1					ł
MPCA REMEDIATION - MN		0.500	0	0	0			0
MPCA SUPERFUND - MN		1.000	0	0	0	0		0
SHWS - MN		1.000	0	0	1	0		1
SRS - MN		0.500	0	0	0			0
STATE- AND TRIBAL - EQUIV			1	1				1
PLP - MN		1.000	0	0	0	0		0
		1.000	, ř	l ĭ	, v	v		J J

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> DISTANCE (MILES)	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
STATE AND TRIBAL VOLUNT	ARY CLEANUP S	TES						
VIC - MN		0.500	0	0	0			0
RECORDS OF EMERGENCY R	ELEASE REPORT	S						
HMIRS (DOT)		SP	0					0
AG SPILLS - MN		0.125	0					0
HIST SPILLS - MN		0.125	1					1
SPILLS - MN		0.125	1					1
TALES - MN		0.500	0	0	0			0
LOCAL BROWNFIELD LISTS								
BROWNFIELDS-ACRES		0.500	0	0	0			0
FED BROWNFIELDS		0.500	0	0	0			0
LOCAL LISTS OF HAZARDOU	S WASTE / CONT	AMINATED SITE	S					
FED CDL		SP	0					0
US HIST CDL		SP	0					0
CDL - MN		SP	0					0
MPCA SITE ASSESSMENT - MN		0.500	0	0	2			2
LOCAL LISTS OF LANDFILL /	SOLID WASTE D	ISPOSAL SITES						
HIST INDIAN ODI R8		0.500	0	0	0			0
INDIAN ODI R8		0.500	0	0	0			0
ODI		0.500	0	0	0			0
TRIBAL ODI		0.500	0	0	0			0
SWRCY - MN		0.500	0	0	0			0
LOCAL LAND RECORDS				•				
LIENS 2		SP	0					0
HIST LIENS - MN		SP	0					0
LIENS - MN		SP	0					0
OTHER ASCERTAINABLE REG	CORDS							
AFS		SP	0					0
ALT FUELING		0.250	0	0				0
BRS		SP	0					0
CDC HAZDAT		1.000	0	0	0	0		0
COAL ASH DOE		0.500	0	0	0			0
COAL ASH EPA		0.500	0	0	0			0
COAL GAS		1.000	0	0	0	0		0

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> DISTANCE (MILES)	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
OTHER ASCERTAINABLE RECO	ORDS (cont.)							
COLLEGES		SP	0					0
COLLEGES 2		SP	0					0
CONSENT (DECREES)		1.000	0	0	0	0		0
CORRECTIVE ACTIONS_2020		0.500	0	0	0			0
DEBRIS EPA LF		0.500	0	0	0			0
DEBRIS EPA SWRCY		0.500	0	0	0			0
DOD		1.000	0	0	0	0		0
DOT OPS		SP	0					0
ЕСНО		SP	0					0
ENOI		SP	0					0
EPA FUELS		SP	0					0
EPA OSC		0.125	0					0
EPA WATCH		SP	0					0
FA HWF		SP	0					0
FEDLAND		1.000	0	0	0	0		0
FRS		SP	0					0
FTTS		SP	0					0
FTTS INSP		SP	0					0
FUDS		1.000	0	0	0	0		0
HIST AFS		SP	0					0
HIST AFS 2		SP	0					0
HIST DOD		1.000	0	0	0	0		0
HIST LEAD_SMELTER		SP	0					0
HIST MLTS		SP	0					0
HIST PCB TRANS		SP	0					0
HIST PCS ENF		SP	0					0
HIST PCS FACILITY		SP	0					0
HIST SSTS		SP	0					0
HOSPITALS		SP	0					0
HWC DOCKET		SP	0					0
ICIS		SP	0					0
INACTIVE PCS		SP	0					0
INDIAN RESERVATION		1.000	0	0	0	0		0
LUCIS		0.500	0	0	0			0
LUCIS 2		0.500	0	0	0			0
MANIFEST EPA		0.250	0	0				0

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> <u>DISTANCE</u> (MILES)	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
OTHER ASCERTAINABLE REC	CORDS (cont.)							
MINE OPERATIONS		0.250	0	0				0
MINES		0.250	0	0				0
MINES USGS		0.250	0	0				0
MLTS		SP	0					0
NPL AOC		1.000	0	0	0	0		0
NPL LIENS		SP	0					0
NURSING HOMES		SP	0					0
OSHA		SP	0					0
PADS		SP	0					0
PCB TRANSFORMER		SP	0					0
PCS ENF		SP	0					0
PCS FACILITY		SP	0					0
PFAS NPL		0.500	0	0	0			0
PFAS TRIS		0.500	0	0	0			0
PFAS UCMR3		0.500	0	0	0			0
RAATS		SP	0					0
RADINFO		SP	0					0
RMP		0.500	0	0	0			0
ROD		1.000	0	0	0	0		0
SCHOOLS PRIVATE		SP	0					0
SCHOOLS PUBLIC		SP	0					0
SCRD DRYCLEANERS		0.250	0	0				0
SEMS_SMELTER		SP	0					0
SSTS		SP	0					0
STORMWATER		SP	0					0
TOSCA-PLANT		SP	0					0
TRIS		SP	0					0
UMTRA		0.500	0	0	0			0
VAPOR		0.500	0	0	0			0
AG_LICENSES - MN		0.250	0	0				0
AIRS - MN		SP	0					0
BULK - MN		1.000	0	0	0	0		0
COAL ASH - MN		0.500	0	0	0			0
DRYCLEANERS - MN		0.250	0	0				0
EMI - MN		SP	0					0
ENF - MN		SP	0					0

DATABASE	<u>SUBJECT</u> PROPERTY	<u>SEARCH</u> DISTANCE (MILES)	<u><1/8</u>	<u> 1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL</u> MAPPED
OTHER ASCERTAINABLE RECO	RDS (cont.)							
FA 2 - MN		SP	0					0
FA 3 - MN		SP	0					0
FEEDLOTS - MN		0.500	0	0	0			0
HIST AGVIC - MN		0.500	0	0	0			0
HIST DRYCLEANERS - MN		0.250	0	0				0
HIST FA 2 - MN		SP	0					0
HIST MANIFEST - MN		0.250	0	0				0
HIST UNPERM LF - MN		0.500	0	0	0			0
HIST WIMN - MN		0.500	0	0	0			0
HWS PERMIT - MN		0.500	0	0	0			0
MANIFEST - MN		0.250	0	0				0
MANIFEST_SCOTT COUNTY - MN		0.250	0	0				0
MDA LIC - MN		0.250	0	0				0
MPCA UNPERM LF - MN		0.500	0	0	0			0
NPDES - MN		SP	0					0
PFAS - MN		0.500	0	0	0			0
T 2 - MN		0.250	0	0				0
WIMN - MN		0.500	0	1	8			9

Site Name : LESTER RIVER MEDICAL CLINIC 6351 E SUPERIOR ST | 6351 E Superior St (null) DULUTH | Duluth, MN 55804 Database(s) : [FRS, HWG - MN]

ST. LOUIS

LESTER RIVER MEDICAL CLINIC

6351 E SUPERIOR ST, DULUTH, MN 55804

Envirosite ID: 3522855 EPA ID: N/R

FRS

Facility Name : Facility Address : County :

Site Details

Registry ID : FRS Facility URL : Last Date in Agency List : 110068189374 <u>Click here for hyperlink provided by the agency.</u> 2022-02-17

Source Description

Source Description :

Minnesota's permitting, compliance, and enforcement information management system.

FRS Environmental Interest	
Source and System ID :	

Facility Name :

County :

Site ID :

Active :

HUC 8 :

Latitude :

Longitude :

Activity ID :

Activity Name :

Owner Name :

Program Name :

Watershed Name :

Coordinate Method : Legislative District :

Institutional Control :

Agency Hyperlink :

Last Date in Agency List :

Activity Type Name :

Activity Subtype Name :

Industrial Classification :

Facility Address :

MN-TEMPO - 134735

HWG - MN

Lester River Medical Clinic 6351 E Superior St, Duluth, MN 55804 St. Louis

134735

Y MNS000153239 Lester River Medical Clinic Hazardous Waste Minimal quantity generator Saint Lukes Hospital/Regional Trauma Ctr Hazardous Waste Offices of Physicians Lake Superior - South Address Matching House Number 8 04010102 Ν 46.8406392 -92.0019308 Click here for hyperlink provided by the agency. 2018-04-23

Map Findings

Map Id: A2 Direction: SSW Distance: 0.032 mi., 168 ft. Elevation: 681 ft. Relative: Lower

Site Name : Lester River Medical Clinic 6351 Superior St Duluth, MN Database(s) : [HWG - MN] Envirosite ID: 3617395 EPA ID: N/R

フロフフ

HWG - MN

Facility Name : Facility Address : County :

Site ID : Active : Activity ID : Activity Name : Activity Type Name : Activity Subtype Name : Owner Name : Program Name : Industrial Classification : Watershed Name : Coordinate Method : Legislative District : HUC 8 : Institutional Control : Latitude : Longitude : Agency Hyperlink : Last Date in Agency List : Lester River Medical Clinic 6351 Superior St, Duluth, MN 55804-2545 St. Louis

134735

MNS000153239 Lester River Medical Clinic Hazardous Waste Minimal quantity generator Lester River Medical Clinic Hazardous Waste Offices of Physicians Lake Superior - South Address Matching House Number 8 04010102 Ν 46.8406392 -92.0019308 Click here for hyperlink provided by the agency. 2022-02-07

Map Id: 3 Direction: SSW Distance: 0.082 mi., 433 ft. Elevation: 669 ft. Relative: Lower

Site Name : Hinzmann Residential Mercury Spill | Stacie Hinzmann - Residential Mercury Spill 6304 East Superior St Duluth, MN Database(s) : [HIST SPILLS - MN, SPILLS - MN] Envirosite ID: 3543377 EPA ID: N/R

HIST SPILLS - MN

Facility Name : Facility Address : Hinzmann Residential Mercury Spill 6304 East Superior St, Duluth, MN

Site Details Interest Start Date : Interest End Date : Interest Type : Interest Phone : TMSP Last Update : TMSP Added : Staff ID Last Update : Program ID : Site ID : Preferred ID : Address ID :

2012-08-14 N/R Spill N/R 2012-10-25 13:15:41 2012-08-14 15:43:06 MROSE 63579426 0 84800 63579427

Site Name :	Hinzmann Residential Mercury Spill Stacie Hinzmann - Residential Mercury Spill 6304 East Superior St Duluth, MN
Database(s) :	[HIST SPILLS - MN, SPILLS - MN] (cont.)

Envirosite ID: 3543377 EPA ID: N/R

HIST SPILLS - MN (cont.)

Sp

Township Name :	N/R
Source :	TALES
Active Flag :	N/R

Comments :

Caller contacted the Minnesota Pollution Control Agency (MPCA) directly and reported a spill of mercury from a broken thermometer. The spill resulted from a pet knocking the instrument onto the kitchen floor. The pet then tracked the spilled mercury from the kitchen floor into the living room. The resident has a small child with a compromised immune system and requests assistance from the MPCA. MPCA executes Full-Service Contract and hires a clean up contractor to protect of human health.

Last Date in Agency List :

2017-05-24

oills Summary	
Spill Site Closure Date :	2012-10-26
Spill Reported Date :	2012-08-12
Spill Closure Code :	Response Completed
Spill Reported by Code :	MPCA, ER Staff
Spill Reported by :	Mike Rose
Spill Date :	2012-08-12
Program Int ID :	63579426
Initial Cause Code :	Spill
Initial Cause Description :	Spill
Initial Source Code :	Other
Priority Code :	N/R
Archive Lot :	N/R
Archive Box :	N/R
RPT Taken by Duty Officer Flag :	N/R
Public Safety Spill ID :	36238
Duty Officer Report Number :	128373
Report Taken by Initials :	2829
MPCA Project Manager Initials :	2829
MPCA Involvement :	Significant
REP Name :	Mike Rose
REP Phone :	9132406771

Response Description :

MPCA ERT staff hired West Central Environmental Consultants to: assess mercury contamination; recover any elemental mercury and decontaminate the home as necessary. Mercury air monitors (LUMEX), owned by the MPCA, were were not available for use in the regional offices. ERT staff met with contractor staff at the home and confirmed air space and traffic areas were below residential limits. HgX product applied to hard wood floor surface as a precautionary measure.

Facility Name : Facility Address : Stacie Hinzmann - Residential Mercury Spill 6304 East Superior St, Duluth, MN Map ld: 3 Direction: SSW Distance: 0.082 mi., 433 ft. Elevation: 669 ft. Relative: Lower

Site Name :	Hinzmann Residential Mercury Spill Stacie Hinzmann - Residential Mercury Spill 6304 East Superior St Duluth, MN	
Database(s) :	[HIST SPILLS - MN, SPILLS - MN] (cont.)	

Envirosite ID: 3543377 EPA ID: N/R

HIST SPILLS - MN (cont.)

Site Details Interest Start Date : Interest End Date : Interest Type : Interest Phone : TMSP Last Update : TMSP Added : Staff ID Last Update : Program ID : Site ID : Preferred ID : Address ID : Township Name : Source : Active Flag :	2012-08-14 N/R Spill N/R 2012-09-13 11:20:10 2012-08-14 15:40:56 MROSE 63579424 0 84799 63579427 N/R TALES N/R
Comments :	Caller reporting a broken mercury thermometer released mercury in the home. Resident has a small child. MPCA hired a clean up contractor to be protective of human health.
Last Date in Agency List :	2017-05-24
Spills Summary Spill Site Closure Date : Spill Reported Date : Spill Closure Code : Spill Reported by Code : Spill Date : Program Int ID : Initial Cause Code : Initial Cause Description : Initial Source Code : Priority Code : Archive Lot : Archive Box : RPT Taken by Duty Officer Flag : Public Safety Spill ID : Duty Officer Report Number : Report Taken by Initials : MPCA Project Manager Initials : MPCA Involvement : REP Name : REP Phone :	2012-08-20 2012-08-07 Closed, Other (See Remarks) MPCA, ER Staff N/R 2012-06-20 63579424 Spill Spill Other N/R N/R N/R N/R N/R N/R N/R N/R
Response Description :	Refer to MPCA Spill #84800 for response summary associated with this incident.

SPILLS - MN

Facility Address : County : 6304 East Superior St, Duluth, MN St. Louis Map ld: 3 Direction: SSW Distance: 0.082 mi., 433 ft. Elevation: 669 ft. Relative: Lower

Site Name :	Hinzmann Residential Mercury Spill Stacie Hinzmann - Residential Mercury Spill 6304 East Superior St Duluth, MN
Database(s) :	[HIST SPILLS - MN, SPILLS - MN] (cont.)

Envirosite ID: 3543377 EPA ID: N/R

SPILLS - MN (cont.)

Site Details Incident Date : Incident Status : Incident ID : Incident Type : Program : Substances : Closure Type : Location Description : Duty Officer Number : Lead Investigator : Agency Interest ID Source : Source Name : Source Address : Coordinate Method : Latitude : Longitude : Last Date in Agency List :	2012-06-20 Closed or Completed 84799 Spill or Release Emergency Response small amounts Mercury Response/Action Completed 6304 East Superior St MN N/R Mike Rose N/R Stacie Hinzmann 5429 McDonnel Road, Duluth, MN N/R N/R N/R N/R N/R 2022-04-12
Incident Substance Incident ID : Parameter : Quantity : Units :	84799 N/R N/R N/R
Site Details Incident Date : Incident Status : Incident ID : Incident Type : Program : Substances : Closure Type : Location Description : Duty Officer Number : Lead Investigator : Agency Interest ID Source : Source Name : Source Address : Coordinate Method : Latitude : Longitude : Last Date in Agency List :	2012-08-12 Closed or Completed 84800 Spill or Release Emergency Response small amounts Mercury Response/Action Completed 6304 East Superior St MN 128373 Mike Rose 211258 Hinzmann Residential Mercury Spill 6304 East Superior St, Duluth, MN N/R N/R N/R 2022-04-12
Incident Substance Incident ID : Parameter : Quantity : Units :	84800 N/R N/R N/R

Site Name :	US EPA - MED-DULUTH Evironmental Research Laboratory-duluth US EPA - GLTED 6201 CONGDON BLVD 6201 CONGDON BLVD T50N R13W SEC 4 ST LOUIS CTY 6201 CONGDON BOULEVARD NATIONAL HEALTH & ENVIRONMENTAL EFFECT RESEARCH LABORATORY Duluth DULUTH, MN
Database(s) :	[WIMN - MN]

Envirosite ID: 3467736 EPA ID: N/R

WIMN - MN

Facility Name : Facility Address : County :

Site Details Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Activity Details Program Name : Activity Type : Activity ID :

Industrial Classification :

Active :

Owner Details Owner Name : US EPA - MED-Duluth 6201 Congdon Blvd, Duluth, MN 55804-2558 St. Louis

2425 N/R No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.83804984 -92.0013041 Address Matching House Number 2022-02-09

Tanks Underground Tanks TS0005020

Testing Laboratories; Administration of Air and Water Resource and Solid Waste Management Programs

Yes

Us Environmental Protection Agency

Map Id: 5 Direction: WSW Distance: 0.262 mi., 1383 ft. Elevation: 666 ft. Relative: Lower

Site Name : LESTERWOOD APARTMENTS 6025 E SUPERIOR ST Duluth | DULUTH, MN 55804 Database(s) : [WIMN - MN] Envirosite ID: 3441676 EPA ID: N/R

WIMN - MN

Facility Name : Facility Address : Lesterwood Apartments 6025 E Superior St, Duluth, MN 55804

Map Findings

Elevation: 66	62 mi., 1383 ft. 6 ft.	Site Name :	LESTERWOOD APARTMENTS 6025 E SUPERIOR ST Duluth DULUTH, MN 55804	Envirosite ID: 3441676 EPA ID: N/R
Relative: Low	er	Database(s) :	[WIMN - MN] (cont.)	
WIMN - MN (cont)			
vviiviivi - iviiv (Ch. Louis	
	County :		St. Louis	
Site D	Details Site ID : Activity Subtype Name Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection M Last Date in Agency Lis	lethod :	108245 N/R No Lake Superior - South <u>Click here for hyperlink provided by the ager</u> 46.8388572 -92.0080685 Address Matching House Number 2022-02-09	<u>ісу.</u>
Activi	ty Details Program Name : Activity Type : Activity ID : Industrial Classification Active :	:	Tanks Underground Tanks TS0020677 N/R No	
Owne	r Details Owner Name :		Fred Chez	
Map Id: B6 Direction: WSW Distance: 0.326 mi., 1724 ft. Elevation: 664 ft. Relative: Lower		Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN	Envirosite ID: 42966738 EPA ID: N/R
		Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN]	
EPA LUST				
	Facility Name : Facility Address : County :		l C O Lester Park 5931 E Superior St, Duluth, Minnesota 55804 St. Louis	i da serie de la constante de la const
	Facility ID : LUST ID : Reported Date : Status : Substance : Closed With Residual C (Tribal Only):	ontamination	MN26410 MNLS0015815 2004-08-23 No Further Action Hydraulic Fluid N/R	

2022

Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 42966738 EPA ID: N/R

EPA LUST (cont.)

NFA_Letter (Tribal Only) : Tribe (Tribal Only) : EPA Region : Estimated Population within 1500ft : Estimated Private Domestic Wells within 1500ft: Within Source Water Protection Area (SPA): SPA Public Water System and Facility ID: SPA Water Type : SPA HUC12 : Within Groundwater Wellhead Protection Area (WHPA): WHPA Public Water System and Facility ID: WHPA Water Type : WHPA Water Type : WHPA Facility Type : WHPA HUC12 : Within Estimated 100-year Floodplain: Latitude : Longitude : Last Date in Agency List :	N/R 5 672 2 No N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Facility ID : LUST ID : Reported Date : Status : Substance : Closed With Residual Contamination (Tribal Only): NFA_Letter (Tribal Only) : Tribe (Tribal Only) : EPA Region : Estimated Population within 1500ft : Estimated Private Domestic Wells within 1500ft: Within Source Water Protection Area (SPA): SPA Public Water System and Facility ID: SPA HUC12 : Within Groundwater Wellhead Protection Area (WHPA): WHPA Public Water System and Facility ID: WHPA Water Type : WHPA Public Water System and Facility ID: WHPA Auter Type : WHPA Facility Type : WHPA HUC12 : Within Estimated 100-year Floodplain: Latitude : Longitude : Last Date in Agency List :	MN26410 MNLS0010955 1997-11-11 No Further Action Hydraulic Fluid N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R

Map Id: B6 Direction: WSW Distance: 0.326 mi., 1724 ft. Elevation: 664 ft. Relative: Lower	Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN	Envirosite ID: 42966738 EPA ID: N/R
	Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)	
HIST LUST - MN			
Facility Name : Facility Address :		Former Lester Park Service 5931 E Superior St, Duluth, MN 55804-2536	
Site Details Interest Start Date :		2004-08-25	
Interest End Date :		2006-12-06 07:31	
Interest Phone :		NO CORE PI PH.	
Interest Type :		Leak Site	
TMSP Last Update :		2014-11-10 08:17	
TMSP Added :		2006-12-06 07:31	
Program ID : Site ID :		298293 22935	
Preferred ID :		15815	
Address ID :		32935	
Township Name :		N/R	
Staff ID Last Update :		RGAGLE	
Source :		CORE	
Active Flag :		N	
Comments : Last Date in Agency Li:	ct ·	N/R 2017-10-11	
Last Date III Agency Li	51.	2017-10-11	
Leak Site Summary			
Release Discovered Da	ate :	2004-08-23	
Leak Report Date :		2004-08-24	
Enforcement Action Be		2004-08-31	
Complete Site Closure TMSP Last Update :	Date :	2004-11-22 2008-05-27 12:15	
TMSP Last opdate . TMSP Added :		2008-03-27 12:13	
Leak Site Type Code :		Leak site (tank and petroleum contamination).	
Staff ID Last Update :		KMUSTON	
File Archive Box :		N/R	
File Archive Lot :		N/R	
CU YDS Excavated Qua Soil Dig Out Date :	antity :	460 2004-08-24	
STD Letter Response D)ate ·	2004-08-24	
COND Closure Date :		N/R	
LUST Trust Eligible Flag	g :	N	
REIMB Awarded Flag :		Ν	
Utility Project Flag :		N	
Tank REG Status Code		Non-regulated	
Sub Slab Sample Colle Indoor Air Collected Fla		N/R N/R	
Contaminated Soils Re		Y	
Surface Water Impact		N	
Offsite Contamination	Flag :	Ν	
Residence Type Code :		N/R	
Release from AST Flag		N	
Release from UST Flag		Y	
Vapor Intrusion Checke Date:		N/R	
Vapor Intrusion Checke	ed Acres :	N/R	
		,	

Page 29 of 160

Map ld: B6 Direction: WSW Distance: 0.326 mi., 1724 ft. Elevation: 664 ft. Relative: Lower	Site Name : Database(s) :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN [EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] <i>(cont.)</i>
HIST LUST - MN (cont.)		
Vapor Intrusion Checked Flag : Vapor Intrusion Action Flag : Vapor Intrusion Comments : Soil Gas Data Collected Flag : Soil Gas Action Level Flag : Soil Gas Data Comments :		N/R N/R N/R N/R N/R
Facility Name : Facility Address :		Lester Park Service 5931 E Superior St, Duluth, MN 55804-2536
Site Details Interest Start Date : Interest End Date : Interest Phone : Interest Type : TMSP Last Update : TMSP Added : Program ID : Site ID : Preferred ID : Address ID : Township Name : Staff ID Last Update : Source : Active Flag : Comments : Last Date in Agency Lis	t :	1999-07-01 2000-06-22 00:00 NO CORE PI PH. Leak Site 2013-03-19 13:26 2006-11-30 06:52 223379 22935 10955 32935 N/R RSUCHAN CORE N N/R 2017-10-11
Leak Site Summary Release Discovered Date Leak Report Date : Enforcement Action Bee Complete Site Closure I TMSP Last Update : TMSP Added : Leak Site Type Code : Staff ID Last Update : File Archive Box : File Archive Lot : CU YDS Excavated Qua Soil Dig Out Date : STD Letter Response D COND Closure Date : LUST Trust Eligible Flag REIMB Awarded Flag : Utility Project Flag : Tank REG Status Code Sub Slab Sample Collecc Indoor Air Collected Fla	gin Date : Date : ntity : ate : : : : ted Flag : g :	1997-11-11 1997-11-11 1997-11-19 2000-06-22 2008-05-27 12:13 1999-12-04 14:03 Leak site (tank and petroleum contamination). KMUSTON N/R N/R N/R N/R N/R Y N N Federal N/R N/R N/R U

2022

Envirosite ID: 42966738 EPA ID: N/R

Page 30 of 160

Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 42966738 EPA ID: N/R

HIST LUST - MN (cont.)

	Surface Water Impact Flag : Offsite Contamination Flag : Residence Type Code : Release from AST Flag : Release from UST Flag : Vapor Intrusion Checked Application Date: Vapor Intrusion Checked Acres : Vapor Intrusion Checked Flag : Vapor Intrusion Action Flag : Vapor Intrusion Action Flag : Soil Gas Data Collected Flag : Soil Gas Action Level Flag : Soil Gas Data Comments :	U U N/R N N N/R N/R N/R N/R N/R N/R N/R N/R
LUST - MN		
	Facility Name : Facility Address : County :	Former Lester Park Service 5931 E Superior St, Duluth, MN 55804 St. Louis
Site [Details	
	ltem ID : Site ID :	26410-AREA0000000002 LS0015815
	Site Type :	Leak Site
	AI ID :	26410
	Al Name :	I C O Lester Park
	Acreage :	N/R
	Hydro : Project Manager :	N/R Gary Zarling (former)
	Status :	Closed
	Listed on the NPL? :	No
	Listed on the PLP? :	No
	A petroleum brownfield? :	No
	A non-petroleum brownfield? :	No
	Listed on EPA's CERCLIS/SEMS list? : An unpermitted dump? :	No No
	Are there institutional controls? :	No
	Hazard Ranking System Score :	N/R
	Year for the HRS Score :	N/R
	Congressional District :	8
	House District : Senate District :	7A 7
	HUC8 ID :	/ 04010102
	HUC8 Name :	Lake Superior - South
	HUC10 ID :	0401010204
	HUC12 ID :	040101020403
	HUC12 Name :	Amity Creek
	DW SMA Code : DW SMA Name :	N/R N/R
	Fed Regulated :	NO
	Fed State Regulated :	No
	State Regulated :	No

Site Name : I C O LESTER PARK | Former Lester Park Service | Lester Park Service 5931 E SUPERIOR ST Duluth | DULUTH, MN Database(s) : [EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 42966738 EPA ID: N/R

2022

LUST - MN (cont.)

Not Regulated : SF Voluntary :	Yes No
Coordinate Collection Method :	Digitized-DOQ
Location Description :	Site Center
Latitude :	46.83857
Longitude :	-92.009613
WIMN Link :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2022-03-16

Activity Details

Activity ID :
Activity Description :
Activity Class :
Activity Year :
Activity Number :
Site Closed :
Site Start Date :
Site Discover Date :
Leak Discovered :
Leak Reported :
Leak Reopened Date :
Date Received :
Site Listed on PLP :
Site Delisted from PLP :
Site Listed on NPL :
Site Deleted from NPL :
Fund Finance Approved :
Fund Finance Closed :
Assessment Completed :
Investigation Completed :
No Further Action Decision :
Remedy Implemented :
Remedy Selected :
Staff Assign Date :
App Completed Date :
ER Site Eval Date :

Facility Name : Facility Address : County :

Site Details

Item ID : Site ID : Site Type : AI ID : AI Name : Acreage : Hydro : Project Manager :

SIW20040001 Leak Site Investigation SIW 2004 1 2004-11-22 2004-08-24 N/R 2004-08-23 2004-08-24 N/R Lester Park Service

5931 E Superior St, Duluth, MN 55804 St. Louis

26410-AREA000000001 LS0010955 Leak Site 26410 I C O Lester Park N/R N/R Steve Leppala (no longer at MPCA)

Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

LUST - MN (cont.)

Status : Listed on the NPL? : Listed on the PLP? : A petroleum brownfield? : Listed on EPA's CERCLIS/SEMS list? : An unpermitted dump? : Are there institutional controls? : Hazard Ranking System Score : Year for the HRS Score : Congressional District : House District : Senate District : HUC8 ID : HUC12 ID : HUC12 ID : HUC12 Name : DW SMA Code : DW SMA Name : Fed Regulated : Fed State Regulated : State Regulated : State Regulated : SF Voluntary : Coordinate Collection Method : Location Description : Latitude : Longitude : WIMN Link : Last Date in Agency List :	Closed No No No No No No No N/R N/R 7 7 04010102 Lake Superior - South 0401010204 0401010204 040101020403 Amity Creek N/R N/R Yes No No No No Digitized - MPCA internal map N/R 46.838596 -92.009451 <u>Click here for hyperlink provided by the agency.</u> 2022-03-16
ty Details Activity ID : Activity Description :	SIW19970001 Leak Site Investigation

Activity Activity Description : Activity Class : Activity Year : Activity Number : Site Closed : Site Start Date : Site Discover Date : Leak Discovered : Leak Reported : Leak Reopened Date : Date Received : Site Listed on PLP : Site Delisted from PLP : Site Listed on NPL : Site Deleted from NPL : Fund Finance Approved : Fund Finance Closed : Assessment Completed : Investigation Completed :

Leak Site Investigation SIW 1997 1 2000-06-22 1997-11-11 N/R 1997-11-11 1997-11-11 N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R

Envirosite ID: 42966738 EPA ID: N/R

Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

LUST - MN (cont.)

No Further Action Decision :	N/R
Remedy Implemented :	N/R
Remedy Selected :	N/R
Staff Assign Date :	N/R
App Completed Date :	N/R
ER Site Eval Date :	N/R

WIMN - MN

Facility Name : Facility Address : County :

Site Details Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Activity Details Program Name : Activity Type : Activity ID : Industrial Classification : Active :

> Program Name : Activity Type : Activity ID : Industrial Classification : Active :

I C O Lester Park 5931 E Superior St, Duluth, MN 55804-2536 St. Louis

26410 N/R No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8381241 -92.0101821 Address Matching House Number 2022-02-09

26410 Leak Site No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8381241 -92.0101821 Address Matching House Number 2022-02-09

Investigation and Cleanup Petroleum Remediation LS0010955 N/R No

Investigation and Cleanup Petroleum Remediation LS0015815 N/R No Envirosite ID: 42966738 EPA ID: N/R Map Id: B6 Direction: V Distance Elevatio Relative

Site Name :	I C O LESTER PARK Former Lester Park Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN	Envirosite I
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)	
:	Tanks Underground Tanks TS0014657 N/R No	
	Jay Pederson	
Site Name :	LESTER PARK LAUNDROMAT Lester Park Soil Vapor 5927 E SUPERIOR ST DULUTH Duluth, MN	Envirosite
Database(s) :		
	Lester Park Soil Vapor 5927 E Superior St, Duluth, MN 55804 St. Louis	
l? : ifield? : S/SEMS list? :	40838-AREA000000001 SA0004577 Site Assessment Site 40838 Lester Park Laundromat N/R N/R Mark Elliott (former) Closed No No No No No	
	Database(s) : : Site Name : Database(s) : ?: field? :	Service Lester Park Service 5931 E SUPERIOR ST Duluth DULUTH, MN Database(s) : [EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.) Tanks Underground Tanks TS0014657 N/R No Jay Pederson Site Name : LESTER PARK LAUNDROMAT Lester Park Soil Vapor 5927 E SUPERIOR ST DULUTH Duluth, MN Database(s) : [MPCA SITE ASSESSMENT - MN, SHWS - MN, WIMN - MN] Lester Park Soil Vapor 5927 E Superior St, Duluth, MN 55804 St. Louis Lester Park Soil Vapor Site Assessment Site 40838-AREA0000000001 SA0004577 Site Assessment Site 40838 Lester Park Laundromat N/R N/R N/R N/R N/R N/R N/R N/R

Envirosite ID: 42966738 EPA ID: N/R

2022

WIMN -

Map Id: Directio Distance Elevatio Relative site ID: 3474611 EPA ID: N/R

MPCA S

An unpermitted dump? : Are there institutional controls? : Hazard Ranking System Score : Year for the HRS Score : Congressional District : House District : Senate District :

No No N/R N/R 8 3B 3

Site Name :	LESTER PARK LAUNDROMAT Lester Park Soil Vapor 5927 E SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[MPCA SITE ASSESSMENT - MN, SHWS - MN, WIMN - MN] (cont.)

Envirosite ID: 3474611 EPA ID: N/R

MPCA SITE ASSESSMENT - MN (cont.)

HUC8 ID : HUC8 Name : HUC10 ID : HUC12 ID : HUC12 Name : DW SMA Code : DW SMA Name : Fed Regulated : Fed State Regulated : State Regulated : Not Regulated : SF Voluntary : Coordinate Collection Method : Location Description : Latitude : Lonaitude : WIMN Link : Last Date in Agency List : Activity Details Activity ID : Activity Description : Activity Class : Activity Year : Activity Number : Site Closed : Site Start Date : Site Discover Date : Leak Discovered : Leak Reported : Leak Reopened Date : Date Received : Site Listed on PLP : Site Delisted from PLP : Site Listed on NPL : Site Deleted from NPL : Fund Finance Approved : Fund Finance Closed : Assessment Completed :

Investigation Completed :

Remedy Implemented :

App Completed Date :

Remedy Selected :

Staff Assign Date :

ER Site Eval Date :

No Further Action Decision :

04010102 Lake Superior - South 0401010204 040101020402 Talmadge Creek-Frontal Lake Superior N/R N/R No No No No No Public Land Survey-Two Quarter

Vicinity of 5900 to 6000 block of East Superior Street in the Lester Park area of Duluth, MN. Low concentrations of CVOC vapors were detected in 2 soil borings at different location along this block near a former dry cleaning site.

46.911125 -91.944571 <u>Click here for hyperlink provided by the agency.</u> 2022-03-14

SIW20120001 Site Assessment Investigation SIW 2012 1 2009-10-21 2009-10-21 N/R N/R N/R N/R 2009-10-21 N/R N/R

Map Id: B7 Direction: WSW Distance: 0.342 mi., 1804 ft. Elevation: 666 ft. Relative: Lower

Site Name :	LESTER PARK LAUNDROMAT Lester Park Soil Vapor 5927 E SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[MPCA SITE ASSESSMENT - MN, SHWS - MN, WIMN - MN] (cont.)

SHWS - MN

Facility Name : Facility Address : County :

Site ID : Active : Activity ID : Activity Name : Activity Type Name : Activity Subtype Name : Owner Name : Program Name : Industrial Classification : Watershed Name : Coordinate Method : Legislative District : HUC 8 : Institutional Control : Latitude : Longitude : Agency Hyperlink : Last Date in Agency List :

WIMN - MN

Facility Name : Facility Address : County :

Site Details Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Activity Details Program Name : Activity Type : Activity ID : Industrial Classification : Active : Lester Park Laundromat 5927 E Superior St, Duluth, MN 55804 St. Louis

57743

Ν SA4577 Lester Park Soil Vapor State Assessment Site N/R Lester Park Laundromat Investigation & Cleanup N/R Lake Superior - South Address Matching House Number 7A 4010102 N/R 46.83818829 -92.01032339 Click here for hyperlink provided by the agency. 2017-03-25

Lester Park Laundromat 5927 E Superior St, Duluth, MN 55804-2536 St. Louis

40838 N/R No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8381095 -92.0102318 Address Matching House Number 2022-02-09

Investigation and Cleanup Site Assessment SA0004577 N/R No Envirosite ID: 3474611 EPA ID: N/R

2022

Map Id: B7 Direction: WSW Distance: 0.342 mi., 1804 ft. Elevation: 666 ft. Relative: Lower

Site Name :	LESTER PARK LAUNDROMAT Lester Park Soil Vapor 5927 E SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[MPCA SITE ASSESSMENT - MN, SHWS - MN, WIMN - MN] (cont.)

Envirosite ID: 3474611 EPA ID: N/R

WIMN - MN (cont.)

Owner Details Owner Name :

N/R

Map Id: B8 Direction: WSW Distance: 0.345 mi., 1822 ft. Elevation: 660 ft. Relative: Lower

Site Name :LESTER PARK SKELLY | Atkinson Service
Station | Jims Lester Park Skelly
5930 E SUPERIOR ST
Duluth | DULUTH, MN 55804Database(s) :[EPA LUST, HIST LUST - MN, LUST - MN,
WIMN - MN]

Envirosite ID: 43016694 EPA ID: N/R

EPA LUST

Facility Name : Facility Address : County :	Lester Park Skelly 5930 E Superior St, Duluth, Minnesota 55804 St. Louis
Facility ID : LUST ID : Reported Date : Status : Substance : Closed With Residual Contamination	MN23367 MNLS0000058 1986-12-08 No Further Action Diesel Fuel
(Tribal Only):	N/R
NFA_Letter (Tribal Only) :	N/R
Tribe (Tribal Only) :	N/R
EPA Region :	5
Estimated Population within 1500ft :	612
Estimated Private Domestic Wells within	2
1500ft:	2
Within Source Water Protection Area	No
(SPA): SPA Public Water System and Facility ID:	NG N/B
SPA Water Type :	N/R
SPA Facility Type :	N/R
SPA HUC12 :	N/R
Within Groundwater Wellhead Protection	
Area (WHPA):	No
WHPA Public Water System and Facility	
ID:	N/R
WHPA Water Type :	N/R
WHPA Facility Type :	N/R
WHPA HUC12 :	N/R
Within Estimated 100-year Floodplain:	No
Latitude :	46.83807
Longitude :	-92.0092899999999
Last Date in Agency List :	2022-04-22

Marchill DO			
Map Id: B8 Direction: WSW Distance: 0.345 mi., 1822 ft. Elevation: 660 ft. Relative: Lower	Site Name :	LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly 5930 E SUPERIOR ST Duluth DULUTH, MN 55804	Envirosite ID: 43016694 EPA ID: N/R
	Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)	
HIST LUST - MN			
Facility Name : Facility Address :		Atkinson Service Station 5930 E Superior St, Duluth, MN 55804	
Cito Dataila			
Site Details Interest Start Date :		1994-07-05	
Interest End Date :		2006-03-23 13:20	
Interest Phone :		NO CORE PI PH.	
Interest Type :		Leak Site	
TMSP Last Update :		2014-11-10 08:17	
TMSP Added :		2006-03-23 13:20	
Program ID :		213076	
Site ID :		23099	
Preferred ID :		58	
Address ID :		33099	
Township Name : Staff ID Last Update :		N/R RGAGLE	
Source :		CORE	
Active Flag :		N	
Comments :		N/R	
Last Date in Agency Li	st :	2017-10-11	
Leak Site Summary	- +	1006 10 00	
Release Discovered Da	ate :	1986-12-08	
Leak Report Date : Enforcement Action Be	ngin Dato :	1986-12-08 1986-12-11	
Complete Site Closure		1990-04-01	
TMSP Last Update :	Dute .	2012-04-25 16:11	
TMSP Added :		1999-12-04 14:03	
Leak Site Type Code :		Leak site (tank and petroleum contamination).	
Staff ID Last Update :		JDIETZ	
File Archive Box :		01	
File Archive Lot :	a a bland a	94/372	
CU YDS Excavated Qu	antity :	50	
Soil Dig Out Date : STD Letter Response I	Dato :	1987-10-05 N/R	
COND Closure Date :	Jale .	N/R	
LUST Trust Eligible Fla	a :	Y	
REIMB Awarded Flag :	5	Ν	
Utility Project Flag :		Ν	
Tank REG Status Code		Federal	
Sub Slab Sample Colle		N/R	
Indoor Air Collected Fl		N/R Y	
Contaminated Soils Re Surface Water Impact		l U	
Offsite Contamination		N	
Residence Type Code		N/R	
Release from AST Flag		N	
Release from UST Flag		N	
Vapor Intrusion Check			
Date:		N/R	
Vapor Intrusion Check	ed Acres :	N/R	

Map Id: B8 Direction: WSW Distance: 0.345 mi., 1822 ft. Elevation: 660 ft. Relative: Lower	Site Name :	LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly 5930 E SUPERIOR ST Duluth DULUTH, MN 55804	Envirosite ID: 43016694 EPA ID: N/R
	Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)	
]
HIST LUST - MN (cont.)			
Vapor Intrusion Checke		N/R	
Vapor Intrusion Action Vapor Intrusion Comm		N/R N/R	
Soil Gas Data Collected		N/R	
Soil Gas Action Level F	lag :	N/R	
Soil Gas Data Commer	its :	N/R	
LUST - MN			
Facility Name :		Atkinson Service Station	
Facility Address : County :		5930 E Superior St, Duluth, MN 55804 St. Louis	
councy .		St. Louis	
Site Details			
Item ID :		23367-AREA000000001	
Site ID : Site Type :		LS0000058 Leak Site	
AI ID :		23367	
Al Name :		Lester Park Skelly	
Acreage : Hydro :		N/R N/R	
Project Manager :		Chris Zadak (former)	
Status :		Closed	
Listed on the NPL? : Listed on the PLP? :		No No	
A petroleum brownfield	d?:	No	
A non-petroleum brow		No	
Listed on EPA's CERCL		No No	
Are there institutional		No	
Hazard Ranking Syster	m Score :	N/R	
Year for the HRS Score Congressional District		N/R 8	
House District :	•	7A	
Senate District :		7	
HUC8 ID : HUC8 Name :		04010102 Lake Superior - South	
HUC10 ID :		0401010204	
HUC12 ID :		040101020405	
HUC12 Name : DW SMA Code :		City of Duluth-Frontal Lake Superior N/R	
DW SMA Name :		N/R	
Fed Regulated :		Yes	
Fed State Regulated : State Regulated :		No No	
Not Regulated :		No	
SF Voluntary :	4 - 4 h 1	No Disitisa da MDCA internal marca	
Coordinate Collection I Location Description :	Method :	Digitized - MPCA internal map N/R	
Latitude :		46.83807	
Longitude :		-92.009295	
WIMN Link : Last Date in Agency Li	st ·	Click here for hyperlink provided by the age 2022-03-16	ency.

Map Id: B8 Direction: WSW Distance: 0.345 mi., 1822 ft. Elevation: 660 ft. Relative: Lower

Site Name :	LESTER PARK SKELLY Atkinson Service Station Jims Lester Park Skelly 5930 E SUPERIOR ST Duluth DULUTH, MN 55804
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 43016694 EPA ID: N/R

LUST - MN (cont.)

WIMN -

Activity Details		
Activity		SIW19860001
	Description :	Leak Site Investigation
Activity	Class :	SIW
Activity	Year :	1986
Activity	Number :	1
Site Clos	sed :	1990-04-01
Site Star	t Date :	1986-12-08
Site Disc	cover Date :	N/R
Leak Dis	scovered :	1986-12-08
Leak Rep	•	1986-12-08
	opened Date :	N/R
Date Re		N/R
	ed on PLP :	N/R
	isted from PLP :	N/R
	ed on NPL :	N/R
	eted from NPL :	N/R
	nance Approved :	N/R
	nance Closed : nent Completed :	N/R N/R
	ation Completed :	N/R
	ner Action Decision :	N/R
	Implemented :	N/R
	Selected :	N/R
	sign Date :	N/R
	npleted Date :	N/R
	Eval Date :	N/R
I - MN		
.		
Facility N		Lester Park Skelly
	Address :	5930 E Superior St, Duluth, MN 55804 St. Louis
County :		St. Louis
Site Details		22267
Site ID :		23367
	Subtype Name : onal Control :	N/R No
Watersh		
	Hyperlink :	Lake Superior - South Click here for hyperlink provided by the agency.
Latitude		46.8379911
Longitud		-92.0100988
	ate Collection Method :	Address Matching House Number
	e in Agency List :	2022-02-09
Site ID :		23367
,	Subtype Name :	Leak Site
	onal Control :	No
Watersh		Lake Superior - South
	Hyperlink :	Click here for hyperlink provided by the agency.
Latitude Longitud		46.8379911 -92.0100988
Longitud		-22.0100200

Map Id: B8 Direction: WSW Distance: 0.345 mi., 1822 ft. Elevation: 660 ft. Relative: Lower

Site Name : LESTER PARK SKELLY | Atkinson Service Station | Jims Lester Park Skelly 5930 E SUPERIOR ST Duluth | DULUTH, MN 55804 Database(s) : [EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.) Envirosite ID: 43016694 EPA ID: N/R

WIMN - MN (cont.)

Coordinate Collection Method : Last Date in Agency List :

Activity Details Program Name : Activity Type : Activity ID : Industrial Classification : Active :

> Program Name : Activity Type : Activity ID : Industrial Classification : Active :

Owner Details Owner Name : Address Matching House Number 2022-02-09

Investigation and Cleanup Petroleum Remediation LS0000058 Gasoline Stations with Convenience Stores No

Tanks Underground Tanks TS0005270 Gasoline Stations with Convenience Stores No

James L Atkinson

Map Id: 9 Direction: NNE Distance: 0.355 mi., 1874 ft. Elevation: 828 ft. Relative: Higher

Site Name : LESTER PARK GOLF COURSE | DULUTH CITY OF - LESTER GOLF | LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth | DULUTH, MN Database(s) : [AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG -MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN -MN]

Envirosite ID: 42994676 EPA ID: N/R

AG LICENSES - MN

Facility Name : Facility Address : County :

Expiration Date : License Number : License Type : Relationship : LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD, DULUTH, MN 55804 SAINT LOUIS

2018-12-31 20112967 NON-COMMERCIAL PESTICIDE APPLICATOR EMPLOYER

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

2022

AG_LICENSES - MN (cont.)

Last Date in Agency List :

Item Compartment :

AI ID :

Tank Site ID :

AST - MN

Phone Number :	N/R
Last Date in Agency List :	2020-02-06
Facility Name :	Lester Park Golf Course
Facility Address :	1860 Lester River Rd, Duluth, MN 55804
County :	St. Louis
Item Compartment : AI ID : Tank Site ID : Item ID : SI Type : SI Designation : SI Description : Compartment Number : Capacity (Gallon) : Substance : Tank Wall Type : Tank Material : Overfill Prevention System : Installation Date : Last Update : Tank Status : Tank Status : Tank Contractor : Owner Name : Owner Address : Programs : Cathodic Protection System : Tank Leak Detection :	42034-EQUI000000003-1 42034 TS0005358 42034-EQUI0000000003 Aboveground Storage Tank 2 N/R 1 500 Diesel Fuel Double Carbon steel AST None 1994-09-15 1994-11-01 Active N/R Enger Golf Course 1801 W Skyline Blvd AT N/R
Special Use Description :	N/R
Vapor Recovery :	N/R
Coord Collection Method :	Address Matching House Number
Pipe Wall :	N/R
Pipe Material :	N/R
Location Description : Pipe Leak Detection : Pipe Corrosion Protection : Latitude : Longitude : Tank URL :	N/R N/R 46.857975 -91.999024 <u>Click here for hyperlink provided by the a</u>

<u>Click here for hyperlink provided by the agency.</u> 2022-03-22

42034-EQUI000000004-1 42034 TS0005358

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

AST - MN (cont.)

Item ID : SI Type : SI Designation : SI Description : **Compartment Number :** Capacity (Gallon) : Substance : Tank Wall Type : Tank Material : Overfill Prevention System : Installation Date : Last Update : Tank Status : Tank Contractor : Owner Name : **Owner Address :** Programs : Cathodic Protection System : Tank Leak Detection : Special Use Description : Vapor Recovery : Coord Collection Method : Pipe Wall : Pipe Material : Location Description : Pipe Leak Detection : Pipe Corrosion Protection : Latitude : Longitude : Tank URL : Last Date in Agency List :

ECHO

Facility Name : Facility Address : County :

Last Inspection Date : Registry ID : FIPS Code : EPA Region : Inspection Count : Last Inspection Days : Informal Count : Last Informal Action Date : Formal Action Count : Last Formal Action Date :

42034-EQUI000000004 Aboveground Storage Tank 1 N/R 1 500 Gasoline Blends (E1-E49) Double Carbon steel AST None 1994-09-15 1994-11-01 Active N/R Enger Golf Course 1801 W Skyline Blvd AT N/R N/R N/R N/R Address Matching House Number N/R N/R N/R N/R N/R 46.857975 -91.999024 Click here for hyperlink provided by the agency. 2022-03-22

DULUTH CITY OF - LESTER GOLF 1860 LESTER RIVER RD, DULUTH, MN 55804 ST LOUIS

N/R 110003844010 27137 05 0 N/R 0 N/R 0 N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

ECHO (cont.)

Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	ADDRESS MATCHING-HOUSE NUMBER
Collection Method :	CENTER OF A FACILITY OR STATION
Reference Point :	30
Accuracy Meters :	Minnesota Chippewa Tribe, Minnesota (Fond du Lac Band) - 5.9 mile(s),
Derived Tribes :	Minnesota Chippewa Tribe, Minnesota (Fond du Lac Band) - 21.9 mile(s)
Derived HUC : Derived WBD : Derived STCTY FIPS : Derived CD113 : Derived CD113 : Derived CB2010 : MYRTK Universe : NPDES IDS : CWA Permit Types : CWA Compliance Tracking : CWA Compliance Tracking : CWA AICS : CWA SICS : CWA Inspection Count : CWA SICS : CWA Inspection Count : CWA Last Inspection Days : CWA Informal Count : CWA Last Inspection Days : CWA Informal Action Count : CWA Last Formal Action Date : CWA Last Penalty Date : CWA Last Penalty Date : CWA Last Penalty Amount : CWA Quarters IN NC : CWA Current Compliance Status : CWA Current SNC Flag : CWA 13 Quarters Compliance Status : CWA 13 Quarters Effluent Exceedances: CWA Three-Year QNCR Codes : DFR URL : Facility SIC : Facility Last Inspection EPA Date : Facility Last Inspection State Date : Facility Last Formal Act EPA Date : Facility Last Formal Act State Date : Facility Last Informal Act EPA Date :	04010102 040101020404 27137 55804 08 271370002004028 NNN N/R N/R N/R N/R N/R N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

ECHO (cont.)

EPA LUST

Facility Last Informal Act State Date: Facility Federal Agency : TRI Reporter : Facility Imp Water Flag : Current SNC Flag : Indian County Flag : Federal Flag : US Mexico Border Flag : Chesapeak Bay Flag : AIR Flag : NPDES Flag : SDWIS Flag : RCRA Flag : TRI Flag : GHG Flag : Major Flag : Active Flag : NAA Flag : Latitude : Longitude : Last Date in Agency List :	N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Facility Name : Facility Address : County :	Lester Park Golf Course 1860 Lester River Rd, Duluth, Minnesota 55804 St. Louis
Facility ID : LUST ID : Reported Date : Status : Substance : Closed With Residual Contamination (Tribal Only): NFA_Letter (Tribal Only) : Tribe (Tribal Only) : EPA Region : Estimated Population within 1500ft : Estimated Private Domestic Wells within 1500ft: Within Source Water Protection Area (SPA): SPA Public Water System and Facility ID: SPA Water Type : SPA Facility Type : SPA HUC12 :	MN42034 MNLS0002536 1990-04-24 No Further Action N/R N/R N/R 5 7 1 No N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

No

N/R N/R N/R N/R No 46.85085 -91.99984 2022-04-22 Envirosite ID: 42994676 EPA ID: N/R

2022

EPA LUST (cont.)

Within Groundwater Wellhead Protection
Area (WHPA):
WHPA Public Water System and Facility
ID:
WHPA Water Type :
WHPA Facility Type :
WHPA HUC12 :
Within Estimated 100-year Floodplain:
Latitude :
Longitude :
Last Date in Agency List :

EPA UST

Facility Name : Facility Address : County :

Facility ID : Facility Status : Open USTs : Closed USTs : Temporarily Out of Service USTs : Date of Last Inspection : EPA Region : Tribe : Facility ID 2 : Latitude : Longitude : Last Date in Agency List :

Tank Details Tank ID : Tank Status : Installation Date : Removal Date : Capacity : Substances : Tank Wall Type :

> Tank ID : Tank Status : Installation Date : Removal Date : Capacity :

Lester Park Golf Course 1860 Lester River Rd, Duluth, Minnesota 55804 N/R

MNTS0005358 Closed UST(s) 0 2 0 N/R 5 N/R 46.85797488 -91.99902405 2022-04-07

42034-EQUI000000001-1 Closed N/R 1990-04-24 N/R Gasoline Single

42034-EQUI000000002-1 Closed 1975-06-01 1990-04-24 350

Site Name :	LESTER PARK GOLF COURSE DULUTH
Site nume i	CITY OF - LESTER GOLF LESTER PARK
	GOLF MANAGEMENT LLC
	1860 LESTER RIVER RD
	Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC
	- MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

2022

EPA UST (cont.)

	Substances : Tank Wall Type :	Gasoline Single
ERNS		
	Facility Address : County :	1860 LESTER RIVER ROAD, DULUTH, MN 55804 ST. LOUIS
Incide	ent Information Incident Date Time : Type of Incident : Incident Cause : Incident DTG : Incident Location : Sequence Number : Potential Flag :	2016-07-22 12:00:00 MOBILE EQUIPMENT FAILURE OCCURRED NEXT TO THE MAINTENANCE BUILDING OIL IN THE SOIL 1157012 N
	Description of Incident :	CALLER STATED THERE IS A SPILL OF MATERIALS FROM A HYDRAULIC TANK ON A TRUCK THAT IS CONTAMINATING THE GROUND.
	Last Date in Agency List :	2016-10-05
Incide	ent Response Summary Date Time Received : Date Time Completed : Call Type : Source : Responsible Company : Responsible Org Type : Responsible City : Responsible State : Responsible Zip :	2016-08-22 16:00:00 2016-08-22 16:10:00 Incident TELEPHONE LESTER PARK GOLF COURSE LOCAL GOVERNMENT DULUTH MN 55804
Incide	ent Details Summary Remedial Action : Medium : Medium Description : Body of Water : Weather Conditions : Water Temperature : Water Supply Contaminated : Waterway Closed : Waterway Description :	N/R ONTO THE GROUND LAND N/R UNKNOWN N/R U N N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

ERNS (cont.)

Additional Incident Details Summary Actual Amount : Actual Amount Units : Capacity of Tank : Capacity of Tank Units : Continuous Release Begin Date : Continuous Release End Date : Continuous Release End Date : Continuous Release Permit : Continuous Release Permit : Continuous Release Type : Description of Tank : Device Operational : DOT Crossing Number : DOT Regulated : NPDES : NPDES : NPDES Compliance : Pipeline Aboveground : Pipeline Covered : Pipeline Type : Tank ID : Tank Regulated : Tank Regulated by :	N/R N/R N/R N/R N/R N/R N/R U N/R U N/R U ABOVE U N/R U N/R U N/R U N/R
Materials Involved Summary Name of Material : CAS Number : Amount of Material : Unit of Measure : UN Number : CHRIS Code : Reached Water : Amount in Water : Unit of Measure (Reach Water) :	HYDRAULIC OIL 000000-00-0 0 UNKNOWN AMOUNT N/R OHY NO N/R N/R
Mobile Details Vehicle Own Fuel Capacity : Cargo Capacity : Amount of Cargo on Board : Hazmat Carrier : Carrier Licensed : Noncompliance with Hazmat : Mobile Type : Cargo Capacity Units : Amount of Cargo on Board Units : Vehicle Year :	N/R N/R U U U PASSENGER TRUCK N/R N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s)	: [AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

N/R

N/R (UNKNOWN)

N/R

ST LOUIS

110003844010

2022-02-17

Envirosite ID: 42994676 EPA ID: N/R

ERNS (cont.)

Vehicle Make : Vehicle Model : Vehicle Number : Trailer Number :

FRS

Facility Name : Facility Address : County :

Site Details

Registry ID : FRS Facility URL : Last Date in Agency List :

Source Description

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

DULUTH CITY OF - LESTER GOLF

1860 LESTER RIVER RD, DULUTH, MN 55804-3030

Click here for hyperlink provided by the agency.

FRS Environmental Interest Source and System ID :

Facility Name : Facility Address : County :

Site Details Registry ID : FRS Facility URL : Last Date in Agency List : RCRAINFO - MND985692557

LESTER PARK GOLF COURSE 1860 LESTER RIVER RD, DULUTH, MN 55804 ST. LOUIS

110068357913 <u>Click here for hyperlink provided by the agency.</u> 2022-02-17

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

FRS (cont.)

Source Description

Source Description :

Minnesota's permitting, compliance, and enforcement information management system.

FRS Environmental Interest Source and System ID :

MN-TEMPO - 42034

Site Details Registry ID : FRS Facility URL : Last Date in Agency List :

110044366067 <u>Click here for hyperlink provided by the agency.</u> 2016-05-21

Source Description

Source Description :

The MN-DELTA is the Minnesota Pollution Control Agency's (MPCA) permitting, compliance, and enforcement information management system, which facilitates the issuance of permits and manages compliance.

FRS Environmental Interest	
Source and System ID :	

MN-DELTA - 55936

HIST LUST - MN

Facility Name : Facility Address : Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804

Site Details	
Interest Start Date :	1998-07-01
Interest End Date :	2006-11-13 08:36
Interest Phone :	NO CORE PI PH.
Interest Type :	Leak Site
TMSP Last Update :	2014-11-10 08:17
TMSP Added :	2006-11-13 08:36
Program ID :	215335
Site ID :	55936
Preferred ID :	2536

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

HIST LUST - MN (cont.)

Address ID :	65071
Township Name :	N/R
Staff ID Last Update :	RGAGLE
Source :	CORE
Active Flag :	Ν
Comments :	N/R
Last Date in Agency List :	2017-10-11
Leak Site Summary	
Release Discovered Date :	1990-04-24
Leak Report Date :	1990-05-16
Enforcement Action Begin Date :	1990-05-30
Complete Site Closure Date :	1998-07-08
TMSP Last Update :	2014-06-30 13:51
TMSP Added :	1999-12-04 14:03
Leak Site Type Code :	Leak site (tank and petroleum contamination).
Staff ID Last Update :	DBOETTC
File Archive Box :	N/R
File Archive Lot :	N/R
CU YDS Excavated Quantity :	400
Soil Dig Out Date :	1990-04-24
STD Letter Response Date :	N/R
1	•
COND Closure Date :	N/R
LUST Trust Eligible Flag :	Y
REIMB Awarded Flag :	Ν
Utility Project Flag :	Ν
Tank REG Status Code :	Federal
Sub Slab Sample Collected Flag :	N/R
	•
Indoor Air Collected Flag :	N/R
Contaminated Soils Remaining Flag :	S
Surface Water Impact Flag :	U
Offsite Contamination Flag :	U
Residence Type Code :	N/R
Release from AST Flag :	N
	N
Release from UST Flag :	IN
Vapor Intrusion Checked Application	
Date:	N/R
Vapor Intrusion Checked Acres :	N/R
Vapor Intrusion Checked Flag :	N/R
Vapor Intrusion Action Flag :	N/R
Vapor Intrusion Comments :	-
•	N/R
Soil Gas Data Collected Flag :	N/R
Soil Gas Action Level Flag :	N/R
Soil Gas Data Comments :	N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

HIST TANK SITES - MN

Facility Name :	Lester Park Golf Course
Facility Address :	1860 Lester River Rd, Duluth, MN 55804
County :	St. Louis
Tank Registration Date : Tank Status : Tank Storage Capacity : Tank Regulation Status : MPCA Tank Number : Program ID : Above or Under Ground : Tank Cathodic Protection : Tank Cathodic Protection : Tank Stored Product : Client Tank Number : AST Base Material : Piping Material : Secondary Containment Tank : Secondary Containment Tank : Secondary Containment Pipe : Tank Construction Material : Tank Dispenser Type : Unregistered Tank Reported Date : Compartmental Flag : Heating Product Flag : HW Generator ID : Product Replaced Date : Sludge Disposal Facility : Compliant Flag : Serial Number : Tank Dual Use : TMSP Added : TMSP Last Updated : Staff ID Last Updated : Comments :	1994-11-01 Active 500 Non-regulated 1001 194744 Above Ground N/R N/R Gasoline 1 On Concrete None N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Tank Registration Date :	1994-11-01
Tank Status :	Active
Tank Storage Capacity :	500
Tank Regulation Status :	Non-regulated
MPCA Tank Number :	1002
Program ID :	194744
Above or Under Ground :	Above Ground
Tank Cathodic Protection :	N/R
Piping Cathodic Protection :	N/R
Tank Stored Product :	Diesel
Client Tank Number :	2
AST Base Material :	On Concrete

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

HIST TANK SITES - MN (cont.)

Piping Material : Secondary Containment Tank : Secondary Containment Pipe : Tank Construction Material : Tank Dispenser Type : Unregistered Tank Reported Date : Compartmental Flag : Heating Product Flag : HW Generator ID : Product Replaced Date : Sludge Disposal Facility : Compliant Flag : Serial Number : Tank Dual Use : TMSP Added : TMSP Last Updated : Staff ID Last Updated : Comments :	None N/R N/R AST, Doublewall Metal N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Tank Registration Date : Tank Status : Tank Storage Capacity : Tank Regulation Status : MPCA Tank Number : Program ID : Above or Under Ground : Tank Cathodic Protection : Piping Cathodic Protection : Tank Stored Product : Client Tank Number : AST Base Material : Piping Material : Secondary Containment Tank : Secondary Containment Tank : Secondary Containment Pipe : Tank Construction Material : Tank Dispenser Type : Unregistered Tank Reported Date : Compartmental Flag : Heating Product Flag : HW Generator ID : Product Replaced Date : Sludge Disposal Facility : Compliant Flag : Serial Number : Tank Dual Use : TMSP Added : TMSP Last Updated :	1986-10-08 Removed 350 Federal+State 001 194744 Under Ground None Gasoline 001 N/R Steel/Iron N/R Steel/Iron N/R N/R Bare/Paint/Asph Coat Steel Suction N/R N/R U N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

HIST TANK SITES - MN (cont.)

Comments :	N/R
Tank Registration Date : Tank Status : Tank Storage Capacity : Tank Regulation Status : MPCA Tank Number : Program ID : Above or Under Ground : Tank Cathodic Protection : Piping Cathodic Protection : Tank Stored Product : Client Tank Number : AST Base Material : Piping Material : Secondary Containment Tank : Secondary Containment Pipe : Tank Construction Material : Tank Dispenser Type : Unregistered Tank Reported Date : Compartmental Flag : Heating Product Flag : HW Generator ID : Product Replaced Date : Sludge Disposal Facility : Compliant Flag : Serial Number : Tank Dual Use : TMSP Added : TMSP Last Updated : Comments :	1986-10-08 Removed 0 Non-regulated 002 194744 Under Ground None Gasoline 002 N/R Other Gravity N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Additional Tank Information MPCA Tank Number : Dike Side Material Code : Dike Bottom Material Code : SPCC Flag : AST Monthly Throughput Gallons : Overfill Prot None Flag : Overfill Prot Ball Float Flag : Overfill Prot Auto Shut Flag : Overfill Prot Type UNK Flag : Overfill Prot No Information Flag : Overfill Prot Alarm Flag : Prd Auto Ln Leak Det Flag :	001 N/R N/R N/R N/R N/R N/R N/R Y N/R N/R N/R N

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN	
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)	

HIST TANK SITES - MN (cont.)

Prd Annual Tightness Test Flag : Prd Vapor Monitor Flag : Prd GW Monitor Flag : Prd Interstit Monitor Flag : Prd Three Year Tightness Flag : Prd Euro Suct Flag : Prd Sir Approve Date :	N N N Y N/R
MPCA Tank Number : Dike Side Material Code : Dike Bottom Material Code : SPCC Flag : AST Monthly Throughput Gallons : Overfill Prot None Flag : Overfill Prot Ball Float Flag : Overfill Prot Ball Float Flag : Overfill Prot Auto Shut Flag : Overfill Prot Auto Shut Flag : Overfill Prot Alor Share Flag : Prd Auto Ln Leak Det Flag : Prd Auto Ln Leak Det Flag : Prd Annual Tightness Test Flag : Prd GW Monitor Flag : Prd Interstit Monitor Flag : Prd Three Year Tightness Flag : Prd Euro Suct Flag : Prd Sir Approve Date :	002 N/R N/R N/R N/R N/R N/R N/R N N N N N N
MPCA Tank Number : Dike Side Material Code : Dike Bottom Material Code : SPCC Flag : AST Monthly Throughput Gallons : Overfill Prot None Flag : Overfill Prot None Flag : Overfill Prot Auto Shut Flag : Overfill Prot Auto Shut Flag : Overfill Prot Type UNK Flag : Overfill Prot No Information Flag : Overfill Prot Alarm Flag : Prd Auto Ln Leak Det Flag : Prd Auto Ln Leak Det Flag : Prd Annual Tightness Test Flag : Prd GW Monitor Flag : Prd Interstit Monitor Flag : Prd Interstit Monitor Flag : Prd Euro Suct Flag : Prd Euro Suct Flag : Prd Sir Approve Date :	1001 5 6 N 1000 N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R

Envirosite ID: 42994676 EPA ID: N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

HIST TANK SITES - MN (cont.)

MPCA Tank Number : Dike Side Material Code : Dike Bottom Material Code : SPCC Flag : AST Monthly Throughput Gallons : Overfill Prot None Flag : Overfill Prot Ball Float Flag : Overfill Prot Ball Float Flag : Overfill Prot Auto Shut Flag : Overfill Prot Type UNK Flag : Overfill Prot No Information Flag : Overfill Prot Alarm Flag : Prd Auto Ln Leak Det Flag : Prd Auto Ln Leak Det Flag : Prd Annual Tightness Test Flag : Prd GW Monitor Flag : Prd GW Monitor Flag : Prd Interstit Monitor Flag : Prd Three Year Tightness Flag : Prd Euro Suct Flag : Prd Sir Approve Date :	1002 5 6 N 500 N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Facility Name : Facility Address : County :	Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804 St. Louis
Site ID : Active : Activity ID : Activity Name : Activity Type Name : Activity Subtype Name : Activity Subtype Name : Owner Name : Program Name : Industrial Classification : Watershed Name : Coordinate Method : Legislative District : HUC 8 : Institutional Control : Latitude : Longitude : Agency Hyperlink : Last Date in Agency List :	42034 N MND985692557 Lester Park Golf Course Hazardous Waste N/R Enger Golf Course Hazardous Waste Golf Courses and Country Clubs Lake Superior - South Address Matching House Number 8 04010102 N 46.8616386 -91.996816 <u>Click here for hyperlink provided by the agency.</u> 2022-02-07

Lester Park Golf Course

HWG - MN

Facility Name :

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

LUST - MN (cont.)

Facility	Address	:
County	:	

Site Details Item ID : Site ID : Site Type : AI ID : Al Name : Acreage : Hydro: Project Manager : Status : Listed on the NPL? : Listed on the PLP? : A petroleum brownfield? : A non-petroleum brownfield? : Listed on EPA's CERCLIS/SEMS list? : An unpermitted dump? : Are there institutional controls? : Hazard Ranking System Score : Year for the HRS Score : Congressional District : House District : Senate District : HUC8 ID : HUC8 Name : HUC10 ID : HUC12 ID : HUC12 Name : DW SMA Code : DW SMA Name : Fed Regulated : Fed State Regulated : State Regulated : Not Regulated : SF Voluntary : Coordinate Collection Method : Location Description : Latitude : Longitude : WIMN Link : Last Date in Agency List :

1860 Lester River Rd, Duluth, MN 55804 St. Louis

42034-AREA000000002 LS0002536 Leak Site 42034 Lester Park Golf Course N/R Jonathan Smith (no longer at MPCA) James Joslyn (no longer at MPCA) Closed No No No No No No No N/R N/R 8 7A 7 04010102 Lake Superior - South 0401010204 040101020402 Talmadge Creek-Frontal Lake Superior N/R N/R Yes No No No No Digitized - MPCA internal map N/R 46.850847 -91.999836 Click here for hyperlink provided by the agency. 2022-03-16

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

LUST - MN (cont.)

Activity Details	
Activity ID :	SIW19900001
Activity Description :	Leak Site Investigation
Activity Class :	SIW
Activity Year :	1990
Activity Number :	1
Site Closed :	1998-07-08
Site Start Date :	1990-05-16
Site Discover Date :	N/R
Leak Discovered :	1990-04-24
Leak Reported :	1990-05-16
Leak Reopened Date :	N/R
Date Received :	N/R
Site Listed on PLP :	N/R
Site Delisted from PLP :	N/R
Site Listed on NPL :	N/R
Site Deleted from NPL :	N/R
Fund Finance Approved :	N/R
Fund Finance Closed :	N/R
Assessment Completed :	N/R
Investigation Completed :	N/R
No Further Action Decision :	N/R
Remedy Implemented :	N/R
Remedy Selected :	N/R
Staff Assign Date :	N/R
App Completed Date :	N/R
ER Site Eval Date :	N/R
FEST - MN	

MANIFEST - MN

Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804

Shipment Details

Facility Name :

Facility Address :

Details for this site have been truncated due to the large number of available details for this site within this dataset. For the complete details for this site, contact your Envirosite account representative for a complimentary site report containing all of the details available.

Generator Ship Date : Transporter 1 Received Date : Transporter 2 Received Date : TSD Received Date : Generator EPA ID : Generator AI ID : Generator AI Name : Generator Address : 1999-03-10 1999-03-10 N/R 1999-03-10 MND985692557 42034 Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

MANIFEST - MN (cont.)

Transporter EPA ID : Transporter AI ID : Transporter AI Name : Transporter Address : Transporter 2 ID : Transporter 2 AI ID : Transporter 2 AI Name : Transporter 2 Address : TSD EPA ID : TSD AI ID : TSD AI Name : TSD Address : Generator Copy Received Date : Facility Copy Received Date : Comments :

Materials Listed Manifest Row : Hazardous Material Name : Hazardous Class Number : UN NA Number : Packing Group Number : Container Quantity : Container Code : Waste Quantity : Waste Units Code : Waste Code List : Waste Code Description :

Shipment Details Generator Ship Date : Transporter 1 Received Date : Transporter 2 Received Date : TSD Received Date : Generator EPA ID : Generator AI ID : Generator Al Name : Generator Address : Transporter EPA ID : Transporter AI ID : Transporter Al Name : Transporter Address : Transporter 2 ID : Transporter 2 AI ID : Transporter 2 AI Name :

MNR000033597 30092 Como Lube & Supplies Inc 1108 Port Terminal Rd, Duluth, MN 55802-2619 N/R N/R N/R N/R MNR000033597 30092 Como Lube & Supplies Inc 1108 Port Terminal Rd, Duluth, MN 55802-2619 1999-03-15 1999-03-15 N/R

1 PETROLEUM NAPHTHA,COMBUS. LIQ. N/R NA1993 N/R 1 DMML 18 AD D001 IGNITABLE WASTE

1998-08-27 1998-08-27 N/R 1998-08-27 MND985692557 42034 Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804 MNR000033597 30092 Como Lube & Supplies Inc 1108 Port Terminal Rd, Duluth, MN 55802-2619 N/R N/R

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

MANIFEST - MN (cont.)

Transporter 2 Address :	N/R
TSD EPA ID :	MNR000033597
TSD AI ID :	30092
TSD AI Name :	Como Lube & Supplies Inc
TSD Address :	1108 Port Terminal Rd, Duluth, MN 55802-2619
Generator Copy Received Date :	1998-09-01
Facility Copy Received Date :	1998-09-01
Comments :	N/R
Materials Listed Manifest Row : Hazardous Material Name : Hazardous Class Number : UN NA Number : Packing Group Number : Container Quantity : Container Code : Waste Quantity : Waste Units Code : Waste Code List : Waste Code Description :	1 PETROLEUM NAPHTHA,COMBUS. LIQ. N/R N/R 1 DMML 18 AD D001 IGNITABLE WASTE
 Shipment Details Generator Ship Date :	1998-06-23
Transporter 1 Received Date :	1998-06-23
Transporter 2 Received Date :	N/R
TSD Received Date : Generator EPA ID :	1998-06-23
Generator AI ID :	MND985692557
Generator AI ID :	42034
Generator AI Name :	Lester Park Golf Course
Generator Address :	1860 Lester River Rd, Duluth, MN 55804
Transporter EPA ID :	MNR000033597
Transporter AI ID :	30092
Transporter AI Name :	Como Lube & Supplies Inc
Transporter AI ID :	1108 Port Terminal Rd, Duluth, MN 55802-2619
Transporter 2 ID :	N/R
Transporter 2 AI ID :	N/R
Transporter 2 AI ID :	N/R
Transporter 2 AI Name :	N/R
Transporter 2 AI Name :	N/R
TSD EPA ID :	MNR000033597
TSD EPA ID :	30092
TSD AI Name :	Como Lube & Supplies Inc
TSD Address :	1108 Port Terminal Rd, Duluth, MN 55802-2619
Generator Copy Received Date :	1998-06-26
Facility Copy Received Date :	1998-06-26

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

MANIFEST - MN (cont.)

Comments :

N/R

Materials Listed Manifest Row : 1 PETROLEUM NAPHTHA, COMBUS. LIQ. Hazardous Material Name : Hazardous Class Number : N/R UN NA Number : NA1993 Packing Group Number : N/R Container Quantity : 1 Container Code : DMML Waste Quantity : 20 Waste Units Code : AD D001 Waste Code List : Waste Code Description : **IGNITABLE WASTE** Shipment Details Generator Ship Date : 1998-04-23 Transporter 1 Received Date : 1998-04-23 Transporter 2 Received Date : N/R TSD Received Date : 1998-04-23 MND985692557 Generator EPA ID : Generator AI ID : 42034 Generator Al Name : Lester Park Golf Course Generator Address : 1860 Lester River Rd, Duluth, MN 55804 MNR000033597 Transporter EPA ID : Transporter AI ID : 30092 Transporter Al Name : Como Lube & Supplies Inc Transporter Address : 1108 Port Terminal Rd, Duluth, MN 55802-2619 Transporter 2 ID : N/R Transporter 2 AI ID : N/R Transporter 2 Al Name : N/R Transporter 2 Address : N/R MNR000033597 TSD EPA ID : TSD AI ID : 30092 TSD AI Name : Como Lube & Supplies Inc TSD Address : 1108 Port Terminal Rd, Duluth, MN 55802-2619 Generator Copy Received Date : 1998-04-29 Facility Copy Received Date : 1998-04-29 Comments : N/R

Materials Listed Manifest Row : Hazardous Material Name :

1 PETROLEUM NAPHTHA,COMBUS. LIQ.

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

MANIFEST - MN (cont.)

Hazardous Class Number : UN NA Number : Packing Group Number : Container Quantity : Container Code : Waste Quantity : Waste Quantity : Waste Units Code : Waste Code List : Waste Code Description :	N/R NA1993 N/R 1 DMML 18 AD D001 IGNITABLE WASTE
Shipment Details	
Generator Ship Date : Transporter 1 Received Date : Transporter 2 Received Date : TSD Received Date : Generator EPA ID : Generator AI ID : Generator AI Name : Generator Address : Transporter EPA ID : Transporter AI ID : Transporter AI Name : Transporter AI Name : Transporter 2 ID : Transporter 2 AI ID : Transporter 2 AI ID : Transporter 2 Address : TSD EPA ID : TSD AI ID : TSD AI Name : TSD Address : Generator Copy Received Date : Facility Copy Received Date : Comments :	1997-10-24 1997-10-24 N/R 1997-10-24 MND985692557 42034 Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804 MNR000033597 30092 Como Lube & Supplies Inc 1108 Port Terminal Rd, Duluth, MN 55802-2619 N/R N/R N/R MNR000033597 30092 Como Lube & Supplies Inc 1108 Port Terminal Rd, Duluth, MN 55802-2619 1997-10-29 1997-10-29 N/R
Materials Listed Manifest Row : Hazardous Material Name : Hazardous Class Number : UN NA Number : Packing Group Number : Container Quantity : Container Code : Waste Quantity : Waste Units Code :	1 PETROLEUM NAPHTHA,COMBUS. LIQ. N/R N/R 1 DMML 18 AD

Site Name :LESTER PARK GOLF COURSE | DULUTH
CITY OF - LESTER GOLF | LESTER PARK
GOLF MANAGEMENT LLC
1860 LESTER RIVER RD
Duluth | DULUTH, MNDatabase(s) :[AG_LICENSES - MN, AST - MN, ECHO,
EPA LUST, EPA UST, ERNS, FRS, HIST
LUST - MN, HIST TANK SITES - MN, HWG -
MN, LUST - MN, MANIFEST - MN, MDA LIC
- MN, RCRA_NONGEN, UST - MN, WIMN -
MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

MANIFEST - MN (cont.)

Waste Code List : Waste Code Description : D001 IGNITABLE WASTE

Contact Details

Generator Contact Name : Generator Contact Mailing Address : Generator Contact Email : Generator Contact Number :

NAICS Code Description :

MDA LIC - MN

Facility Name : Facility Address : County :

Expiration Date : License : License Type : Relationship : County Code : Phone Number : Last Date in Agency List :

RCRA_NONGEN

Facility Name : Facility Address : County :

Date Form Received by Agency : EPA ID : Mailing Address : Contact : Contact Address : Contact Country : Contact Country : Contact Telephone : Contact Email : EPA Region : Land Type : Source Type : Jud Crist 1801 W Skyline Blvd, Duluth, MN 55806 judcrist@aol.com 218-723-3453

713910 - Golf Courses and Country Clubs

LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD, DULUTH, MN 55804 SAINT LOUIS

2018-12-31 20112967 NON-COMMERCIAL PESTICIDE APPLICATOR EMPLOYER 137 N/R 2020-01-22

DULUTH CITY OF - LESTER GOLF 1860 LESTER RIVER RD, DULUTH, MN 55804-3030 ST LOUIS

1990-09-24 MND985692557 4825 MIKE COLALILLO DR, DULUTH, MN 55807 CHUCK FAEGRE 215 N 1ST AVE E, DULUTH, MN 55802 US 218-336-8700 N/R 05 Municipal Notification

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

RCRA_NONGEN (cont.)

Classification : Description : Last Date in Agency List :	Not a generator, verified Not a generator, verified 2022-01-26
Owner/Operator Summary Owner/Operator Name : Owner/Operator Address : Owner/Operator Country : Owner/Operator Telephone : Owner/Operator Email : Owner/Operator Fax : Legal Status : Owner/Operator Type : Owner/Operator Start Date : Owner/Operator End Date :	DULUTH CITY OF 4825 MIKE COLALILLO DR, DULUTH, MN 55807 US 218-336-8700 N/R N/R Municipal Owner 1999-06-15 N/R
Handler Activities Summary U.S. Importer of Hazardous Waste : Mixed Waste (Haz. and Radioactive) : Recycler of Hazardous Waste : Transporter of Hazardous Waste : Treater, Storer or Disposer of HW : Underground Injection Activity : On-site Burner Exemption : Furnace Exemption : Used Oil Fuel Burner : Used Oil Fuel Burner : Used Oil Refiner : Used Oil Refiner : Used Oil Fuel Marketer to Burner : Used Oil Specification Marketer : Used Oil Transfer Facility : Used Oil Transporter :	N N N N N N N N N N N
Hazardous Waste Summary Waste Code / Name :	D001 - IGNITABLE WASTE
Notices of Violations Summary Regulation Violated :	Ν

Facility Name :

Facility Address :

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

UST - MN

County : Item Compartment : AI ID : Tank Site ID : Item ID : SI Type : SI Designation : SI Description : Compartment Number : Capacity (Gallon) : Substance : Tank Wall Type : Tank Material : Overfill Prevention System : Installation Date : Last Update : Tank Status : Tank Contractor : Owner Name : Owner Address : Programs : Cathodic Protection System : Tank Leak Detection : Special Use Description : Vapor Recovery : Coord Collection Method : Pipe Wall : . Pipe Material : Location Description : Pipe Leak Detection : Pipe Corrosion Protection : Latitude : Longitude : Tank URL : Last Date in Agency List :

Item Compartment : AI ID : Tank Site ID : Item ID : SI Type : SI Designation : SI Description : Compartment Number : Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804 St. Louis

42034-EQUI000000001-1 42034 TS0005358 42034-EQUI000000001 Underground Storage Tank System 2 0 gal/Gasoline/Removed 1 0 Gasoline Single Other UST Not needed N/R 1990-04-24 Removed N/R Enger Golf Course 1801 W Skyline Blvd UT Not needed UST Not needed None Ν Address Matching House Number Single Other N/R NONE None 46.857975 -91.999024 Click here for hyperlink provided by the agency. 2022-03-23

42034-EQUI000000002-1 42034 TS0005358 42034-EQUI000000002 Underground Storage Tank System 1 350 gal/Gasoline/Removed 1

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

2022

UST - MN (cont.)

Capacity (Gallon) : Substance : Tank Wall Type : Tank Material : Overfill Prevention System : Installation Date : Last Update : Tank Status : Tank Contractor : Owner Name : Owner Address : Programs : Cathodic Protection System : Tank Leak Detection : Special Use Description : Vapor Recovery : Coord Collection Method : Pipe Wall : Pipe Material : Location Description : Pipe Leak Detection : Pipe Corrosion Protection : Latitude : Longitude : Tank URL : Last Date in Agency List :

WIMN - MN

Facility Name : Facility Address : County :

Site Details Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

> Site ID : Activity Subtype Name :

350 Gasoline Single Bare/Paint/Asph Coat Steel UST Not needed 1975-06-01 1990-04-24 Removed N/R Enger Golf Course 1801 W Skyline Blvd UT Not needed UST Not needed None Ν Address Matching House Number Single Steel/Iron N/R SSP None 46.857975 -91.999024 Click here for hyperlink provided by the agency. 2022-03-23

Lester Park Golf Course 1860 Lester River Rd, Duluth, MN 55804 St. Louis

42034 N/R No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8616386 -91.996816 Address Matching House Number 2022-02-09

42034 Leak Site

Site Name :	LESTER PARK GOLF COURSE DULUTH CITY OF - LESTER GOLF LESTER PARK GOLF MANAGEMENT LLC 1860 LESTER RIVER RD Duluth DULUTH, MN
Database(s) :	[AG_LICENSES - MN, AST - MN, ECHO, EPA LUST, EPA UST, ERNS, FRS, HIST LUST - MN, HIST TANK SITES - MN, HWG - MN, LUST - MN, MANIFEST - MN, MDA LIC - MN, RCRA_NONGEN, UST - MN, WIMN - MN] (cont.)

Envirosite ID: 42994676 EPA ID: N/R

2022

WIMN - MN (cont.)

Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Activity Details

Program Name : Activity Type : Activity ID : Industrial Classification : Active :

Program Name : Activity Type : Activity ID : Industrial Classification : Active :

Program Name : Activity Type : Activity ID : Industrial Classification : Active :

Owner Details Owner Name : No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8616386 -91.996816 Address Matching House Number 2022-02-09

Investigation and Cleanup Petroleum Remediation LS0002536 Golf Courses and Country Clubs No

Tanks Aboveground Tanks TS0005358 Golf Courses and Country Clubs Yes

Tanks Underground Tanks TS0005358 Golf Courses and Country Clubs Yes

Enger Golf Course

Map Findings

Map Id: C10 Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft.		Site Name :	Brunelle Residence 5805 Oneida Ave Duluth, MN 55804	Envirosite ID: 3506175 EPA ID: N/R
Relative: Lowe	r	Database(s) :	[LUST - MN]	
LUST - MN				
	Facility Name : Facility Address : County :		Brunelle Residence 5805 Oneida Ave, Duluth, MN 55804 St. Louis	
Site De	atails			
	Site Type : AI ID : AI Name : Acreage : Hydro : Project Manager : Status : Listed on the NPL? : Listed on the NPL? : Listed on the PLP? : A petroleum brownfield A non-petroleum browr Listed on EPA's CERCLI An unpermitted dump? Are there institutional of Hazard Ranking System Year for the HRS Score Congressional District : House District : Senate District : HUC8 ID : HUC8 Name : HUC10 ID : HUC12 ID :	nfield? : S/SEMS list? : : controls? : n Score : :	Leak Site 214403 Brunelle Residence N/R Adam Sekely (former) Amy Jendro (former) Closed No No No No No No No No No No No No No	
	HUC12 Name : DW SMA Code : DW SMA Name : Fed Regulated : Fed State Regulated : State Regulated :		City of Duluth-Frontal Lake Superior N/R N/R No No No	
	Not Regulated : SF Voluntary : Coordinate Collection N Location Description : Latitude : Longitude : WIMN Link : Last Date in Agency Lis		Yes No Digitized - MPCA internal map N/R 46.839841 -92.011806 <u>Click here for hyperlink provided by the agen</u> 2022-03-16	су.
	y Details Activity ID : Activity Description : Activity Class :		SIW20160001 Leak Site Investigation SIW	

Activity Description : Activity Class : Activity Year : Activity Number : Site Closed : Site Start Date : SIW20160001 Leak Site Investigation SIW 2016 1 2017-12-22 2016-11-23

Map Id: C10 Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft.	Site Name :	Brunelle Residence 5805 Oneida Ave Duluth, MN 55804	Envirosite ID: 3506175 EPA ID: N/R
Relative: Lower	Database(s) :	[LUST - MN] (cont.)	
LUST - MN (cont.)			
Site Discover Date : Leak Discovered : Leak Reported : Leak Reopened Date : Date Received : Site Listed on PLP : Site Delisted from PLP Site Listed on NPL : Site Deleted from NPL Fund Finance Approve Fund Finance Closed : Assessment Complete Investigation Complete No Further Action Dec Remedy Implemented Remedy Selected : Staff Assign Date : App Completed Date : ER Site Eval Date :	: d: d: ed: ision: :	N/R 2016-11-23 2016-11-23 N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R	
Map Id: C11 Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft.	Site Name :	Brunelle Residence 5805 Oneida St Duluth, MN 55804	Envirosite ID: 3602670 EPA ID: N/R
Direction: WSW Distance: 0.371 mi., 1958 ft.	Site Name : Database(s) :	5805 Oneida St Duluth, MN 55804	
Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft.		5805 Oneida St Duluth, MN 55804 [MPCA SITE ASSESSMENT - MN, WIMN -	
Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft. Relative: Lower		5805 Oneida St Duluth, MN 55804 [MPCA SITE ASSESSMENT - MN, WIMN -	

Page 70 of 160

ER Site Eval Date :

Map Id: C11 Site Name : Brunelle Residence Direction: WSW 5805 Oneida St Distance: 0.371 mi., 1958 ft. Elevation: 691 ft. Duluth, MN 55804 Relative: Lower Database(s) : [MPCA SITE ASSESSMENT - MN, WIMN -MN] (cont.) MPCA SITE ASSESSMENT - MN (cont.) Are there institutional controls? : No Hazard Ranking System Score : N/R Year for the HRS Score : N/R Congressional District : 8 House District : 7A Senate District : 7 HUC8 ID : 04010102 HUC8 Name : Lake Superior - South HUC10 ID : 0401010204 HUC12 ID : 040101020405 HUC12 Name : City of Duluth-Frontal Lake Superior DW SMA Code : N/R DW SMA Name : N/R Fed Regulated : No Fed State Regulated : No State Regulated : No Not Regulated : No SF Voluntary : No Coordinate Collection Method : Digitized - MPCA internal map Location Description : N/R Latitude : 46.839841 -92.011806 Longitude : WIMN Link : Click here for hyperlink provided by the agency. Last Date in Agency List : 2022-03-14 Activity Details Activity ID : SIW20180001 Activity Description : Site Assessment Investigation Activity Class : SIW Activity Year : 2018 Activity Number : 1 Site Closed : 2018-06-28 2018-05-18 Site Start Date : Site Discover Date : N/R Leak Discovered : N/R Leak Reported : N/R Leak Reopened Date : N/R Date Received : 2018-05-18 Site Listed on PLP : N/R Site Delisted from PLP : N/R Site Listed on NPL : N/R Site Deleted from NPL : N/R Fund Finance Approved : N/R Fund Finance Closed : N/R Assessment Completed : 2018-10-15 Investigation Completed : N/R No Further Action Decision : N/R Remedy Implemented : N/R Remedy Selected : N/R Staff Assign Date : N/R App Completed Date : N/R

N/R

Envirosite ID: 3602670 EPA ID: N/R

Map Findings

Map Id: C11 Direction: WSW Distance: 0.371 mi., 1958 ft. Elevation: 691 ft. Relative: Lower

Site Name :	Brunelle Residence 5805 Oneida St
	Duluth, MN 55804
Database(s) :	[MPCA SITE ASSESSMENT - MN, WIMN - MN] (cont.)

WIMN - MN

Facility Name : Facility Address : County :

Site Details

Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :

Activity Details Program Name : Activity Type : Activity ID : Industrial Classification : Active :

> Program Name : Activity Type : Activity ID : Industrial Classification : Active :

Owner Details Owner Name : Brunelle Residence 5805 Oneida St, Duluth, MN 55804 St. Louis

214403 N/R No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.83984066 -92.01180618 Digitized - MPCA internal map 2022-02-09

214403 Leak Site No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.83984066 -92.01180618 Digitized - MPCA internal map 2022-02-09

Investigation and Cleanup Site Assessment SA0000406 N/R No

Investigation and Cleanup Petroleum Remediation LS0020273 N/R No

N/R

Envirosite ID: 3602670 EPA ID: N/R Map Id: B12 Direction: WSW Distance: 0.372 mi., 1964 ft. Elevation: 657 ft. Relative: Lower

Site Name :	LAKESIDE SUPER ONE FOODS SUPER
	ONE LAKESIDE - DULUTH MINERS INC
	DBA SUPER ONE # 455
	5928 E SUPERIOR ST 5928 EAST
	SUPERIOR ST
	DULUTH Duluth, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN]
	Site Name : Database(s) :

EPA LUST

Facility Name : Facility Address : County :	Lakeside Super One Foods 5928 E Superior St, Duluth, Minnesota 55804 St. Louis
Facility ID : LUST ID : Reported Date : Status : Substance : Closed With Residual Contamination (Tribal Only): NFA_Letter (Tribal Only) : Tribe (Tribal Only) : EPA Region : Estimated Population within 1500ft : Estimated Private Domestic Wells within 1500ft: Within Source Water Protection Area (SPA): SPA Public Water System and Facility ID: SPA Water Type : SPA Facility Type : SPA HUC12 : Within Groundwater Wellhead Protection Area (WHPA): WHPA Public Water System and Facility ID: WHPA Water Type : WHPA Facility Type : WHPA Facility Type : WHPA Facility Type : WHPA Facility Type : WHPA HUC12 : Within Estimated 100-year Floodplain: Latitude : Longitude : Last Date in Agency List :	MN191569 MNLS0016874 2007-05-24 No Further Action N/R N/R N/R S 5 764 1 No N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
HIST LUST - MN	
Facility Name : Facility Address :	Lakeside Super One Foods 5928 E Superior St, Duluth, MN 55804
Site Details Interest Start Date : Interest End Date : Interest Phone : Interest Type : TMSP Last Update : TMSP Added : Program ID : Site ID : Preferred ID :	2007-06-28 2014-09-08 10:38 NO CORE PI PH. Leak Site 2014-11-10 08:17 2007-06-28 08:10 436980 270255 16874

Envirosite ID: 3454006 EPA ID: N/R Map Id: B12 Direction: WSW Distance: 0.372 mi., 1964 ft. Elevation: 657 ft. Relative: Lower

Site Name :	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455 5928 E SUPERIOR ST 5928 EAST SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 3454006 EPA ID: N/R

HIST LUST - MN (cont.)

Address ID : Township Name : Staff ID Last Update : Source : Active Flag : Comments : Last Date in Agency List :	300332 N/R RGAGLE CORE N N/R 2017-10-11
Leak Site Summary	
Release Discovered Date :	2007-05-24
Leak Report Date :	2007-05-24
Enforcement Action Begin Date :	2007-07-01
Complete Site Closure Date :	2009-10-30
TMSP Last Update :	2009-11-25 14:24
TMSP Added :	2007-06-28 08:41
Leak Site Type Code :	Leak site (tank and petroleum contamination).
Staff ID Last Update :	KMUSTON
File Archive Box :	N/R
File Archive Lot :	N/R
CU YDS Excavated Quantity :	N/R
Soil Dig Out Date :	N/R
STD Letter Response Date :	2007-07-31
COND Closure Date :	N/R
LUST Trust Eligible Flag :	N
REIMB Awarded Flag :	N N
Utility Project Flag : Tank REG Status Code :	Federal
Sub Slab Sample Collected Flag :	N
Indoor Air Collected Flag :	N
Contaminated Soils Remaining Flag :	Ŷ
Surface Water Impact Flag :	Ň
Offsite Contamination Flag :	N
Residence Type Code :	N/R
Release from AST Flag :	N
Release from UST Flag :	Y
Vapor Intrusion Checked Application	
Date:	N/R
Vapor Intrusion Checked Acres :	N/R
Vapor Intrusion Checked Flag :	Y
Vapor Intrusion Action Flag :	Ν
Vapor Intrusion Comments :	The vapor plume appears to be limited to the site property - which is a vacant lot.
Soil Gas Data Collected Flag :	Y
Soil Gas Action Level Flag :	Ý
Soil Gas Data Comments :	N/R

Map Id: B12 Direction: WSW Distance: 0.372 m Elevation: 657 ft. Relative: Lower

LUST - MN

d: B12 tion: WSW nce: 0.372 mi., 1964 ft. tion: 657 ft. ive: Lower	Site Name :	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455 5928 E SUPERIOR ST 5928 EAST SUPERIOR ST DULUTH Duluth, MN	Envirosite ID: 345 EPA ID
	Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)	
- MN			
Facility Name : Facility Address : County :		Lakeside Super One Foods 5928 E Superior St, Duluth, MN 55804 St. Louis	
Site Details			
Item ID : Site ID : Site Type : AI ID : AI Name : Acreage : Hydro : Project Manager : Status : Listed on the NPL? : Listed on the PLP? : A petroleum brownfield A non-petroleum browr Listed on EPA's CERCLI An unpermitted dump? Are there institutional d Hazard Ranking System Year for the HRS Score Congressional District : House District : HUC8 ID : HUC8 ID : HUC10 ID : HUC12 ID : HUC12 ID : HUC12 Name : DW SMA Code : DW SMA Name : Fed Regulated : Fed State Regulated : State Regulated : State Regulated : SF Voluntary : Coordinate Collection M	nfield? : S/SEMS list? : controls? : n Score : :	191569-AREA000000001 LS0016874 Leak Site 191569 Lakeside Super One Foods N/R Kevin Mustonen (former) Amy Jendro (former) Closed No No No No No No No No No No No No No	
Location Description : Latitude : Longitude : WIMN Link : Last Date in Agency Lis	it :	N/R 46.83769 -92.010784 <u>Click here for hyperlink provided by the ag</u> 2022-03-16	ency.

Activity Details Activity ID : Activity Description : Activity Class :

SIW20070001 Leak Site Investigation SIW

Map Id: B12 Direction: WSW Distance: 0.372 mi., 1964 ft. Elevation: 657 ft. Relative: Lower

Site Name :	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455 5928 E SUPERIOR ST 5928 EAST SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 3454006 EPA ID: N/R

LUST - MN (cont.)

	Activity Year : Activity Number : Site Closed : Site Start Date : Leak Discover Date : Leak Reported : Leak Reopened Date : Date Received : Site Listed on PLP : Site Delisted from PLP : Site Deleted from NPL : Fund Finance Approved : Fund Finance Closed : Assessment Completed : Investigation Completed : No Further Action Decision : Remedy Implemented : Remedy Selected : Staff Assign Date : App Completed Date : ER Site Eval Date :	2007 1 2009-10-30 2007-05-24 N/R 2007-05-24 2007-05-24 2007-05-24 N/R N/R N/R N/R N/R N/R N/R N/R
WIMN - MN		
	Facility Name : Facility Address : County :	Lakeside Super One Foods 5928 E Superior St, Duluth, MN 55804 St. Louis
Site D	Details	
	Site ID : Activity Subtype Name : Institutional Control : Watershed : Agency Hyperlink : Latitude : Longitude : Coordinate Collection Method : Last Date in Agency List :	191569 Leak Site No Lake Superior - South <u>Click here for hyperlink provided by the agency.</u> 46.8376903 -92.0107835 Digitized - MPCA internal map 2022-02-09
Activi	ty Details	Investigation and Classics
	Program Name : Activity Type : Activity ID : Industrial Classification : Active :	Investigation and Cleanup Petroleum Remediation LS0016874 N/R No

Map Id: B12 Direction: WSW Distance: 0.372 mi., 1964 ft. Elevation: 657 ft. Relative: Lower

Site Name :	LAKESIDE SUPER ONE FOODS SUPER ONE LAKESIDE - DULUTH MINERS INC DBA SUPER ONE # 455 5928 E SUPERIOR ST 5928 EAST SUPERIOR ST DULUTH Duluth, MN
Database(s) :	[EPA LUST, HIST LUST - MN, LUST - MN, WIMN - MN] (cont.)

Envirosite ID: 3454006 EPA ID: N/R

2022

WIMN - MN (cont.)

Owner Details Owner Name :

Southgate Enterprises

Map Id: 13 Direction: W Distance: 0.493 mi., 2602 ft. Elevation: 756 ft. Relative: Higher

Site Details

Site ID :

Watershed :

Latitude :

Longitude :

Site Name : MELISSA J RESCH 5414 AVONDALE ST DULUTH | Duluth, MN 55804 Database(s) : [WIMN - MN]

N/R

Envirosite ID: 3576575 EPA ID: N/R

WIMN - MN

Facility Name : Facility Address : County :

Activity Subtype Name :

Coordinate Collection Method :

Last Date in Agency List :

Institutional Control :

Agency Hyperlink :

Melissa J Resch 5414 Avondale St, Duluth, MN 55804 St. Louis

206051 Certified Person No N/R <u>Click here for hyperlink provided by the agency.</u> N/R N/R N/R 2022-02-09

Activity Details	
Program Name :	SSTS
Activity Type :	SSTS
Activity ID :	C8349
Industrial Classification :	N/R
Active :	Yes

Owner Details Owner Name :

Unmappable Summary

ENVIROSITE ID	NAME	ADDRESS	<u>CITY</u>	ZIP	DATABASE(S)
<u>12158192</u>	Lakewood Express Short St	Highway 61 S	Duluth	55804	TALES - MN

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/30/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/30/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS: Bulk petroleum terminals with a total bulk storage capacity of 50,000 barrels or more.

Agency Version Date: 02/22/2022Agency: Department of Homeland SecurityAgency Update Frequency: QuarterlyAgency Contact: 202-853-5361Planned Next Contact: 05/20/2022Most Recent Contact: 02/22/2022

EPA UST: Facilities listed in the EPA UST Finder database

Agency Version Date: 02/15/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: EPA Agency Contact: (202) 566-1667 Most Recent Contact: 02/15/2022

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 10/08/2021 Agency Update Frequency: Varies Planned Next Contact: 06/27/2022 Agency: FEMA Agency Contact: 202-212-5283 Most Recent Contact: 04/01/2022

HIST INDIAN UST R6: Historical Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 12/03/2021 Agency Update Frequency: Semi Annually Planned Next Contact: 05/27/2022 Agency: U.S. Environmental Protection Agency Region 6 Agency Contact: 855-246-3642 Most Recent Contact: 03/01/2022

HIST INDIAN UST R7: Historical Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: U.S. Environmental Protection Agency Region 7 Agency Contact: 855-246-3642 Most Recent Contact: 02/15/2022

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 04/15/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/14/2022 Agency: U.S. Environmental Protection Agency Region 1 Agency Contact: 855-246-3642 Most Recent Contact: 04/15/2022

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 02/14/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: U.S. Environmental Protection Agency Region 10 Agency Contact: 855-246-3642 Most Recent Contact: 02/14/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016 Agency Update Frequency: Quarterly Planned Next Contact: 07/15/2022 Agency: U.S. Environmental Protection Agency Region 2 Agency Contact: 855-246-3642 Most Recent Contact: 04/19/2022

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 02/14/2022Agency: U.S. Environmental Protection Agency Region 4Agency Update Frequency: Semi AnnuallyAgency Contact: 855-246-3642Planned Next Contact: 05/12/2022Most Recent Contact: 02/14/2022

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 01/31/2022 Agency Update Frequency: Varies Planned Next Contact: 04/28/2022 Agency: U.S. Environmental Protection Agency Region 5 Agency Contact: 855-246-3642 Most Recent Contact: 01/31/2022

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 03/01/2022 Agency Update Frequency: Semi Annually Planned Next Contact: 05/27/2022 Agency: U.S. Environmental Protection Agency Region 6 Agency Contact: 855-246-3642 Most Recent Contact: 03/01/2022

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 01/31/2022 Agency Update Frequency: Varies Planned Next Contact: 04/28/2022 Agency: U.S. Environmental Protection Agency Region 7 Agency Contact: 855-246-3642 Most Recent Contact: 01/31/2022

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 01/17/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/11/2022 Agency: U.S. Environmental Protection Agency Region 8 Agency Contact: 855-246-3642 Most Recent Contact: 04/14/2022

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 01/17/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/11/2022 Agency: U.S. Environmental Protection Agency Region 9 Agency Contact: 855-246-3642 Most Recent Contact: 04/14/2022

AST - MN: Aboveground storage tank listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Varies Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

HIST AST - MN: List of aboveground storage tank that are no longer in current agency list.

Agency Version Date: 07/11/2017 Agency Update Frequency: Annually Planned Next Contact: 05/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/08/2022

HIST TANK SITES - MN: Historical Storage Tank listing.

Agency Version Date: 10/11/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 05/31/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/03/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

HIST UST - MN: List of underground storage tank that are no longer in current agency list.

Agency Version Date: 07/19/2018 Agency Update Frequency: Bi-Annually Planned Next Contact: 07/11/2022

UST - MN: Underground storage tank listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Varies Planned Next Contact: 06/06/2022 Most Recent Contact: 04/13/2022

Agency: Minnesota Pollution Control Agency

Agency Contact: 651-296-6300

Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 800-424-9346 Most Recent Contact: 01/28/2022

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 800-424-9346 Most Recent Contact: 01/28/2022

EPA SAA: Listing of Sites with Superfund Alternative Approach Agreements.

Agency Version Date: 11/01/2021 Agency Update Frequency: Quarterly Planned Next Contact: 07/21/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 800-424-9346 Most Recent Contact: 04/25/2022

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8712 Most Recent Contact: 01/28/2022

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022 CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 12/30/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-1667 Most Recent Contact: 03/28/2022

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018 Agency Update Frequency: Annually Planned Next Contact: 05/23/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-1667 Most Recent Contact: 02/24/2022

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 03/25/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/21/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 03/25/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database

Agency Version Date: 02/15/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: EPA Agency Contact: (202) 566-1667 Most Recent Contact: 02/15/2022

HIST INDIAN LUST R4: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/23/2021 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: U.S. Environmental Protection Agency Region 4 Agency Contact: 855-246-3642 Most Recent Contact: 02/15/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

HIST INDIAN LUST R8: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 08/16/2021 Agency Update Frequency: Quarterly Planned Next Contact: 05/04/2022 Agency: U.S. Environmental Protection Agency Region 8 Agency Contact: 855-246-3642 Most Recent Contact: 02/07/2022

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 10/21/2021 Agency Update Frequency: Quarterly Planned Next Contact: 07/14/2022 Agency: U.S. Environmental Protection Agency Region 1 Agency Contact: 855-246-3642 Most Recent Contact: 04/15/2022

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 02/14/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: U.S. Environmental Protection Agency Region 10 Agency Contact: 855-246-3642 Most Recent Contact: 02/14/2022

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016 Agency Update Frequency: Quarterly Planned Next Contact: 07/15/2022 Agency: U.S. Environmental Protection Agency Region 2 Agency Contact: 855-246-3642 Most Recent Contact: 04/19/2022

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 02/14/2022 Agency Update Frequency: Semi Annually Planned Next Contact: 05/12/2022 Agency: U.S. Environmental Protection Agency Region 4 Agency Contact: 855-246-3642 Most Recent Contact: 02/14/2022

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 01/31/2022 Agency Update Frequency: Varies Planned Next Contact: 04/28/2022 Agency: U.S. Environmental Protection Agency Region 5 Agency Contact: 855-246-3642 Most Recent Contact: 01/31/2022

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 02/03/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/02/2022 Agency: U.S. Environmental Protection Agency Region 6 Agency Contact: 855-246-3642 Most Recent Contact: 02/03/2022

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021 Agency Update Frequency: Varies Planned Next Contact: 04/28/2022 Agency: U.S. Environmental Protection Agency Region 7 Agency Contact: 855-246-3642 Most Recent Contact: 01/31/2022

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: U.S. Environmental Protection Agency Region 8 Agency Contact: 855-246-3642 Most Recent Contact: 02/04/2022

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 04/14/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/11/2022 Agency: U.S. Environmental Protection Agency Region 9 Agency Contact: 855-246-3642 Most Recent Contact: 04/14/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

HIST LUST - MN: Historical listing of leaking storage tank incidents

Agency Version Date: 10/11/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 07/18/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 04/21/2022

LUST - MN: Listing of leaking storage tank incident

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 01/21/2022Agency: National Response Center United States Coast GuardAgency Update Frequency: AnnuallyAgency Contact: N/RPlanned Next Contact: 07/15/2022Most Recent Contact: 04/19/2022

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 02/22/2022Agency: U.S. Environmental Protection AgencyAgency Update Frequency: VariesAgency Contact: 800-424-9346Planned Next Contact: 05/20/2022Most Recent Contact: 02/22/2022

FED I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 02/22/2022 Agency Update Frequency: Varies Planned Next Contact: 05/20/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 800-424-9346 Most Recent Contact: 02/22/2022

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 02/04/2022 Agency Update Frequency: Varies Planned Next Contact: 05/03/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 02/04/2022

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018 Agency Update Frequency: Annually Planned Next Contact: 05/23/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 02/24/2022

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018 Agency Update Frequency: Annually Planned Next Contact: 05/23/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 02/24/2022 HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018 Agency Update Frequency: Annually Planned Next Contact: 05/23/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 02/24/2022

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018 Agency Update Frequency: Annually Planned Next Contact: 05/23/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 02/24/2022

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 12/30/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 12/30/2021 Agency Update Frequency: Varies Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 12/30/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 12/30/2021 Agency Update Frequency: Varies Planned Next Contact: 06/22/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 215-814-2469 Most Recent Contact: 03/28/2022

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-2132 Most Recent Contact: 01/28/2022

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-2132 Most Recent Contact: 01/28/2022

FEDERAL NPL SITE LIST (cont.)

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-2132 Most Recent Contact: 01/28/2022

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-2132 Most Recent Contact: 01/28/2022

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-2132 Most Recent Contact: 01/28/2022

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 02/10/2017	Agency: U.S. Environmental Protection Agency
Agency Update Frequency: No Longer Maintained	Agency Contact: 855-246-3642
Planned Next Contact: 06/10/2022	Most Recent Contact: 03/16/2022

BROWNFIELDS - MN: Petroleum Brownfield remediation site listing

Agency Version Date: 02/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/03/2022

Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

STATE AND TRIBAL BROWNFIELD SITES (cont.)

MPCA BROWNFIELDS - MN: MPCA Brownfield remediation site listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

CLP - MN: Listing of priority closed landfills

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

SW OTHER - MN: Other solid waste facilities

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

 SWF/LF - $\mathsf{MN}:$ Solid waste facility and landfill listing

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

STATE AND TRIBAL EQUIVALENT DELISTED NPL SITE LIST

DEL PLP - MN: No longer monitored PLP Sites

Agency Version Date: 02/04/2022 Agency Update Frequency: Varies Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 296-6300 Most Recent Contact: 02/04/2022

Agency: Minnesota Pollution Control Agency

Agency Contact: 651-296-6300 Most Recent Contact: 02/08/2022

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

HIST I C - MN: List of remediation sites with institutional controls that is no longer in current agency list.

Agency Version Date: 07/11/2018 Agency Update Frequency: Annually Planned Next Contact: 05/06/2022

I C - MN: Remediation sites with institutional controls

Agency Version Date: 03/18/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/14/2022

STATE RCRA GENERATORS LIST

HWG - MN: Listing of permitted hazardous waste generators

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/18/2022

Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

STATE- AND TRIBAL - EQUIVALENT CERCLIS

MPCA REMEDIATION - MN: MPCA Remediation site listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

MPCA SUPERFUND - MN: MPCA Superfund site listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

SHWS - MN: Hazardous Waste RCRA and Integrated Remediation projects

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

Agency: Minnesota Pollution Control Agency

Agency Contact: 651-296-6300

Most Recent Contact: 02/04/2022

SRS - MN: Site remediation section sites listing

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022

STATE- AND TRIBAL - EQUIVALENT NPL

PLP - MN: Listing of priority contaminated sites

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VIC - MN: Voluntary investigation and cleanup program remediation site listing

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 03/18/2022 Agency Update Frequency: Varies Planned Next Contact: 06/14/2022 Agency: U.S. Department of Transportation Agency Contact: (202) 366-4996 Most Recent Contact: 03/18/2022

AG SPILLS - MN: Listing of pesticide and fertilizer spill incident sites

Agency Version Date: 02/11/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 05/11/2022

Agency: Minnesota Department of Agriculture Agency Contact: 651-201-6000 Most Recent Contact: 02/11/2022

HIST SPILLS - MN: Historical locations with known contamination from spills.

Agency Version Date: 03/16/2018 Agency Update Frequency: No Longer Maintained Planned Next Contact: 07/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2593 Most Recent Contact: 04/11/2022

RECORDS OF EMERGENCY RELEASE REPORTS (cont.)

SPILLS - MN: Locations with known contamination from spills

Agency Version Date: 03/25/2022 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2593 Most Recent Contact: 03/25/2022

TALES - MN: Tank leak and spill database site listing

Agency Version Date: 06/05/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 06/13/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/16/2022

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 09/17/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 03/10/2022

FED BROWNFIELDS: Federal brownfield remediation sites

Agency Version Date: 01/24/2022 Agency Update Frequency: Semi Annually Planned Next Contact: 07/18/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 04/21/2022

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 04/11/2022Agency: U.S. Department of JusticeAgency Update Frequency: QuarterlyAgency Contact: 202-307-7610Planned Next Contact: 07/07/2022Most Recent Contact: 04/11/2022

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019 Agency Update Frequency: Quarterly Planned Next Contact: 05/16/2022 Agency: U.S. Department of Justice Agency Contact: 202-307-7610 Most Recent Contact: 02/16/2022

CDL - MN: Methamphetamine Contaminated Properties

Agency Version Date: 04/06/2022 Agency Update Frequency: Varies Planned Next Contact: 07/04/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 201-5000 Most Recent Contact: 04/06/2022

MPCA SITE ASSESSMENT - MN: MPCA Site Assessment listing

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018 Agency Update Frequency: Annually Planned Next Contact: 07/04/2022 Agency: Indian Health Service Agency Contact: 855-246-3642 Most Recent Contact: 04/07/2022

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES (cont.)

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017 Agency Update Frequency: No Update Planned Next Contact: 05/10/2022 Agency: Indian Health Service Agency Contact: 855-246-3642 Most Recent Contact: 01/28/2022

Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 02/11/2022

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 02/21/2022 Agency Update Frequency: Varies Planned Next Contact: 05/19/2022 Agency: Indian Health Service Agency Contact: 301-443-3593 Most Recent Contact: 02/21/2022

SWRCY - MN: Listing of business that accept large (commercial) quantities of recyclables

Agency Version Date: 12/09/2021 Agency Update Frequency: Varies Planned Next Contact: 06/01/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/07/2022

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 06/13/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 800-424-9346 Most Recent Contact: 03/16/2022

HIST LIENS - MN: Historical Environmental Liens are institutional controls from the Site Remediation Systems

Agency Version Date: 08/02/2021 Agency Update Frequency: Varies Planned Next Contact: 07/18/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2573 Most Recent Contact: 04/21/2022

Agency: Minnesota Pollution Control Agency

Agency Contact: (651) 757-2573

Most Recent Contact: 04/21/2022

LIENS - MN: Environmental Liens are institutional controls from the Site Remediation Systems

Agency Version Date: 01/24/2022 Agency Update Frequency: Varies Planned Next Contact: 07/18/2022

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 01/31/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/28/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 01/31/2022

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 03/25/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/21/2022 Agency: U.S. Department of Energy Agency Contact: N/R Most Recent Contact: 03/25/2022 BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 12/30/2021 Agency Update Frequency: Biennial Planned Next Contact: 06/22/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/28/2022

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022 Agency: Agency for Toxic Substances and Disease Registry Agency Contact: 770-488-6399 Most Recent Contact: 01/28/2022

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency: Department of Energy

Agency Contact: (202) 586-8800

Most Recent Contact: 03/22/2022

Agency Contact: (202) 566-1667

Most Recent Contact: 02/01/2022

Agency Version Date: 09/29/2021 Agency Update Frequency: Varies Planned Next Contact: 06/16/2022

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 02/18/2021 Agency Update Frequency: Varies Planned Next Contact: 04/29/2022

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 01/07/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/01/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 04/04/2022

Agency: Environmental Protection Agency

COLLEGES: List of major Universities & Colleges

Agency Version Date: 04/15/2022 Agency Update Frequency: Varies Planned Next Contact: 07/13/2022 Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/15/2022

COLLEGES 2: List of Universities & Colleges

Agency Version Date: 02/08/2022 Agency Update Frequency: Varies Planned Next Contact: 07/14/2022 Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/18/2022

CONSENT (DECREES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022 Agency: Environmental Protection Agency Agency Contact: (800) 424-9346 Most Recent Contact: 01/28/2022

CORRECTIVE ACTIONS_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018 Agency Update Frequency: No Longer Maintained Planned Next Contact: 07/15/2022 Agency: U.S. Environmental Protection Agency Agency Contact: N/R Most Recent Contact: 04/19/2022 DEBRIS EPA LF: EPA list of designated landfill facilities for the safe disposal of disaster debris.

Agency Version Date: 01/14/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/08/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 04/12/2022

DEBRIS EPA SWRCY: EPA list of facilities for the safe recovery, recycling, and disposal of disaster debris.

Agency Version Date: 01/14/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/08/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 04/12/2022

DOD: Department of Defense sites from the Protected Areas Database (PAD-US)

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 07/22/2022

DOT OPS: Incident Data Report

Agency Version Date: 02/14/2022 Agency Update Frequency: Varies Planned Next Contact: 05/12/2022 Agency: United States Geologic Survey (USGS) Agency Contact: 1-888-275-8747 Most Recent Contact: 04/26/2022

Agency: U.S. Department of Transportation Agency Contact: (202) 366-4996 Most Recent Contact: 02/14/2022

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 03/22/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/16/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 202-566-1667 Most Recent Contact: 03/22/2022

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 03/19/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/02/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/08/2022

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 02/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/03/2022

Agency: U.S. Environmental Protection Agency Agency Contact: (202) 564-2307 Most Recent Contact: 02/04/2022

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 03/17/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/13/2022 Agency: U.S. Environmental Protection Agency Agency Contact: (202) 564-2307 Most Recent Contact: 03/17/2022

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018 Agency Update Frequency: No Longer Maintained Planned Next Contact: 06/13/2022 Agency: U.S. Environmental Protection Agency Agency Contact: (202) 564-2307 Most Recent Contact: 03/16/2022

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 04/04/2022 Agency Update Frequency: Varies Planned Next Contact: 06/30/2022 Agency: Environmental Protection Agency Agency Contact: (800) 424-9346 Most Recent Contact: 04/04/2022

FEDLAND: Federal Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 01/28/2022Agency: United States Geologic Survey (USGS)Agency Update Frequency: VariesAgency Contact: 1-888-275-8747Planned Next Contact: 07/22/2022Most Recent Contact: 04/26/2022

FRS: Facility Registry Systems

Agency Version Date: 02/09/2022 Agency Update Frequency: Varies Planned Next Contact: 05/06/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 02/09/2022

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/06/2013	Agency: Environmental Protection Agency
Agency Update Frequency: No Longer Maintained	Agency Contact: (202) 564-2280
Planned Next Contact: 06/28/2022	Most Recent Contact: 04/01/2022

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 06/21/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-2280 Most Recent Contact: 03/25/2022

FUDS: Defense sites that require cleanup

Agency Version Date: 02/07/2022 Agency Update Frequency: Varies Planned Next Contact: 05/05/2022 Agency: US Army Corps of Engineering Agency Contact: (202) 761-0011 Most Recent Contact: 02/07/2022

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 06/14/2019 Agency Update Frequency: Quarterly Planned Next Contact: 06/10/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/16/2022

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018 Agency Update Frequency: Quarterly Planned Next Contact: 07/11/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 04/14/2022

HIST DOD: Department of Defense historical sites

Agency Version Date: 01/28/2022 Agency Update Frequency: No Longer Maintained Planned Next Contact: 04/26/2022 Agency: Environmental Protection Agency Agency Contact: (800) 424-9346 Most Recent Contact: 01/28/2022

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018 Agency Update Frequency: Annually Planned Next Contact: 06/28/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 04/01/2022

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016 Agency Update Frequency: Annually Planned Next Contact: 07/07/2022 Agency: Nuclear Regulatory Commission Agency Contact: (800) 397-4209 Most Recent Contact: 04/11/2022

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018 Agency Update Frequency: No Update Planned Next Contact: 05/03/2022 Agency: Environmental Protection Agency Agency Contact: (703) 308-8404 Most Recent Contact: 02/04/2022

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018 Agency Update Frequency: Annually Planned Next Contact: 05/17/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-6582 Most Recent Contact: 02/18/2022

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018 Agency Update Frequency: Annually Planned Next Contact: 05/17/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-6582 Most Recent Contact: 02/18/2022

HIST SSTS: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019 Agency Update Frequency: Annually Planned Next Contact: 05/06/2022

HOSPITALS: List of major Hospitals

Agency Version Date: 04/15/2022 Agency Update Frequency: Varies Planned Next Contact: 07/13/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 02/08/2022

Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/15/2022

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 11/09/2021 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: U.S. Environmental Protection Agency Agency Contact: (202) 564-2307 Most Recent Contact: 02/03/2022

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 12/28/2021 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/25/2022

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 12/28/2021 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-6582 Most Recent Contact: 03/25/2022

INDIAN RESERVATION: American Indian Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 07/22/2022

LUCIS: Land Use Control Information Systems

Agency Version Date: 03/18/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/16/2022

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018 Agency Update Frequency: No Longer Maintained Planned Next Contact: 05/03/2022 Agency: United States Geologic Survey (USGS) Agency Contact: 1-888-275-8747 Most Recent Contact: 04/26/2022

Agency: Department of the Navy: BRAC PMO Agency Contact: (619) 532-0900 Most Recent Contact: 03/18/2022

Agency: Department of the Navy: BRAC PMO Agency Contact: (619) 532-0900 Most Recent Contact: 02/04/2022

MANIFEST EPA: EPA Hazardous Waste Electronic Manifest System (e-Manifest)

Agency Version Date: 02/08/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/06/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 02/08/2022

MINE OPERATIONS: Mine plants and operations for commodities monitored by the National Minerals Information Center of the USGS

Agency Version Date: 02/11/2022 Agency Update Frequency: Varies Planned Next Contact: 05/10/2022

MINES: Mines Master Index Files

Agency Version Date: 03/28/2022 Agency Update Frequency: Varies Planned Next Contact: 06/23/2022 Agency: USGS Mineral Resources Program Agency Contact: (703) 648-5953 Most Recent Contact: 02/11/2022

Agency: Department of Labor Agency Contact: (202) 693-9400 Most Recent Contact: 03/28/2022

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 02/11/2022 Agency Update Frequency: Varies Planned Next Contact: 05/10/2022 Agency: USGS Mineral Resources Program Agency Contact: (703) 648-5953 Most Recent Contact: 02/11/2022

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 01/21/2022 Agency Update Frequency: Varies Planned Next Contact: 07/15/2022 Agency: Nuclear Regulatory Commission Agency Contact: (800) 397-4209 Most Recent Contact: 04/19/2022

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: Environmental Protection Agency Agency Contact: N/R Most Recent Contact: 01/28/2022

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

NURSING HOMES: List of Nursing Homes

Agency Version Date: 01/14/2022
Agency Update Frequency: Varies
Planned Next Contact: 07/08/2022

Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/12/2022

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 12/27/2021 Agency Update Frequency: Varies Planned Next Contact: 06/20/2022 Agency: Occupational Safety & Health Administration Agency Contact: 800-321-6742 Most Recent Contact: 03/24/2022

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022 Agency: Environmental Protection Agency Agency Contact: (703) 308-8404 Most Recent Contact: 01/28/2022

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 02/11/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/10/2022 Agency: Environmental Protection Agency Agency Contact: (703) 308-8404 Most Recent Contact: 02/11/2022

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 03/25/2022 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-6582 Most Recent Contact: 03/25/2022

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 12/28/2021 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: Environmental Protection Agency Agency Contact: (202) 564-6582 Most Recent Contact: 03/25/2022

PFAS NPL: List of NPL sites with PFAS or PFOA contamination

Agency Version Date: 04/01/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/28/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 04/01/2022

PFAS TRIS: List of TRIS sites where PFAS or PFOA are used/manufactured/ treated/ transported/released.

Agency Version Date: 03/25/2022 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022 Agency: U.S. Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/25/2022

PFAS UCMR3: List of PWS wells sampled for Unregulated Contaminant Monitoring Rule (UCMR)

Agency Version Date: 03/08/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/02/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 03/08/2022

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019 Agency Update Frequency: Varies Planned Next Contact: 07/14/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 04/18/2022

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/30/2022

Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 04/06/2022

Agency: Environmental Protection Agency

Agency Contact: (202) 564-2534

Most Recent Contact: 04/01/2022

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 01/04/2022 Agency Update Frequency: Monthly Planned Next Contact: 06/28/2022

ROD: Permanent remedy at an NPL site

Agency Version Date: 01/28/2022 Agency Update Frequency: Varies Planned Next Contact: 04/26/2022

SCHOOLS PRIVATE: List of Private Schools

Agency Version Date: 04/15/2022 Agency Update Frequency: Varies Planned Next Contact: 07/13/2022

SCHOOLS PUBLIC: List of Public Schools

Agency Version Date: 02/08/2022 Agency Update Frequency: Varies Planned Next Contact: 07/13/2022 Agency: Environmental Protection Agency Agency Contact: (800) 424-9346 Most Recent Contact: 01/28/2022

Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/15/2022

Agency: DHS Homeland Infrastructure Foundation Agency Contact: N/R Most Recent Contact: 04/15/2022

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 03/02/2022 Agency Update Frequency: No Update Planned Next Contact: 05/27/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/02/2022

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 01/28/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/26/2022 Agency: U.S. Environmental Protection Agency Agency Contact: 703-603-8867 Most Recent Contact: 01/28/2022

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 03/08/2022 Agency Update Frequency: Annually Planned Next Contact: 06/02/2022

STORMWATER: Permitted storm water sites

Agency Version Date: 03/18/2022 Agency Update Frequency: Varies Planned Next Contact: 06/14/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/08/2022

Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/18/2022

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 03/14/2022 Agency Update Frequency: Varies Planned Next Contact: 06/09/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/14/2022

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 03/25/2022 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022

UMTRA: Uranium Recovery Sites

Agency Version Date: 07/08/2021 Agency Update Frequency: Varies Planned Next Contact: 06/21/2022

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 03/19/2021 Agency Update Frequency: Varies Planned Next Contact: 06/03/2022 Agency: Environmental Protection Agency Agency Contact: (202) 566-1667 Most Recent Contact: 03/25/2022

Agency: United States Nuclear Regulatory Commission Agency Contact: (301) 415-8200 Most Recent Contact: 03/25/2022

Agency: U.S. Environmental Protection Agency Agency Contact: 855-246-3642 Most Recent Contact: 03/08/2022

AG_LICENSES - MN: Fertilizer related facilities from the Minnesota Department of Agriculture Licensing Data

Agency Version Date: 03/24/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/20/2022

AIRS - MN: Facilities with air permits

Agency Version Date: 02/03/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/02/2022 Agency: Minnesota Department of Agricultural Agency Contact: 612.626.2969 Most Recent Contact: 03/24/2022

Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/03/2022

BULK - MN: Listing of facilities that hold a bulk fertilizer/pesticide storage permit

Agency Version Date: 02/08/2022 Agency Update Frequency: Semi Annually Planned Next Contact: 05/06/2022

COAL ASH - MN: Coal Ash Disposal Site listing

Agency Version Date: 02/11/2022 Agency Update Frequency: Varies Planned Next Contact: 05/09/2022 Agency Contact: 651-201-6000 Most Recent Contact: 02/08/2022

Agency: Minnesota Department of Agriculture

Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2373 Most Recent Contact: 02/11/2022

DRYCLEANERS - MN: Registered Drycleaning Facilities and laundries

Agency Version Date: 03/10/2022 Agency Update Frequency: Varies Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2573 Most Recent Contact: 03/10/2022

EMI - MN: Point Source Air Emissions Inventory

Agency Version Date: 07/13/2021 Agency Update Frequency: Quarterly Planned Next Contact: 06/28/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 04/01/2022

ENF - MN: Listing of generators with enforcement actions

Agency Version Date: 03/08/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/02/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 218-316-3887 Most Recent Contact: 03/08/2022

FA 2 - MN: Solid Waste Facilities with FA

Agency Version Date: 02/18/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/17/2022

FA 3 - MN: Hazardous Waste sites with FA

Agency Version Date: 03/17/2022 Agency Update Frequency: Varies Planned Next Contact: 06/15/2022

FEEDLOTS - MN: List of Feedlot Sites

Agency Version Date: 03/31/2022 Agency Update Frequency: Varies Planned Next Contact: 05/05/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2220 Most Recent Contact: 02/18/2022

Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2220 Most Recent Contact: 03/17/2022

Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/07/2022

HIST AGVIC - MN: List of Agricultural Cleanup sites that are no longer in current agency list.

Agency Version Date: 01/28/2019 Agency Update Frequency: Annually Planned Next Contact: 07/12/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 04/15/2022

HIST DRYCLEANERS - MN: List of Registered Drycleaning Facilities and laundries that are no longer in current agency list.

Agency Version Date: 07/01/2019 Agency Update Frequency: Annually Planned Next Contact: 06/13/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2573 Most Recent Contact: 03/16/2022

HIST FA 2 - MN: Historical Solid Waste Facilities with FA

Agency Version Date: 02/26/2019 Agency Update Frequency: Quarterly Planned Next Contact: 05/12/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2220 Most Recent Contact: 02/15/2022

HIST MANIFEST - MN: List of Hazardous Waste Manifest sites that are no longer in current agency list.

Agency Version Date: 08/08/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 07/05/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2382 Most Recent Contact: 04/08/2022

HIST UNPERM LF - MN: List of solid waste facilities that accept waste but do not hold a permit at this time and are no longer in current agency list.

Agency Version Date: 09/10/2018 Agency Update Frequency: Annually Planned Next Contact: 06/27/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/31/2022

HIST WIMN - MN: List of WIMN sites involved in the site assessments, emergency management, environmental review, petroleum tanks, and other programs that is no longer in current agency list.

Agency Version Date: 12/12/2018 Agency Update Frequency: Annually Planned Next Contact: 07/04/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 04/07/2022

HWS PERMIT - MN: List of Hazardous Waste Permit Sites

Agency Version Date: 02/04/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/03/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/04/2022

MANIFEST - MN: Hazardous Waste Manifest sites

Agency Version Date: 08/08/2017 Agency Update Frequency: No Longer Maintained Planned Next Contact: 07/05/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 757-2382 Most Recent Contact: 04/08/2022

MANIFEST_SCOTT COUNTY - MN: MANIFEST records for Scott County, Minnesota

Agency Version Date: 03/03/2018Agency: Scott County, MNAgency Update Frequency: No Longer MaintainedAgency Contact: (952) 445-7750Planned Next Contact: 05/31/2022Most Recent Contact: 03/04/2022

MDA LIC - MN: Minnesota Department of Agriculture licensed facilities

Agency Version Date: 02/24/2022 Agency Update Frequency: Varies Planned Next Contact: 05/23/2022 Agency: Minnesota Department of Agriculture Agency Contact: 651-201-6000 Most Recent Contact: 02/24/2022

MPCA UNPERM LF - MN: List of Unpermitted LF sites from the MPCA Remediation database.

Agency Version Date: 03/10/2022 Agency Update Frequency: Quarterly Planned Next Contact: 06/06/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 03/10/2022

NPDES - MN: Listing of facilities with wastewater and NPDES permits

Agency Version Date: 02/03/2022 Agency Update Frequency: Quarterly Planned Next Contact: 05/02/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/03/2022

PFAS - MN: List of PFAS sites and areas of interest

Agency Version Date: 01/12/2022 Agency Update Frequency: Quarterly Planned Next Contact: 07/08/2022 Agency: Minnesota Pollution Control Agency Agency Contact: N/R Most Recent Contact: 04/11/2022

T 2 - MN: List of facilities that submit an Emergency and Hazardous Chemical Inventory Form

Agency Version Date: 09/23/2021 Agency Update Frequency: Varies Planned Next Contact: 06/16/2022 Agency: Minnesota Pollution Control Agency Agency Contact: (651) 201-7417 Most Recent Contact: 03/18/2022

WIMN - MN: Listing of WIMN sites involved in the site assessments, emergency management, environmental review, petroleum tanks, and other programs

Agency Version Date: 02/02/2022 Agency Update Frequency: Quarterly Planned Next Contact: 04/29/2022 Agency: Minnesota Pollution Control Agency Agency Contact: 651-296-6300 Most Recent Contact: 02/02/2022

SUBJECT PROPERTY ADDRESS:

Lester Park 4th Division 6401 E Superior St Duluth, MN 55804

SUBJECT PROPERTY COORDINATES:

Latitude(North): Longitude(West): Universal Transverse Mercator: UTM X (Meters): UTM Y (Meters): State Plane Coordinates: X Coordinate (Feet):	46.843605 - 46°50'37" -92.00067592°0'2.4" Zone 15N 576195.41 5188269.52 2201 - Minnesota North (US Survey Feet) 2899782.183 E
Y Coordinate (Feet):	455370.186 N
ELEVATION: Elevation:	696 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	46091-G8 Lakewood, MN	
Most Recent Revision:	2019	
Subject Property Map:	46092-G1 Duluth, MN	
Most Recent Revision:	2019	

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: Southwest

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
ST. LOUIS	No available data.
Flood Plain Panel at Subject Property:	No available data
Additional Panels in search area:	No available data

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
ST. LOUIS	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	2704210030C
Additional Panels in search area:	2704210015C
Additional Panels in search area:	2704210015C

NATIONAL WETLAND INVENTORY:

	NWI Electronic
NWI Quad at Subject Property:	Data Coverage:
Lakewood	Yes - refer to the Geological Findings Map

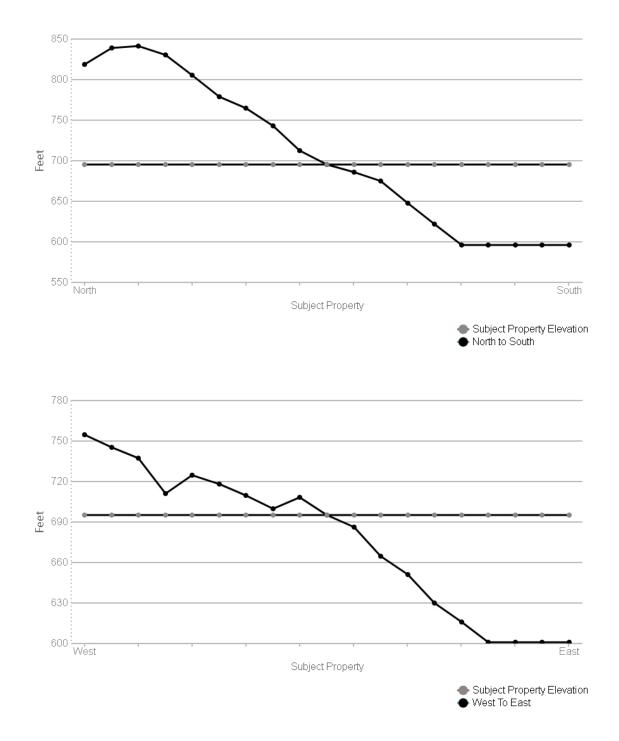
LITHOSTRATIGRAPHIC INFORMATION:

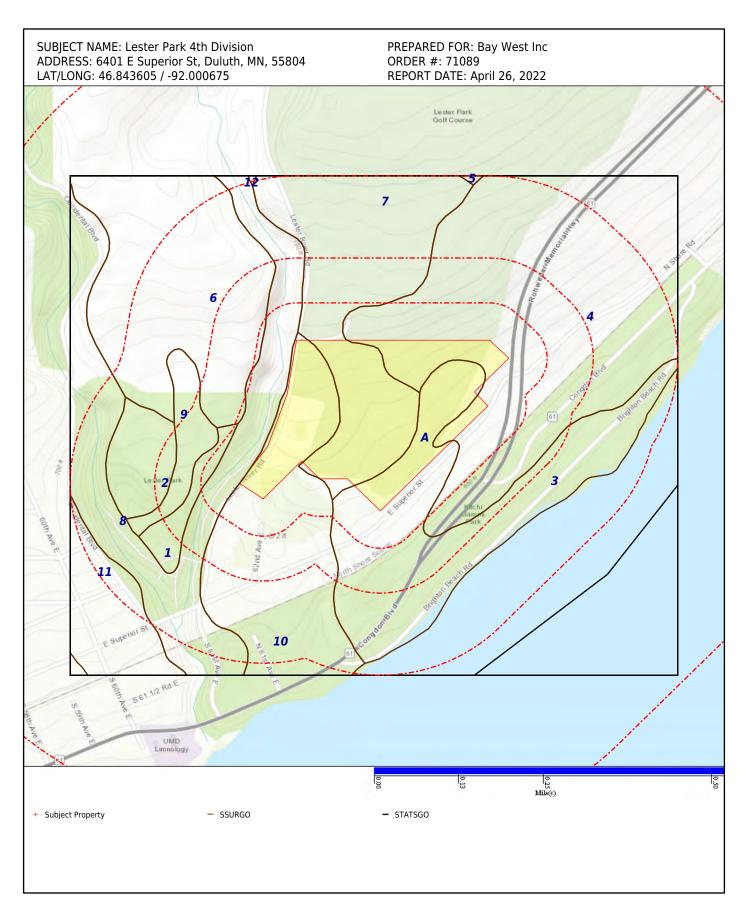
ROCK STRATIGRAPHIC UNIT:

GEOLOGIC AGE IDENTIFICATION

	Precambrian Y Y volcanic rocks Yv	Category: 144 Yv Y volcanic rocks
--	--	-----------------------------------

SURROUNDING ELEVATION PROFILES:





SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY: Agency source: Soil Conservation Service, US Department of Agriculture

SOIL MAP ID 1	SSURGO
USDA Soil Name	Udifluvents,Taxon above family
USDA Soil Texture	Loam
Hydrologic Soil Group	С
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-20	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	4.5-6
2	20-102	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	4.5-6
3	102-203	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM,	4.23-141.14	6.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	102-203	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	1984).	4.23-141.14	6.1-7.3

SOIL MAP ID 2	SSURGO
USDA Soil Name	Udifluvents,Taxon above family
USDA Soil Texture	Loam
Hydrologic Soil Group	С
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-20	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	4.5-6
2	20-102	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	4.23-141.14	4.5-6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	20-102	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	4.5-6
3	102-203	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	6.1-7.3

SOIL MAP ID 3

SSURGO

USDA Soil Name	Barto,Series
USDA Soil Texture	Sandy loam
Hydrologic Soil Group	D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-5	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
2	5-33	Sandy loam	Reference: This is a	COARSE-GRAINED SOILS,	4.23-42.34	4.5-6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	5-33	Sandy loam	classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
3	33-203		No data	No data	0-0.07	0-0

SOIL MAP ID 4

SSURGO

USDA Soil Name	Barto,Series
USDA Soil Texture	Sandy loam
Hydrologic Soil Group	D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-5	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
2	5-33	Sandy loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75	4.23-42.34	4.5-6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	5-33	Sandy loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
3	33-203		No data	No data	0-0.07	0-0

SOIL MAP ID 5

SSURGO

USDA Soil Name	Amnicon,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	10-20	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	4.23-14.11	4.5-5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	10-20	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	4.5-5
3	20-33	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
4	33-76	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	6.6-7.8
5	76-114	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	0-0.42	7.4-8.4

Geological Landscape Section Summary

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
5	76-114	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
6	114-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID 6

SSURGO

	5501100
USDA Soil Name	Amnicon,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials,	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	1.41-14.11	4.5-6.6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	10-20	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	4.5-5
3	20-33	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
4	33-76	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM,	0-0.42	6.6-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
4	33-76	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	1984).	0-0.42	6.6-7.8
5	76-114	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
6	114-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID 7	SSURGO
USDA Soil Name	Cuttre,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	20
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-13	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	13-20	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
3	20-66	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	0-0.42	6.6-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	20-66	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	0-0.42	6.6-7.8
4	66-165	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
5	165-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID 8	SSURGO
USDA Soil Name	Miskoaki,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-8	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	8-15	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
3	15-48	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	0-0.42	6.6-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	15-48	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	0-0.42	6.6-7.8
4	48-122	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
5	122-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID 9	SSURGO
USDA Soil Name	Udifluvents,Taxon above family
USDA Soil Texture	Sandy loam
Hydrologic Soil Group	A/D
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	65
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-20	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
2	20-109	Coarse sandy loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.1-6.5
3	109-122	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	4.5-6
4	122-203	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty	Reference: This is a classification of soil material designed for	4.23-141.14	6.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
4	122-203	Silt loam	soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-141.14	6.1-7.3

SOIL MAP ID 10

SSURGO

USDA Soil Name	Cuttre,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	20
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-13	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	13-20	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	0.42-4.23	5.1-6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	13-20	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
3	20-66	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	6.6-7.8
4	66-165	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
5	165-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	0-1.41	7.9-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
5	165-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID 11	SSURGO
USDA Soil Name	Urban land,Miscellaneous
	area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

SOIL MAP ID 12	SSURGO
USDA Soil Name	Miskoaki,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-8	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in	1.41-14.11	4.5-6.6

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-8	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	4.5-6.6
2	8-15	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	5.1-6
3	15-48	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	6.6-7.8
4	48-122	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and	0-0.42	7.4-8.4

Geological Landscape Section Summary

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
4	48-122	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.42	7.4-8.4
5	122-203	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-1.41	7.9-8.4

SOIL MAP ID A

STATSGO

USDA Soil Name	Ontonagon,Series
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	17
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-3	Silty clay loam	No data	No data	1.4114-4.2343	4.5-6.5
2	3-18	Clay	No data	No data	0-0.4234	4.5-7.3
3	18-60	Clay	No data	No data	0-0.4234	7.4-8.4

WATER AGENCY SEARCH DISTANCES:

DATABASE:	SEARCH DISTANCE (MILES):
NWIS	1.000
PWS	1.000
WELLS - MN	1.000

DISTANCE TO NEAREST:	DISTANCE:
NWIS	0.289 mi / 1525 ft
PWS	0.383 mi / 2025 ft
WELLS - MN	0.277 mi / 1462 ft

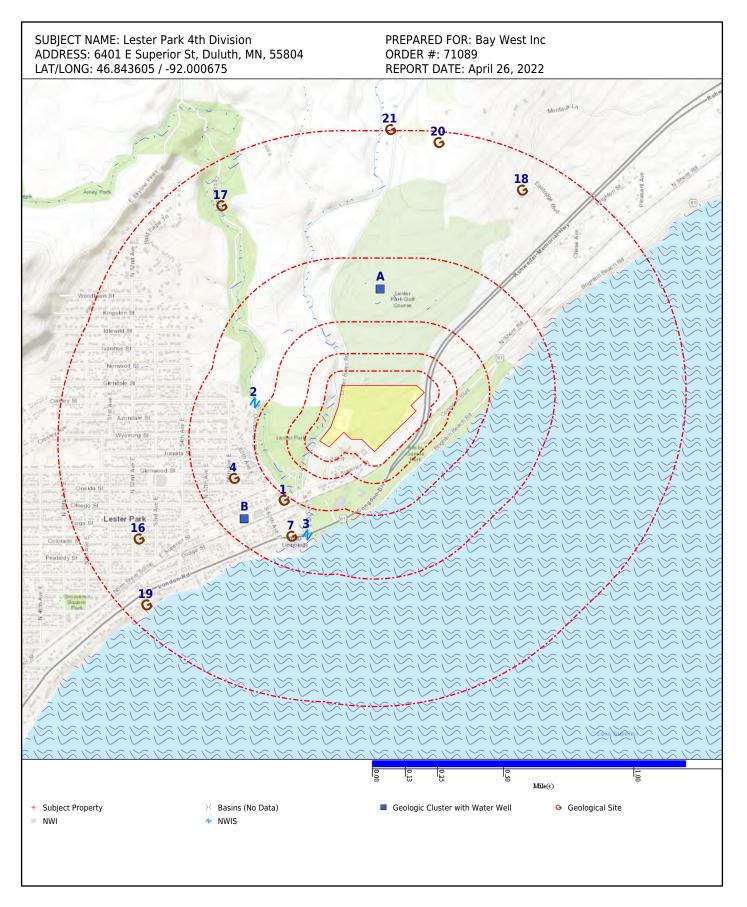
FEDERAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
2	04015387	1/4 - 1/2 Mile W
3	04015390	1/4 - 1/2 Mile SW
7	MN5160492	1/4 - 1/2 Mile SW
16	LIVING STONES FELLOWSHIP ASSEMBLY OF GOD Livingstone Church MN5690328	1/2 - 1 Mile WSW
17	ми5690069	1/2 - 1 Mile NW

Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
1	739034	1/4 - 1/2 Mile SW
4	340256	1/4 - 1/2 Mile WSW
A5	559217	1/4 - 1/2 Mile N
A6	559216	1/4 - 1/2 Mile N
A8	559218	1/4 - 1/2 Mile N
B9	710311	1/4 - 1/2 Mile WSW
B10	710307	1/4 - 1/2 Mile WSW
B11	710309	1/4 - 1/2 Mile WSW
B12	710312	1/4 - 1/2 Mile WSW
B13	710310	1/4 - 1/2 Mile WSW
B14	710313	1/4 - 1/2 Mile WSW
B15	710308	1/4 - 1/2 Mile WSW
18	661305	1/2 - 1 Mile NE
19	636600	1/2 - 1 Mile WSW
20	636413	1/2 - 1 Mile NNE
21	616153	1/2 - 1 Mile N



Map Id: 1 Direction: SW Distance: 0.277 mi., 1463 ft. Elevation: 655 ft. Relative: Lower

Site Name : 739034 N/R MN

Database(s): [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation MC : Loc MC : Loc MC : Loc SRC : Deth Drill : Depth Comp : Date Drill : Case Diameter : Case Diameter : Case Depth : Grout : Pollut Dst : Pollut Dst : Pollut Dir : Pollut Type : Strat Date : Strat Quate : Strat SRC : Strat SRC : Strat Geol : Strat SRC : Strat SRC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC :	RED PINE DEVELOPMENT LLC Active Elevator 69 SEC 5, TWP 50, RNG 13W DDACCC 244D 654.0 L1 1 CPZ L0008 39.0 2006-04-08 16.0 39.0 Y 0 N/R N/R 2006-09-14 2019-12-04 MGS ARB Q 4.0 PMUS PMUS PMUS PMUS PMUS PMUS PMUS N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Entry Date :	0
GCM Code :	G60
Geoc PRG :	CWI
Geoc Entry : Geoc Date :	619007.0 2018-04-06
Geoc Update EN :	0.0
Geoc Update Date : Received Date :	0 2006-05-08
SWL Count :	0.0
SWL Date :	0
SWL Average Measure :	0.0
SWL Average Elevation :	0.0

Envirosite ID: 47426375 EPA ID: N/R

Map Id: 1 Direction: SW Distance: 0.277 mi., 1463 ft. Elevation: 655 ft. Relative: Lower	Site Name : 739034 N/R MN Database(s) : [WELLS - MN] (cont.)	Envirosite ID: 47426375 EPA ID: N/R
WELLS - MN (cont.)		
BDRK Elevation : OH Top Elevation :	650.0 615.0	
OH Bot Elevation : Bot Hole Elevation :	615.0 615.0 .ist : 2022-04-20	

Map Id: 2 Direction: W Distance: 0.289 mi., 1526 ft. Elevation: 718 ft. Relative: Higher Database(s): [NWIS]

Envirosite ID: 15276289 EPA ID: N/R

NWIS

Site Identification Number :04015387Site Type :StreamStation Name :AMITY CREEK AT DULUTH, MNAgency :U.S. Geological SurveyDistrict :N/RState :MNCounty :USACounty :USALand Net Location Map :N/RScale of Location Map :N/RAltitude of Gage/Land Surface :N/RAltitude Accuracy :N/RAltitude Accuracy :N/RAltitude Datum :N/RHydrologic Unit :Beaver-LesterDrainage Basin :N/RFlags for the Type of Data Collected:NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
--

Map Id: 2 Direction: W Distance: 0.289 mi., 1526 ft. Elevation: 718 ft. Relative: Higher

Site Name :	04015387 46.844104, -92.010187 MN
Database(s) :	[NWIS] (cont.)

Envirosite ID: 15276289 EPA ID: N/R

NWIS (cont.)

Water-Quality Data Begin Date : Water-Quality Data End Date :	N/R N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin	
Date:	N/R
Field Water-level Measurements End	
Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	1970-08-10
Site-Visit Data End Date :	2008-07-23
Site-Visit Data Count :	29
Latitude :	46.844104
Longitude :	-92.010187
Last Date in Agency List :	2021-12-15

Map Id: 3 Direction: SW Distance: 0.361 mi., 1908 ft. Elevation: 601 ft. Relative: Lower

Site Name :	04015390 46.836604, -92.006021 MN
Database(s) :	[NWIS]

Envirosite ID: 13682663 EPA ID: N/R

NWIS

Site Identification Number : Site Type : Station Name : Agency : District : State : County : County : Land Net Location : Name of Location Map : Scale of Location Map : Altitude of Gage/Land Surface : Method Altitude Determined : Altitude Accuracy : Altitude Datum : Hydrologic Unit : Drainage Basin : Topographic Setting : Flags for the Type of Data Collected: Flags for Instruments at Site : Date of First Construction : Date Site Established or Inventoried: Drainage Area : Contributing Drainage Area : Data Colher GW Files : National Aquifer :	04015390 Stream LESTER RIVER AT DULUTH, MN U.S. Geological Survey N/R MN St. Louis County USA N/R N/R N/R N/R N/R N/R N/R N/R
--	--

Map Id: 3 Direction: SW Distance: 0.361 mi., 1908 ft. Elevation: 601 ft. Relative: Lower

Site Name :	04015390 46.836604, -92.006021 MN
Database(s) :	[NWIS] (cont.)

NWIS (cont.)

Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	MN-00112
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin	Ŭ
Date:	N/R
Field Water-level Measurements End	
Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	1970-08-10
Site-Visit Data End Date :	2006-07-12
Site-Visit Data Count :	12
Latitude :	46.836604
Longitude :	-92.006021
Last Date in Agency List :	2021-12-15

Map Id: 4 Envirosite ID: 47494378 Site Name : 340256 Direction: WSW EPA ID: N/R Distance: 0.363 mi., 1917 ft. N/R Elevation: 691 ft. MN Relative: Lower Database(s): [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County :	TEMPORARY WELL Sealed Monitor Well 69
Section/Township/Range :	SEC 5, TWP 50, RNG 13W
Sub Section :	DCAACB
MGS Quad C :	244D
Elevation :	691.0
Elevation MC :	L1
Loc MC :	1
Loc SRC :	MGS
Data SRC :	2622
Depth Drill :	13.5
Depth Comp :	13.5
Date Drill :	2017-04-24
Case Diameter :	0.0
Case Depth :	0.0
Grout :	Y
Pollut Dst :	0

Envirosite ID: 13682663 EPA ID: N/R Map Id: 4 Direction: WSW Distance: 0.363 mi., 1917 ft. Elevation: 691 ft. Relative: Lower

Site Name : 340256 N/R MN Database(s) : [WELLS - MN] *(cont.)*

WELLS - MN (cont.)

Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC : Geoc PRG : Geoc Date : Geoc Update EN : Geoc Update I SWL Count : SWL Average Measure : SWL Average Elevation : BDRK Elevation : OH Top Elevation : OH Bot Elevation :	N/R N/R 0 2018-05-07 MGS BB Q 0.0 N/R QNUR N/R N/R N/R N/R N/R N/R N/R N/R N/R N/
Last Date in Agency List :	2022-04-20

Envirosite ID: 47494378 EPA ID: N/R Map Id: A5 Direction: N Distance: 0.377 mi., 1993 ft. Elevation: 838 ft. Relative: Higher

Site Name : 559217 N/R MN Database(s) : [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC :	MW-2 Sealed Monitor Well 69 SEC 4, TWP 50, RNG 13W BABBCB 244D 838.0 L1 S MGS
Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter : Case Depth : Grout : Pollut Dst :	M0142 15.0 15.0 1995-03-28 2.0 8.0 Y 40
Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer :	N Volatile organic compounds 2008-09-10 2017-03-08 MGS BB Q 0.0 N/R QCUU QCUU QCUU QCUU QCUU QCUU QCUU QCU
Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date :	N/R N/R N/R N/R N/R Y N/R MGS N 2008-09-10 2020-09-06
Geoc Type : GCM Code : Geoc SRC : Geoc PRG : Geoc Date : Geoc Update EN : Geoc Update EN : Geoc Update Date : Received Date : SWL Count : SWL Date : SWL Average Measure : SWL Average Elevation :	N/R DS2 MGS CWI 619079.0 2016-03-16 0.0 0 1.0 1.995-03-28 10.0 828.0

Envirosite ID: 47241515 EPA ID: N/R

Map Id: A5 Direction: N Distance: 0.377 mi., 1993 ft. Elevation: 838 ft. Relative: Higher	Site Name : Database(s) :	559217 N/R MN [WELLS - MN] (cont.)	Envirosite ID: 47241515 EPA ID: N/R
WELLS - MN (cont.) BDRK Elevation : OH Top Elevation : OH Bot Elevation : Bot Hole Elevation : Last Date in Agency Li	st :	0.0 830.0 823.0 823.0 2022-04-20	

Map ld: A6 Direction: N Distance: 0.379 mi., 2003 ft. Elevation: 840 ft. Relative: Higher	Site Name :	559216 N/R MN	Envirosite ID: 47451185 EPA ID: N/R
Database(s)	Database(s) :	[WELLS - MN]	

WELLS - MN

Well Name :	MW-1
Status :	Sealed
	Monitor Well
Use :	69
County :	
Section/Township/Range : Sub Section :	SEC 4, TWP 50, RNG 13W BABBCB
MGS Quad C :	243C
Elevation : Elevation MC :	838.0 L1
Loc MC :	S
Loc SRC :	MGS
Data SRC :	M0142
Depth Drill :	18.0
Depth Comp :	18.0
Date Drill :	1995-03-27
Case Diameter :	2.0
Case Depth :	18.0
Grout :	Y
Pollut Dst :	30
Pollut Dir :	NW
Pollut Type :	Volatile organic compounds
Strat Date :	2008-09-10
Strat Update :	2017-03-08
Strat SRC :	MGS
Strat Geol :	BB
Strat MC :	Q
Depth 2 BDRK :	0.0
First BDRK :	N/R
Last Strat :	QCUU
OH Top Unit :	QCUU
OH Bot Unit :	QCUU
Aquifer :	QWTA
Cuttings :	N/R
Core :	N/R
BH Geo Phys :	N/R
Geo Chem :	N/R
Water Chem :	N/R

Map Id: A6 Direction: N Distance: 0.379 mi., 2003 ft. Elevation: 840 ft. Relative: Higher

Site Name :	559216 N/R MN
	IVIIN
Database(s) :	[WELLS - MN] (cont.)

Envirosite ID: 47451185 EPA ID: N/R

WELLS - MN (cont.)

OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC : Geoc PRG : Geoc Date : Geoc Update EN : Geoc Update Date : Received Date : SWL Count : SWL Count : SWL Average Measure : SWL Average Measure : SWL Average Elevation : BDRK Elevation : OH Top Elevation : Bot Hole Elevation : Bot Hole Elevation : Last Date in Agency List :	N/R Y N/R MGS N 2008-09-10 2020-09-06 N/R DS2 MGS CWI 619079.0 2016-03-16 0.0 0 0 1.0 1995-03-27 10.0 828.0 0.0 820.0 820.0 820.0 820.0 2022-04-20
Last Date in Agency List :	2022-04-20

Direction: SW Distance: 0.383 mi., 2025 ft. Elevation: 622 ft. Relative: Lower Batabase(s): [PWS, PWS ENF]
--

PWS

Facility Address :

PWS ID : PWS Type : PWS Name : Activity Status : Primary Source : Submission Year : Submission Year Quarter : Population Served Count : Service Connections Count : Population Category 2 : Population Category 3 : Population Category 4 : Population Category 5 : Population Category 11 : 6008 London Road, Duluth, MN 55802

MN5160492 Transient non-community system Sugarloaf Cove Interpretive Center Active Ground water 2021 2021Q4 25 1 <10,000 <=3300 <10K <=500 <=100 Map Id: 7 Direction: SW Distance: 0.383 mi., 2025 ft. Elevation: 622 ft. Relative: Lower

Site Name : MN5160492 6008 London Road Duluth, MN 55802 Database(s) : [PWS, PWS ENF] (cont.) Envirosite ID: 3546637 EPA ID: N/R

PWS (cont.)

PWS ENF

Site

	Submission Quarter :	4
	Submission Status Code :	Y
	First Reported Date :	2005-12-06
	Last Reported Date :	2021-12-02
	Deactivation Date :	N/R
	GW or SW :	Groundwater
	Is Grant Eligible :	Y
	Is Outstanding Performer :	N/R
	Is School or Daycare :	N
	Is Source Water Protected :	N/R
	Primacy Agency :	Minnesota
	Primacy Type :	State
	Org Name :	Sugarloaf: The North Shore Stewardship Association
	EPA Region :	Region 5
	Admin Name :	N/R
	Owner Type :	Private
	Phone Number :	N/R
	Phone Ext Number :	N/R
		-
	Alt Phone Number : Email Address :	N/R
		N/R
	Fax Number :	N/R
	Is Wholesaler :	N
	LT2 Schedule Category :	N/R
	NPM Candidate :	Ŷ
	CDS ID :	9999
	DBPR Schedule Category :	N/R
	Outstanding Performer Date :	N/R
	Season Begin Date :	01-01
	Season End Date :	12-31
	Source Water Protection Date :	N/R
	Seasonal Startup System :	N/R
	Reduced Monitoring Begin Date :	2016-04-01
	Reduced Monitoring End Date :	N/R
	Reduced RTCR Monitoring :	Annual
	Last Date in Agency List :	2022-02-03
	Facility Address :	6008 London Road, Duluth, MN 55802
e D	etails	
	PWS ID :	MN5160492
	PWS Name :	Sugarloaf Cove Interpretive Center
	EPA Region :	Region 5
	Primacy Agency :	Minnesota
	PWS Type :	Transient non-community system
	Primacy Type :	State
	Primary Source :	Ground water
	Activity Status :	Active
	Deactivation Date :	N/R
	Owner Type :	Private
	Phone Number :	N/R
	Last Date in Agency List :	2022-03-28

Map Id: 7 Direction: SW Distance: 0.383 mi., 2025 ft. Elevation: 622 ft. Relative: Lower

Site Name : MN5160492 6008 London Road Duluth, MN 55802 Database(s) : [PWS, PWS ENF] (cont.) Envirosite ID: 3546637 EPA ID: N/R

PWS ENF (cont.)

Violation Details **RTC Enforcement ID :** Violation ID : Submission Year : Violation First Reported Date : Contaminant Name : Rule Family : Rule Group : Rule Name : Violation Type : Is Health Based : Is Major Violation : Severity Indicator Count : Public Notification Tier : Address Line 1 : Address Line 2 : Compliance Status : RTC Date : Enforcement Action Description : Admin Name : Email Address :

> RTC Enforcement ID : Violation ID : Submission Year : Violation First Reported Date : Contaminant Name : **Rule Family :** Rule Group : Rule Name : Violation Type : Is Health Based : Is Maior Violation : Severity Indicator Count : Public Notification Tier : Address Line 1 : Address Line 2 : Compliance Status : RTC Date : Enforcement Action Description : Admin Name : Email Address :

345239 36058 2021 2008-08-28 Coliform (TCR) Total Coliform Rules Microbials Total Coliform Rule Maximum Contaminant Level Violation, Monthly (TCR) Y N/R N/R 2 6008 London Road, Duluth, 55802 N/R **Returned to Compliance** 2008-11-12 State Compliance achieved N/R N/R 606962 50650 2021

2016-03-01 Coliform (TCR) Total Coliform Rules Microbials Total Coliform Rule Maximum Contaminant Level Violation, Monthly (TCR) Y N/R N/R 2 6008 London Road, Duluth, 55802 N/R Returned to Compliance 2016-05-18 State Compliance achieved Map Id: A8 Direction: N Distance: 0.391 mi., 2065 ft. Elevation: 839 ft. Relative: Higher

Site Name : 559218 N/R MN

Database(s): [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter :	MW-3 Sealed Monitor Well 69 SEC 4, TWP 50, RNG 13W BABBBD 243C 839.0 L1 S MGS M0142 12.0 12.0 12.0 1995-03-28 2.0
Case Depth :	5.0
Grout :	Y
Pollut Dst :	40
Pollut Dir :	NE
Pollut Type :	Volatile organic compounds
Strat Date : Strat Update :	2008-09-10 2017-03-08
Strat SRC :	MGS
Strat Geol :	BB
Strat MC :	Q
Depth 2 BDRK :	0.0
First BDRK :	N/R
Last Strat :	QCUU
OH Top Unit :	QCUU
OH Bot Unit :	QCUU
Aquifer : Cuttings :	QWTA N/R
Core :	N/R
BH Geo Phys :	N/R
Geo Chem :	N/R
Water Chem :	N/R
OB Well :	N/R
SWL :	Y
DH Video :	N/R
Input SRC : Unused :	MGS N
Entry Date :	2008-09-10
Update Date :	2020-09-06
Geoc Type :	N/R
GCM Code :	DS2
Geoc SRC :	MGS
Geoc PRG :	CWI
Geoc Entry :	619079.0
Geoc Date :	2016-03-16
Geoc Update EN : Geoc Update Date :	0.0
Received Date :	0 0
SWL Count :	1.0
SWL Date :	1995-03-28
SWL Average Measure :	9.0
SWL Average Elevation :	830.0

Envirosite ID: 47236565 EPA ID: N/R

Map Id: A8 Direction: N Distance: 0.391 mi., 2065 ft. Elevation: 839 ft. Relative: Higher	Site Name : Database(s) :	559218 N/R MN [WELLS - MN] (cont.)	Envirosite ID: 47236565 EPA ID: N/R
WELLS - MN (cont.) BDRK Elevation : OH Top Elevation : OH Bot Elevation : Bot Hole Elevation : Last Date in Agency Lis	st :	0.0 834.0 827.0 827.0 2022-04-20	

Map Id: B9 Direction: WSW Distance: 0.408 mi., 2157 ft. Elevation: 658 ft. Relative: Lower	Site Name :	710311 N/R MN	Envirosite ID: 47344674 EPA ID: N/R
	Database(s) :	[WELLS - MN]	

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation MC : Loc MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter : Case Depth : Grout : Pollut Dst : Pollut Dst : Pollut Dir : Pollut Type : Strat Date : Strat SRC : Strat Geol : Strat Geol : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem :	MW-4 Sealed Monitor Well 69 SEC 5, TWP 50, RNG 13W DCDADD 244D 658.0 L1 G MDH 1381 16.0 16.0 2008-01-14 2.0 6.0 Y 20 W Volatile organic compounds 2008-01-14 2.0 6.0 Y 20 W Volatile organic compounds 2008-09-10 2021-03-24 MGS BB Q 0.0 N/R QNUB QPUU QNUB QPUU QNUB QWTA N/R N/R N/R N/R
Water Chem :	N/R

Map Id: B9 Direction: WSW Distance: 0.408 mi., 2157 ft. Elevation: 658 ft. Relative: Lower

Site Name :	710311 N/R MN
Database(s) :	[WELLS - MN] (cont.)

WELLS - MN (cont.)

OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC : Geoc SRC : Geoc Date : Geoc Date : Geoc Update EN : Geoc Update EN : Geoc Update EN : Geoc Update I : SWL Count : SWL Count : SWL Average Measure : SWL Average Elevation : BDRK Elevation : OH Top Elevation : OH Bot Elevation : Bot Hole Elevation : Bot Hole Elevation : SWL Average Measure : SWL Hole Elevation : DH DE Elevation : DH DE Elevation : DH DE Elevation : SWL Hole Elevation : DH DE Elevation :	N/R Y N/R MGS N 2008-09-10 2021-03-24 WW G6O MDH WM 2185005.0 2009-06-05 0.0 0 2008-01-24 1.0 2008-01-24 1.0 2008-01-16 8.89 649.11 0.0 652.0 642.0 642.0
Last Date in Agency List :	2022-04-20

Map Id: B10 Direction: WSW Distance: 0.410 mi., 2167 ft. Elevation: 659 ft. Relative: Lower Database(s): [WELLS - MN]

WELLS - MN

Well Name :	MW-1
Status :	Sealed
Use :	Monitor Well
County :	69
Section/Township/Range :	SEC 5, TWP 50, RNG 13W
Sub Section :	DCDADA
MGS Quad C :	244D
Elevation :	659.0
Elevation MC :	L1
Loc MC :	G
Loc SRC :	MDH
Data SRC :	1381
Depth Drill :	15.0
Depth Comp :	15.0
Date Drill :	2008-01-10
Case Diameter :	2.0
Case Depth :	5.0
cuse Depth i	5.0

Envirosite ID: 47344674 EPA ID: N/R Map Id: B10 Direction: WSW Distance: 0.410 mi., 2167 ft. Elevation: 659 ft. Relative: Lower

Site Name : 710307 N/R MN Database(s) : [WELLS - MN] (cont.)

Envirosite ID: 47497741 EPA ID: N/R

WELLS - MN (cont.)

Grout : Pollut Dst : Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : Geoc SRC : Geoc PRG : Geoc Date : Geoc Update Date : Geoc Update Date : Geoc Update Date : SWL Count : COUNT : COUN	Y 10 S Volatile organic compounds 2008-09-10 2015-09-22 MGS BB Q 0.0 N/R QIUB QPUU QIUB QPUU QIUB QPUU QIUB QWTA N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Geoc Update Date : Received Date : SWL Count :	2008-01-24 1.0
SWL Date :	2008-01-16
SWL Average Measure :	8.75
SWL Average Elevation :	650.25
BDRK Elevation :	0.0
OH Top Elevation :	654.0
OH Bot Elevation :	644.0
Bot Hole Elevation :	644.0
Last Date in Agency List :	2022-04-20

Map Id: B11 Direction: WSW Distance: 0.419 mi., 2215 ft. Elevation: 658 ft. Relative: Lower

Site Name : 710309 N/R MN

Database(s): [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter : Case Depth : Grout :	MW-3 Sealed Monitor Well 69 SEC 5, TWP 50, RNG 13W DCDADD 244D 657.0 L1 G MDH 1381 33.0 15.0 2008-01-10 2.0 5.0 Y
Pollut Dst :	0
Pollut Dir :	N/R
Pollut Type :	N/R
Strat Date :	2008-09-10
Strat Update : Strat SRC :	2015-09-22 MGS
Strat Geol :	BB
Strat MC :	Q
Depth 2 BDRK :	0.0
First BDRK :	N/R
Last Strat :	QIUB
OH Top Unit :	QPUU
OH Bot Unit :	QIUB
Aquifer :	QWTA
Cuttings :	N/R
Core :	N/R
BH Geo Phys : Geo Chem :	N/R N/R
Water Chem :	N/R
OB Well :	N/R
SWL :	Y
DH Video :	N/R
Input SRC :	MGS
Unused :	Ν
Entry Date :	2008-09-10
Update Date :	2015-09-22
Geoc Type :	WW
GCM Code : Geoc SRC :	G6O MDH
Geoc PRG :	WM
Geoc Entry :	2185005.0
Geoc Date :	2009-06-05
Geoc Update EN :	0.0
Geoc Update Date :	0
Received Date :	2008-01-24
SWL Count :	1.0
SWL Date :	2008-01-16
SWL Average Measure :	9.08
SWL Average Elevation :	647.92

2022

Envirosite ID: 47204184 EPA ID: N/R

Map Id: B11 Direction: WSW Distance: 0.419 mi., 2215 ft. Elevation: 658 ft. Relative: Lower	Site Name : Database(s) :	710309 N/R MN [WELLS - MN] (cont.)	Er	nvirosite ID: 47204184 EPA ID: N/R
WELLS - MN (cont.) BDRK Elevation : OH Top Elevation : OH Bot Elevation : Bot Hole Elevation : Last Date in Agency Li	st :	0.0 652.0 642.0 624.0 2022-04-20		

Map Id: B12 Direction: WSW Distance: 0.422 mi., 2227 ft. Elevation: 657 ft. Relative: Lower	Site Name :	710312 N/R MN	Envirosite ID: 47288651 EPA ID: N/R
	Database(s) :	[WELLS - MN]	

WELLS - MN

BH Geo Phys : N/R Geo Chem : N/R	First BDRK :N/RLast Strat :QIUBOH Top Unit :QPUUOH Bot Unit :QIUB	Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0	Strat Date : 2008-09-10 Strat Update : 2019-12-11		Pollut Dst : 20	Grout : Y		Pollut Dst : Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core :	20 N Volatile organic compounds 2008-09-10 2019-12-11 MGS BB Q 0.0 N/R QIUB QPUU QIUB QWUA QIUB QWTA N/R N/R N/R N/R
Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundsStrat Date :2008-09-10Strat Update :2019-12-11Strat SRC :MGSStrat Geol :BBStrat MC :QDepth 2 BDRK :0.0First BDRK :N/RLast Strat :QIUBOH Top Unit :QPUUOH Bot Unit :QIUB	Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundStrat Date :2008-09-10Strat Update :2019-12-11Strat SRC :MGSStrat Geol :BBStrat MC :Q	Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundStrat Date :2008-09-10Strat Update :2019-12-11	Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Case Depth : 5.0 Grout : Y Pollut Dst : 20	Case Depth : 5.0				
Case Diameter :2.0Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundsStrat Date :2008-09-10Strat Update :2019-12-11Strat SRC :MGSStrat Geol :BBStrat MC :QDepth 2 BDRK :0.0First BDRK :QIUBOH Top Unit :QPUUOH Bot Unit :QIUB	Case Diameter :2.0Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundStrat Date :2008-09-10Strat Update :2019-12-11Strat SRC :MGSStrat Geol :BBStrat MC :Q	Case Diameter :2.0Case Depth :5.0Grout :YPollut Dst :20Pollut Dir :NPollut Type :Volatile organic compoundStrat Date :2008-09-10Strat Update :2019-12-11	Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Case Diameter :2.0Case Depth :5.0	Case Diameter : 2.0			
Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Date Drill : 2008-01-11 Case Diameter : 2.0	Date Drill : 2008-01-11		
Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Depth Comp : 15.0 Date Drill : 2008-01-11		
Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11		
Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat Qolate : BB Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11		
Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dst : 20 Pollut Drir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat Geol : BB Strat MC : Q	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11	Elevation MC :	L1
Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Drir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat Geol : BB Strat MC : Q	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11	•	656.0
Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat Geol : BB Strat MC : 0.0 Pirst BDRK : N/R Last Strat : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11	MGS Quad C :	244D
Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Dett Drill : 2008-01-11		
Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2019-12-11 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : QIUB OH Top Unit : QPUU OH Bot Unit : QIUB	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10 Strat Update : 2019-12-11	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11		
Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q Depth 2 BDRK : 0.0 First BDRK : 0.0 First BDRK : VI Last Strat : QIUB	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2008-09-10	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Grout : Y Pollut Dst : 20	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11		
County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dst : 2008-09-10 Strat Date : 2008-09-10 Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : 0.0 First BDRK : 0.0 First BDRK : QIUB OH Top Unit : QIUB	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Update : 2019-12-11	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11		
Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compounds Strat Date : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : 0.0 Eirst BDRK : N/R Last Strat : QIUB OH Top Unit : QIUB	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dst : 20 Pollut Type : Volatile organic compound Strat Update : 2019-12-11 Strat SRC : MGS Strat Geol : BB Strat MC : Q	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N Pollut Type : Volatile organic compound Strat Date : 2019-12-11	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Depth Comp : 15.0 Date Drill : 2008-01-11 Case Depth : 5.0 Grout : Y Pollut Dst : 20 Pollut Dir : N	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Detrill : 2008-01-11 Case Diameter : 2.0 Grout : Y Pollut Dst : 20	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0 Case Depth : 5.0	Use : Monitor Well County : 69 Section/Township/Range : SEC 5, TWP 50, RNG 13W Sub Section : DCDDAA MGS Quad C : 244D Elevation : 656.0 Elevation MC : L1 Loc MC : G Loc SRC : MDH Data SRC : 1381 Depth Drill : 15.0 Date Drill : 2008-01-11 Case Diameter : 2.0	Use :Monitor WellCounty :69Section/Township/Range :SEC 5, TWP 50, RNG 13WSub Section :DCDDAAMGS Quad C :244DElevation :656.0Elevation MC :L1Loc MC :GLoc SRC :MDHData SRC :1381Depth Drill :15.0Depth Comp :15.0Date Drill :2008-01-11		Sealed

Map Id: B12 Direction: WSW Distance: 0.422 mi., 2227 ft. Elevation: 657 ft. Relative: Lower

Site Name :	710312 N/R MN
Database(s) :	[WELLS - MN] (cont.)

Envirosite ID: 47288651 EPA ID: N/R

WELLS - MN (cont.)

OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC : Geoc PRG : Geoc Date : Geoc Update EN : Geoc Update Date : SWL Average Measure : SWL Average Measure : SWL Average Elevation : BDRK Elevation : OH Top Elevation : Bot Hole Elevation : Bot Hole Elevation : Bot Hole Elevation : DH Top Elevation : Bot Hole Elevation : SWL Average Measure : SWL Average Me	N/R Y N/R MGS N 2008-09-10 2019-12-11 WW G6O MDH WM 2185005.0 2009-06-05 0.0 0 2008-01-24 1.0 2008-01-16 9.16 646.84 0.0 651.0 641.0
Last Date in Agency List :	2022-04-20

Map Id: B13 Direction: WSW Distance: 0.423 mi., 2234 ft. Elevation: 657 ft. Relative: Lower	Site Name :	710310 N/R MN	Envirosite ID: 47449995 EPA ID: N/R
	Database(s) :	[WELLS - MN]	

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp :	MW-3D Sealed Monitor Well 69 SEC 5, TWP 50, RNG 13W DCDADD 244D 657.0 L1 G MDH 1381 33.0 32.0
•	
Depth Comp :	
Date Drill :	2008-01-11
Case Diameter :	2.0
Case Depth :	27.0

Map Id: B13 Direction: WSW Distance: 0.423 mi., 2234 ft. Elevation: 657 ft. Relative: Lower

Site Name : 710310 N/R MN Database(s): [WELLS - MN] (cont.)

WELLS - MN (cont.)

Grout : Pollut Dst : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc Date : Geoc Date : Geoc Update EN : Geoc Update Date : SWL Count : Count : Cut count : SWL count : Cut count : Cut count : Cut count : SWL count : Cut count :	Y 0 N/R Volatile organic compounds 0 2015-09-22 MGS BB Q 0.0 N/R QIUB QIUB QIUB QUB QWTA N/R N/R N/R N/R N/R N/R N/R N/R
Geoc Update Date : Received Date :	0
BDRK Elevation : OH Top Elevation : OH Bot Elevation :	0.0 630.0 625.0
Bot Hole Elevation : Last Date in Agency List :	624.0 2022-04-20

Envirosite ID: 47449995 EPA ID: N/R

2022

Map Id: B14 Direction: WSW Distance: 0.427 mi., 2256 ft. Elevation: 655 ft. Relative: Lower

WELLS - MN

Site Name : 710313 N/R MN Database(s) : [WELLS - MN]

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter : Case Depth :	MW-6 Sealed Monitor Well 69 SEC 5, TWP 50, RNG 13W DCDDAA 244D 652.0 L1 G MDH 1381 14.0 14.0 2008-01-11 2.0 4.0
Grout :	Y
Pollut Dst :	40
Pollut Dir :	N
Pollut Type : Strat Date :	Volatile organic compounds 0
Strat Update :	2015-09-22
Strat SRC :	MGS
Strat Geol :	BB
Strat MC :	Q
Depth 2 BDRK :	0.0
First BDRK :	N/R
Last Strat :	QPUB
OH Top Unit :	QPUB
OH Bot Unit :	QPUB
Aquifer : Cuttings :	QWTA N/R
Core :	N/R
BH Geo Phys :	N/R
Geo Chem :	N/R
Water Chem :	N/R
OB Well :	N/R
SWL :	Y
DH Video :	N/R
Input SRC :	MGS
Unused :	N
Entry Date :	2008-09-10
Update Date :	2015-09-22 WW
Geoc Type : GCM Code :	G6O
Geoc SRC :	MDH
Geoc PRG :	WM
Geoc Entry :	2185005.0
Geoc Date :	2009-06-05
Geoc Update EN :	0.0
Geoc Update Date :	0
Received Date :	2008-01-24
SWL Count :	1.0
SWL Date :	2008-01-16
SWL Average Measure :	4.6
SWL Average Elevation :	647.4

Envirosite ID: 47258994 EPA ID: N/R Map Id: B14 Site Name : 710313 Direction: WSW Distance: 0.427 mi., 2256 ft. N/R Elevation: 655 ft. MN Relative: Lower Database(s): [WELLS - MN] (cont.) WELLS - MN (cont.) BDRK Elevation : 0.0 648.0 OH Top Elevation : OH Bot Elevation : 638.0

> 638.0 2022-04-20

Map Id: B15 Direction: WSW Distance: 0.428 mi., 2260 ft. Elevation: 657 ft.	Site Name :	710308 N/R MN	

Database(s): [WELLS - MN]

MN

Envirosite ID: 47153988 EPA ID: N/R

WELLS - MN

Relative: Lower

Bot Hole Elevation :

Last Date in Agency List :

Envirosite ID: 47258994 EPA ID: N/R Map Id: B15 Direction: WSW Distance: 0.428 mi., 2260 ft. Elevation: 657 ft. Relative: Lower

Site Name :	710308 N/R MN
Database(s) :	[WELLS - MN] (cont.)

Envirosite ID: 47153988 EPA ID: N/R

WELLS - MN (cont.)

OB Well :	N/R
SWL :	Y
DH Video :	N/R
Input SRC :	MGS
Unused :	Ν
Entry Date :	2008-09-10
Update Date :	2015-09-22
Geoc Type :	WW
GCM Code :	G60
Geoc SRC :	MDH
Geoc PRG :	WM
Geoc Entry :	2185005.0
Geoc Date :	2009-06-05
Geoc Update EN :	0.0
Geoc Update Date :	0
Received Date :	2008-01-24
SWL Count :	1.0
SWL Date :	2008-01-16
SWL Average Measure :	7.18
SWL Average Elevation :	648.82
BDRK Elevation :	0.0
OH Top Elevation :	651.0
OH Bot Elevation :	641.0
Bot Hole Elevation :	637.0
Last Date in Agency List :	2022-04-20
	2022 01 20

Map Id: 16 Direction: WSW Distance: 0.793 mi., 4189 ft. Elevation: 697 ft. Relative: Higher	Site Name :	LIVING STONES FELLOWSHIP ASSEMBLY OF GOD Livingstone Church MN5690328 5202 COLORADO ST Duluth DULUTH, MN 55804	Envirosite ID: 3446253 EPA ID: N/R
	Database(s) :	[PWS, PWS ENF]	

PWS

Facility Address :	
PWS ID : PWS Type : PWS Name : Activity Status : Primary Source : Submission Year : Submission Year Quarter : Population Served Count : Service Connections Count : Population Category 2 : Population Category 3 : Population Category 4 :	

5202 Colorado Street, Duluth, MN 55804

MN5690328 Transient non-community system Anchor Point Fredenberg Active Ground water 2021 2021Q4 125 1 <10,000 <=3300 <10K Map Id: 16 Direction: WSW Distance: 0.793 mi., 4189 ft. Elevation: 697 ft. Relative: Higher

Site Name : LIVING STONES FELLOWSHIP ASSEMBLY OF GOD | Livingstone Church | MN5690328 5202 COLORADO ST Duluth | DULUTH, MN 55804 Database(s) : [PWS, PWS ENF] (cont.) Envirosite ID: 3446253 EPA ID: N/R

PWS (cont.)

Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	4
Submission Status Code :	Ŷ
	-
First Reported Date :	1995-12-14
Last Reported Date :	2021-12-02
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	Ν
Is Source Water Protected :	N/R
Primacy Agency :	Minnesota
Primacy Type :	State
Org Name :	Anchor Point Fredenberg
EPA Region :	Region 5
Admin Name :	N/R
	-
Owner Type :	Private
Phone Number :	N/R
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	Ν
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	9999
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	
	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	2020-01-01
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	Annual
Last Date in Agency List :	2022-02-03
PWS ID :	MN5380093
PWS Type :	Transient non-community system
PWS Name :	Anchor Point Two Harbors
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2021
Submission Year Quarter :	202104
Population Served Count :	
	25
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	4
Submission Status Code :	Y

Map Id: 16 Direction: WSW Distance: 0.793 mi., 4189 ft. Elevation: 697 ft. Relative: Higher

Site Name : LIVING STONES FELLOWSHIP ASSEMBLY OF GOD | Livingstone Church | MN5690328 5202 COLORADO ST Duluth | DULUTH, MN 55804 Database(s) : [PWS, PWS ENF] (cont.) Envirosite ID: 3446253 EPA ID: N/R

PWS (cont.)

PWS ENF

Owner Type : Phone Number :

Last Date in Agency List :

ENF	First Reported Date : Last Reported Date : Deactivation Date : GW or SW : Is Grant Eligible : Is Outstanding Performer : Is School or Daycare : Is Source Water Protected : Primacy Agency : Primacy Type : Org Name : EPA Region : Admin Name : Owner Type : Phone Number : Phone Number : Phone Ext Number : Alt Phone Number : Email Address : Fax Number : Is Wholesaler : LT2 Schedule Category : NPM Candidate : CDS ID : DBPR Schedule Category : Outstanding Performer Date : Season Begin Date : Season End Date : Source Water Protection Date : Seasonal Startup System : Reduced Monitoring End Date : Reduced Monitoring End Date : Reduced RTCR Monitoring : Last Date in Agency List :	1995-12-14 2021-12-02 N/R Groundwater Y N/R N N/R Minnesota State Anchor Point Two Harbors Region 5 N/R Private N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
	Facility Address :	5202 Colorado Street, Duluth, MN 55804
Site D	Petails PWS ID : PWS Name : EPA Region : Primacy Agency : PWS Type : Primacy Type : Primary Source : Activity Status : Deactivation Date :	MN5690328 Anchor Point Fredenberg Region 5 Minnesota Transient non-community system State Ground water Active N/R

Private

N/R 2022-03-28 Map Id: 16 Direction: WSW Distance: 0.793 mi., 4189 ft. Elevation: 697 ft. Relative: Higher

Site Name : LIVING STONES FELLOWSHIP ASSEMBLY OF GOD | Livingstone Church | MN5690328 5202 COLORADO ST Duluth | DULUTH, MN 55804 Database(s) : [PWS, PWS ENF] (cont.) Envirosite ID: 3446253 EPA ID: N/R

PWS ENF (cont.)

Violation Details **RTC Enforcement ID :** Violation ID : Submission Year : Violation First Reported Date : Contaminant Name : Rule Family : Rule Group : Rule Name : Violation Type : Is Health Based : Is Major Violation : Severity Indicator Count : Public Notification Tier : Address Line 1 : Address Line 2 : Compliance Status : RTC Date : Enforcement Action Description : Admin Name : Email Address :

> RTC Enforcement ID : Violation ID : Submission Year : Violation First Reported Date : Contaminant Name : Rule Family : Rule Group : Rule Name : Violation Type : Is Health Based : Is Major Violation : Severity Indicator Count : Public Notification Tier : Address Line 1 : Address Line 2 : Compliance Status : RTC Date : **Enforcement Action Description :** Admin Name : Email Address :

106556 10110 2021 2004-11-17 Coliform (TCR) Total Coliform Rules Microbials Total Coliform Rule Maximum Contaminant Level Violation, Monthly (TCR) Y N/R N/R 2 5202 Colorado Street, Duluth, 55804 N/R Returned to Compliance 2004-06-29 State Compliance achieved N/R N/R 272975 33142 2021 2007-02-16 Coliform (TCR) Total Coliform Rules Microbials Total Coliform Rule Maximum Contaminant Level Violation, Monthly (TCR) Υ N/R N/R 2 5202 Colorado Street, Duluth, 55804 N/R Returned to Compliance 2007-01-30 State Compliance achieved N/R N/R

Map Id: 17 Direction: NW Distance: 0.839 mi., 4432 ft. Elevation: 826 ft. Relative: Higher

Site Name : MN5690069 2940 SEVEN BRIDGES ROAD DULUTH, MN 55804 Database(s) : [PWS] Envirosite ID: 3544472 EPA ID: N/R

PWS

Facility Address :

2940 SEVEN BRIDGES ROAD, DULUTH, MN 55804

PWS ID : PWS Type : PWS Yame : Activity Status : Primary Source : Submission Year Quarter : Population Served Count : Service Connections Count : Population Category 2 : Population Category 3 : Population Category 4 : Population Category 5 : Population Category 5 : Population Category 11 : Submission Quarter : Submission Quarter : Submission Status Code : First Reported Date : Last Reported Date : Last Reported Date : Last Reported Date : Is GW or SW : Is Grant Eligible : Is School or Daycare : Is School or Daycare : Is Source Water Protected : Primacy Agency : Primacy Type : Org Name : EPA Region : Admin Name : Owner Type : Phone Number : Phone Ext Number : Email Address : Fax Number : Is Wholesaler : LT2 Schedule Category : NPM Candidate : CDS ID : DBPR Schedule Category : Outstanding Performer Date : Season Begin Date : Season End Date : Source Water Protection Date : Season Eding Performer Date : Season End Date : Source Water Protection Date : Season End Date : Source Water Protection Date : Season End Date : Season Eding Performer Date : Season End Date : Season Startup System : Reduced Monitoring Begin Date : Reduced Monitoring Begin Date : Reduced Monitoring End Date : Pate Pate Pate Pate Pate Pate Pate Pate	MN5690069 Transient non-community system LAKE VIEW WINTER SPORTS INC Inactive Ground water 2021 2021Q4 100 0 <10,000 <=3300 <10K <=500 <=100 4 Y 1981-01-23 1995-12-14 1995-12-01 Groundwater N N/R N/R N/R N/R N/R N/R N/R Region 5 LAKE VIEW WINTER SPORTS INC Private 218-525-9940 N/R N/R N/R N/R N/R N/R N/R N/R N/R N/R
Reduced Monitoring End Date : Reduced RTCR Monitoring :	N/R N/R
Last Date in Agency List :	2022-02-03

Page 150 of 160

Map Id: 18 Direction: NE Distance: 0.858 mi., 4531 ft. Elevation: 823 ft. Relative: Higher

Site Name : 661305 N/R MN

Database(s) : [WELLS - MN]

WELLS - MN

Well Name : Status :	OLSON, WAYNE Active
Use :	Domestic
County :	69
Section/Township/Range :	SEC 33, TWP 51, RNG 13W
Sub Section :	DACBAD
MGS Quad C :	243C
Elevation :	820.0
Elevation MC :	T
Loc MC :	5
Loc SRC :	MGS
Data SRC :	09199
Depth Drill :	405.0
Depth Comp :	405.0
Date Drill :	2001-11-05
Case Diameter :	6.0
Case Depth :	20.3
Grout :	Y
Pollut Dst :	125
Pollut Dir :	NW
Pollut Type :	Septic tank/drain field
Strat Date :	2002-02-25
Strat Update :	2019-11-26
Strat SRC :	MGS
Strat Geol :	ARB
Strat MC :	Q
Depth 2 BDRK :	11.0
First BDRK :	PMBL
Last Strat :	PMUD
OH Top Unit :	PMBL
OH Bot Unit :	PMUD
Aquifer :	PMUD
Cuttings :	N/R
Core :	N/R
BH Geo Phys :	N/R
Geo Chem :	N/R
Water Chem :	N/R
OB Well :	N/R
SWL :	Y
DH Video :	N/R
Input SRC :	MDH
Unused :	N
Entry Date :	2002-02-25
Update Date :	2019-11-26
Geoc Type :	WW
GCM Code :	DS1
Geoc SRC :	MGS CWI
Geoc PRG : Geoc Entry :	619008.0
Geoc Date :	2007-09-26
Geoc Update EN :	0.0
Geoc Update Date :	0
Received Date :	0
SWL Count :	1.0
SWL Date :	2001-11-05
SWL Average Measure :	125.0
SWL Average Elevation :	695.0

Envirosite ID: 47201703 EPA ID: N/R

Map Id: 18 Direction: NE Distance: 0.858 mi., 4531 ft. Elevation: 823 ft. Relative: Higher	Site Name : Database(s) :	661305 N/R MN [WELLS - MN] (cont.)	Envirosite ID: 47201703 EPA ID: N/R
WELLS - MN (cont.) BDRK Elevation : OH Top Elevation : OH Bot Elevation : Bot Hole Elevation : Last Date in Agency Lis	st :	809.0 799.7 415.0 415.0 2022-04-20	

Map ld: 19 Direction: WSW Distance: 0.928 mi., 4901 ft. Elevation: 642 ft.	Site Name :	636600 N/R MN	Envirosite ID: 47234257 EPA ID: N/R
Elevation: 642 ft. Relative: Lower	Database(s) :		

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Depth : Grout : Pollut Dst : Pollut Dst : Pollut Dir : Pollut Dir : Pollut Type : Strat Date : Strat Qdate : Strat SRC : Strat Geol : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem :	NEIMI, GERALD Sealed Monitor Well 69 SEC 8, TWP 50, RNG 13W BDBAAD 244D 642.0 L1 S MGS M0013 31.0 30.5 2000-09-27 6.0 15.5 N 0 N/R N/R 2001-04-26 2019-12-04 MGS ARB Q 16.0 PMUS PMUS PMUS PMUS PMUS PMUS PMUS PMUS
Water Chem :	N/R

Map Id: 19 Direction: WSW Distance: 0.928 mi., 4901 ft. Elevation: 642 ft. Relative: Lower

Site Name :	636600 N/R MN
Database(s) :	[WELLS - MN] (cont.)

Envirosite ID: 47234257 EPA ID: N/R

WELLS - MN (cont.)

OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Update Date : Geoc Type : GCM Code : Geoc SRC : Geoc PRG : Geoc PRG : Geoc Date : Geoc Update EN : Geoc Update EN : Geoc Update Date : SWL Count : SWL Count : SWL Average Measure : SWL Average Elevation : BDRK Elevation : OH Top Elevation : DH Bot Elevation : Bot Hole Elevation : Last Date in Agency List :	N/R Y N/R MDH N 2001-04-26 2019-12-04 N/R DS2 MGS CWI 619079.0 2016-03-16 0.0 0 2000-10-30 1.0 2000-10-30 1.0 2000-09-27 13.6 628.4 626.0 626.5 611.5 611.0 2022-04-20
Last Date in Agency List :	2022-04-20

Map Id: 20 Direction: NNE Distance: 0.952 mi., 5026 ft. Elevation: 954 ft.	Site Name :	636413 N/R MN	Envirosite ID: 47159843 EPA ID: N/R
Relative: Higher	Database(s) :	[WELLS - MN]	

WELLS - MN

Well Name :	JOHNSON, TED
Status :	Active
Use :	Domestic
County :	69
Section/Township/Range :	SEC 33, TWP 51, RNG 13W
Sub Section :	BDDDAC
MGS Quad C :	243C
Elevation :	955.0
Elevation MC :	T
Loc MC :	1
Loc SRC :	MGS
Data SRC :	38026
Depth Drill :	350.0
Depth Comp :	350.0
Date Drill :	1999-11-12
Case Diameter :	6.0
Case Diameter :	6.0
Case Depth :	34.0
0000 2 0p	2

Map Id: 20 Direction: NNE Distance: 0.952 mi., 5026 ft. Elevation: 954 ft. Relative: Higher Site Name : 636413 N/R MN Database(s) : [WELLS - MN] (cont.)

WELLS - MN (cont.)

Grout : Pollut Dst : Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Bot Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well :	Y 50 SW Other 2000-06-22 2019-11-26 MGS ARB Q 33.0 PMBL PMUD PMUD PMUD PMUD PMUD PMUD N/R N/R N/R N/R N/R N/R
SWL : DH Video : Input SRC :	Y N/R MDH
Unused : Entry Date :	N 2000-03-02
Update Date :	2019-11-26
Geoc Type : GCM Code :	WW DS1
Geoc SRC :	MGS
Geoc PRG :	CWI
Geoc Entry :	619008.0
Geoc Date :	2007-09-26
Geoc Update EN :	0.0
Geoc Update Date :	0
Received Date : SWL Count :	0 1.0
SWL Date :	1999-11-16
SWL Average Measure :	31.0
SWL Average Elevation :	924.0
BDRK Elevation :	922.0
OH Top Elevation :	921.0
OH Bot Elevation :	605.0
Bot Hole Elevation :	605.0
Last Date in Agency List :	2022-04-20

Envirosite ID: 47159843 EPA ID: N/R Map Id: 21 Direction: N Distance: 0.999 mi., 5277 ft. Elevation: 899 ft. Relative: Higher

Site Name : 616153 N/R MN

Database(s) : [WELLS - MN]

WELLS - MN

Well Name : Status : Use : County : Section/Township/Range : Sub Section : MGS Quad C : Elevation : Elevation MC : Loc MC : Loc SRC : Data SRC : Depth Drill : Depth Comp : Date Drill : Case Diameter : Case Depth : Grout : Pollut Dst : Pollut Dir : Pollut Dir : Pollut Type : Strat Date : Strat Update : Strat SRC : Strat Geol : Strat MC : Depth 2 BDRK : First BDRK : Last Strat : OH Top Unit : OH Top Unit : OH Top Unit : Aquifer : Cuttings : Core : BH Geo Phys : Geo Chem : Water Chem : OB Well : SWL : DH Video : Input SRC : Unused : Entry Date : Geoc Type : Geoc RG : Geoc CRG : Geoc CRG : Geoc CRG : Geoc Chem : H Geo Phys : Geoc Chem : Core :	JOHNSON, DENNIS D. Active Domestic 69 SEC 33, TWP 51, RNG 13W BDCBDB 243C 910.0 T 1 MGS 69438 225.0 225.0 225.0 225.0 1998-08-22 6.0 21.0 Y 57 S Septic tank/drain field 2001-02-19 2019-11-26 MGS ARB Q 12.0 PMUS PMUD PMUD PMUS PMUD PMUD PMUD PMUD PMUD PMUD PMUD PMUD
Geoc SRC :	MGS
Geoc Entry :	619008.0
Received Date : SWL Count :	0 1.0
SWL Date : SWL Average Measure : SWL Average Elevation :	1998-08-24 27.0 883.0

2022

Envirosite ID: 47501007 EPA ID: N/R

Page 155 of 160

Map Id: 21 Direction: N Distance: 0.999 mi., 5277 ft. Elevation: 899 ft. Relative: Higher

Site Name : 616153 N/R MN Database(s) : [WELLS - MN] (cont.)

WELLS - MN (cont.)

BDRK Elevation :	898.0
OH Top Elevation :	889.0
OH Bot Elevation :	685.0
Bot Hole Elevation :	685.0
Last Date in Agency List :	2022-04-20

Envirosite ID: 47501007 EPA ID: N/R

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: 55804

NUMBER OF SAMPLE SITES: 14

Area:	Average Activity:	<u>% <4 pCi/L:</u>	<u>% 4-20 pCi/L:</u>	<u>% >20 pCi/L:</u>
basement	1.9923 pCi/L	100%	0%	0%
first floor	7.2 pCi/L	0%	100%	0%

FEDERAL EPA RADON ZONE FOR ST. LOUIS COUNTY: Zone = 2

Note: Zone 1 indoor average level > 4 pCl/L

: Zone 2 indoor average level > = 2 pCl/L and <= 4 pCl/L

: Zone 3 indoor average < 2 pCl/L

HIST PWS ENF

Historical Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS

National Water Information Systems United States Geological Society (703) 648-5953 Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS

Public Water Supply Environmental Protection Agency (800) 426-4791 Safe drinking water information Systems

PWS ENF

Public Water Supply locations with Enforcement Violations Environmental Protection Agency (800) 426-4791 Safe drinking water information Systems with enforcememnt violations

WELLS - MN Water Well Locations Minnesota Geological Survey Water Well Locations

FLOOD Q3 Flood data Environmental Protection Agency (202) 566-1667 Q3 Flood Data

HYDROLOGIC UNIT Hydrologic Unit Maps USGS

The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, subregions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI National Wetland Inventory U.S. Fish and Wildlife Service (703) 358-2171 Wetland Inventory for the United States

SSURGO

Detailed Soil Data Map Natural Resources Conservation Service: U.S. Department of Agriculture (202) 690-4985 Detailed Soil Data Map

STATSGO & MUI General Soil Data Map Natural Resources Conservation Service: U.S. Department of Agriculture (202) 690-4985 General Soil Data Map

USGS GEOLOGIC AGE USGS Digital Data Series DDS Natural Resources Conservation Service: U.S. Department of Agriculture (202) 690-4985 USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

RADON National Radon Database U.S. Environmental Protection Agency 215-814-2469 A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

RADON EPA RADON EPA U.S. Environmental Protection Agency 215-814-2469 EPA list of Radon zones

AIRPORT FACILITIES Airport landing facilities Federal Aviation Administration (866) 835-5322 Airport landing facilities

BASINS Better Assessment Science Integrating point & Non-point Sources U.S. Environmental Protection Agency 855-246-3642 Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE Obstacles of interest to aviation users Federal Aviation Administration 855-379-6518 The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region. EPICENTERS National Geographical Data Center National Geographical Data Center 303-497-6826 List of recent and historic earthquakes and information.

FLOOD DFIRM

National Flood Hazard Layer Database

Federal Emergency Management Agency

The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMAs Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.



Appendix D

MPCA Files

		Hazardous W					Office Use Core/Active CD
location address	 MND9856 Duluth city 1860 Lester Duluth, M 	y of - Lester Golf er River Rd	Par	Check box and complete Less than 10 Out of Busin t 1 - General Info) gal (1 ness as	00 lbs)/year	FP/MFO [*] SIC Code Tax ID
mailing address loc	 5. 411 W 1st Duluth, MI 6. 79 7. Chuck Faeg 	of - Lester Golf St Ste 313 N 55802-1104- gre 8. 218/723-33) \ 2. 3. 4.	Generator ID# (If you updated the general Company Name Location Addre (If you updated the locate Location County Mailing Address	SS ion address, y	aplete Part 1a on back.) complete Part 1b on back.)	
Par	9. Minr	ize: Generation, VSQG nesota or Federal Tax ID#: 416005105		Business Type and complete Part 1 c on to to the left (line 6) is incor Contact Person (Contact person must sign	back ONLY (rrect or missi	ng.	"
INST the sh if you	RUCTIONS: Co naded area for eac a are a Very Smal	mplete one form for each location. F h waste produced during 2000. Put a ll Quantity Generator, add the wastes Management Plan Short Form for eac	ill out line through v to the list afte	er the last preprinted in	iced. For v tem. If yo	u are a Large or Small	
Inve		Name of Hazardous W	aste	Amount Previously	Mgmt Method	2000 Amount Write in the amount and check gallons or	bs. Igmt ethod

tory #		Name of Hazardous Waste	Previously Reported	Mgmt Method	Write in the amount and check gallons or pounds at right.	Gal.	Lbs.	Mgmt Method
	Wastes pr	eviously reported on 1999 report:						
001	-05	PARTS WASHER SOLVENTILLE	CM) 18.G	нн				
	Add new	or additional wastes below. Cross out w	astes no longer prod	uced.				
с 		* nowasi	Le RECEIPE	fe.	Ted in	Č,	rege a	TC)
						Ja T	1	0]
Complet	te: Sign in Port	3; Copy for your records; and Return by I	l Due Date: Fohr	l	2001		FP	→
PQ 0063				uui y 5,	AUVI			

General Information Explanations

Complete this section only if you have made changes to Part 1.

Part 1a: Changes to line 1, Generator ID#

Please indicate why the generator ID# was corrected:

Duplicate ID#s for the same site (*Be sure to verify that location addresses are the same*)

EPA ID# was obtained (write EPA ID# here.) ____

Moved/Changed locations (Complete 'Changes to line 3' below.)

No ID# on front of form _____

] Other (*explain):* _

Part 3 – Read and Sign CERTIFICATION Below

Part 1b: Changes to line 3, Location Address

Please indicate why the location address was corrected:

Moved waste generating activities to another location

Streets and/or street numbers changed by 911 (Emergency) System Property incorporated into city limits and street was renamed

Incorrect address; never at site address listed on front

Not a change in location; just a clarification of the address on the front

Other (explain)

Part 1c: Business Type Description. If your SIC Code (Business Type) is not preprinted on line 6, please provide a brief explanation of your business or the services you provide and staff will assign a SIC Code that describes the type of business you are.

Check a box below if applicable. Keep a copy of your completed license application for at least 3 years. Mail the original, completed application to the MPCA at the address below.

My business produces less than 10 gallons of waste per year.

] My business does not generate a hazardous waste at the location address on the front of this form.

My business no longer operates at the location address listed on the front.

Certification:

I certify under penalty of law that I have personally examined and am familiar with the information contained in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Church Signature

Name (please print)

1-29-01

Date

You Can Request Additional Information... visit our Web site at www.pca.state.mn.us/waste/pubs/business.html

Please send me more information on the Special Waste Pilot Project(#2.22).

Please send me more information on VSQG Collection Sites (#2.51).

Please send me a listing of the fact sheets available on complying with the Hazardous Waste Rules (#0.00)

Pollution Prevention can save your business time and money. Non-regulatory programs can be contacted at the numbers below to learn more about the Pollution Prevention opportunities available to you. If you would like to be contacted by the Minnesota Technical Assistance Program (612/624-1300) and/or Minnesota Technologies Inc. (612/373-2900) please check the box at left.

Return this application by February 5, 2001 to:

Minnesota Pollution Control Agency, Metro District/Major Facilities 520 Lafayette Road N, St. Paul, Minnesota 55155-4194

(to report hazardous waste	Aste License Application generated last calendar year, as required by law) PM FP NAICS Code
Part 1- General Information	CORRECTIONS ONLY
Generator ID #	1. Generator ID#
1. MND985692557	(If you updated the generator ID#, complete Part 1a on last page of this form.) 2. Contact Person
Mailing Address	(Contact person must sign in Part 3 on last page of this form.)
2. Chuck Faegre	3. Company Name Lester Park Colt Caurse
3OF_LESTER GOLF	4. Mailing Address 1860 Lester River Rd
4. 4825 MIKE COLALILLO DR	Duluth the 55804
DULUTH, MN 55807	5. Location Address Same,
Location Address	
5 1860 Lester River Rd	(If you updated the location Address, complete Part 1a on last page of this form.) 6. Location County
Duluth, MN 55804-3030	7. Telephone Number $(\partial(\delta) 525 - 0 \delta 2 \delta)$
6. St. Louis County	8. E-mail Address Juderista aol. com
7. 218/336-8700 ext.3240	9. Tax ID: Review and correct if necessary
8.	
9. Fed. Tax ID: 416005105 MN Tax ID: 8021096	10. Business Type Description Check the box at the right and complete part 1b on the last page of this form if your NAICS and/or SIC code
10. Business Type Description:	is not preprinted in box 9 at the left. See last page for complete instructions.
NAICS code:	Check box and complete parts 2 and 3 if applicable.
 For all generators, if you did not generate hazardous waste this year but might next year Mongenerator Size: Generation, Other 	 If you generated <= 100 pounds/10 gallons of waste this year, but would like an application form next year. If you do not check this box, you will recieve an application form every 3 years. You must still enter your waste information below. Out of Business as of: (date)
Part 2 - Waste Stream Information for 2010	* Note: You must report the amount you generated in the last calendar year even if it's zero.

ź

INSTRUCTIONS: You must complete one form for each location. Record the amount for each waste generated during 2010. Put a line through wastes no longer generated. For wastes not preprinted below, add the wastes to the list after the last preprinted item. **Reminder:** If you generated parts washer solvent that was hazardous, you **MUST** report it, even if you recycled it on-site, mixed it with used oil, or had your parts washer sericed under contract.

See Application Instructions for details. Return form by August 01, 2011 . Please report: P = Pounds, G = Gallons, K = Kilograms

Inventory #	Waste Code (2- or 4-digit)	Name of Hazardous Waste	Amount Previously Reported		2010 Amount Write in the amount and indicate pounds, gallons, or kilograms at the right P, G, or Mgmt Method		
No wastes reported prior to 2010.							

DECEIVE Nov 09 2011 Βγ.....

General Information Explanations: Complete this section only if you have made changes to Part 1.

Part 1a: Changes to line 5, Location Address	
Please indicate why the location address was corrected:	
Moved waste generating activities to another location. You must con the new location, if you have not already done so, and submit the complete will be issued for the new location. The "Notification of Regulated Waste A www.pca.state.mn.us/publications/w-hw7-09.pdf. If you moved locations y "Notification of Regulated Waste Activity Form" to deactivate your EPA ID	d form with your completed License Application; a new ID # ctivity Form" is available on-line at ou will also have to complete the
Streets and/or street numbers changed by 911 (Emergency) System.	
Property incorporated into city limits and street was renamed.	And a state of the second second the
Incorrect address; never at site address listed on front.	
Not a change in location; just a clarification of the address on the front.	

Part 1b: Business Type Description. Find your NAICS code by going to www.census.gov/epcd/www/naics.html.

If you do not have access to the internet and your SIC code is not preprinted on the front page of the application, please provide a brief explanation of your business or the services you provide and staff will assign an appropriate NAICS code.

Part 3 - Read and Sign Certification Below.

Check a box below if applicable. Keep a copy of your completed license application for at least 3 years. Mail the original, completed application to the MPCA at the address below.

My business does not generate a hazardous waste at the location address on the front of this form.

□ My business no longer operates at the location address on the front, and did not generate more than 10 gallons of waste during 2010.

Certification			
I certify under penalty of law that I have p	personally examined and am familiar with t	he information contained in this ar	nd all attached documents,
and that based on my inquiry of those in	dividuals immediately responsible for obtain	aining the information, I believe the	at the submitted information
is true, accurate and complete. I am awa	re that there are significant penalties for s	ubmitting false information, includi	ng the possibility of fine
and imprisonment.	-10.		1 /
And Cust	Jud Crist	11/	7//1
Signature	Name(please print)) Di	ate / /

You Can Find Additional Information... by visiting our web site at www.pca.state.mn.us/waste/pubs/business.html for lots of information on hazardous waste rules and regulations.

Return this application by August 01, 2011 to:

Minnesota Pollution Control Agency, HW License Application

520 Lafayette Road N., St. Paul, Minnesota 55155-4194



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us



October 18, 2011

Dear Minnesota Business:

The Minnesota Pollution Control Agency (MPCA) sent you a Hazardous Waste License Application that is now past due. As of the date of this letter we have not received your completed application.

We realize that some of the businesses that have received this mailing may not be subject to regulation and we would like to correct our records if this is the case. <u>Even if you are no longer producing hazardous waste or</u> <u>are otherwise not regulated</u>, we need to hear from you. If one of the following situations applies to you, please check the appropriate box and return this letter (AND your completed license application) to the address below so that we can update our files.

Park ourse Company Name: Company's EPA ID Number:

My business is no longer operating at the location printed above as of: (date)

A new business has moved into this location

My business is no longer producing/has never produced a hazardous waste at this location

My business has moved to a new location and is reporting under ID#_____

My business has more than one ID# for the same location and has already reported under ID#:

Otherwise not regulated (please describe):

None of the above applies. Complete and return the enclosed license application immediately to: Minnesota Pollution Control Agency, HW License Application, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194

If your response is not received within 10 days of the date of this letter, you will be subject to formal enforcement action, which may include the possibility of fines,

Please return this form AND complete the enclosed license application (even if you did not generate any wasteindicate that on the license application). If you need help completing the license application or have additional questions, MPCA staff can help you at 651-296-2412 (toll free at: 1-800-677-4169) between 8:00 a.m. and 4:30 p.m. Monday through Friday. Thank you for your immediate attention to this matter.

Sincerely,

Kathlun A. Hedde

Kathy Gedde Hazardous Waste Licensing Coordinator Land & Water Quality Permit Section Industrial Division

川ECEIVE NOV 09 2011

-

.

.

No.	MPCA staff	Date	Time	Facility Name	GPS File Name	Latitude	Longitude	Site ID#	Where w	as sample taken?
1	st louis	8/21	1:01	LESTER Gol Course	X082118A	N46 50 52.16	W92°00'19.90	2536	Next to	AST st luis
2	St. Louis	8/21	2:15	UNIVERSITY FOODA-Fuel	X082119 A	N46°49'1186	W92'04'42.52	2729	10 UST	St. Cois
3	st. Long	8/21	<u>ک</u> ربر	where our spun stude	M X082119B	N46°49'09.75	W92°06 21.42	6815	S. End of	BULLDING
4	st. Louis	6/27	12:00	look Country StopE	X082717 A	N47°50'42.82	W92°41'19.60	6798	N. Sise	of Burlainb
5	St. Unis	8/27	12:15	Cook Country Sope Evenos or Coch	X082717B	N47°9 47.87	W92°41'34.70	10264	NEXT 7	B USTS
6	_			MW-8 (A)	X032714 A					
7	· · · · · · · · · · · · · · · · · · ·		1	MW-((B)	X087114B			 		
8				MW-1B (1)	X082714C	:_				
9	······································						·····			
10										<u> </u>
11			<u> </u>							
12										
13										:
14								-		
15										
16			-			<u> </u>			<u> </u>	
17				· · ·						
18		 		· · · ·					<u> </u>	
19			_							
20	· · · · · · · · · · · · · · · · · · ·							1		
	·									1 Br St Ja

GPS GEOEXPLORER - DATA COLLECTION DIRECTIONS

Field Directions for collecting GPS locations:

1. Plug in the GPS unit to the battery using the cord found in the yellow bag.

2. To turn on machine, push black button at bottom center.

3. Position the unit where you want to collect the GPS location. Use the directional arrows to move the blinking cursor to the different menu items. Under the Main Menu, select *Position* (item #2) by pressing the center diamond shaped button.

4. Write down the latitude and longitude on your data collection form when it says "GPS POSITION" (note if it says "OLD POSITION", wait until an updated "GPS POSITION" appears on the screen), then press escape (ESC). Escape brings you back to the menu selections.

5. Toggle over to *Data Capture* (#1), then press enter (diamond shaped button).

6. Toggle to *Open Rover File*, position the unit where you want to collect the gps location, then push enter. This starts the data collection for this location. In the upper right hand corner you will see the number of gps locational readings that are being recorded. When the number reaches 100, you have enough data.

7. Make sure you've recorded the file name (for example H051315A), then after 100 points have been recorded, press enter on *Closed File*. If you don't close the file, the unit will continue to collect locational data from wherever you take it, and will generate <u>bogus</u> data.

8. When asked if you want to close file, toggle to *Yes*, then press enter. You've finished recording your GPS location.

9. To turn the unit off, hold the button located at the bottom center down for 5 seconds (the display on the unit will show the count down and then turn off)

* If you are not able to get a reading and are standing near a building, move away from it.

- * Do not delete any information, until after it's down loaded.
- * Do not change any of the system defaults, including , including the clock on the unit.

* Keep the unit plugged in to its main battery, meaning don't remove the lithium battery pack from the unit or you'll lose memory of any stored locations. If the battery pack cable becomes unplugged, don't worry the lithium batteries in the unit should hold the memory intact for a few minutes, if they have a charge. Sheet1

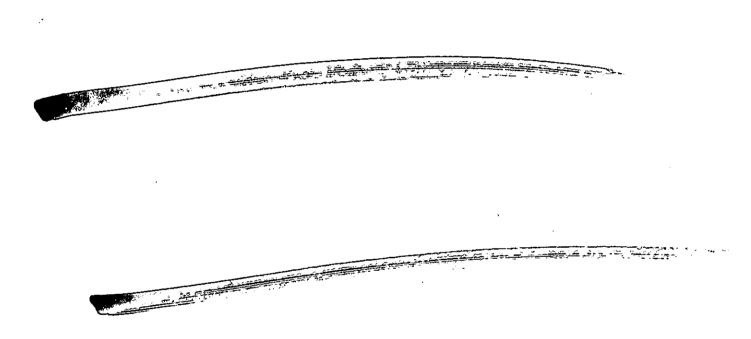
SSF	X082717A	106 47 50 52.3	2.88149 092 41 01.	4.45804	364.3795	12.8356
SSF	X082717B	152 47 50 57.2	6.33647 092 41 15.	12.36842	364.8183	22.64717



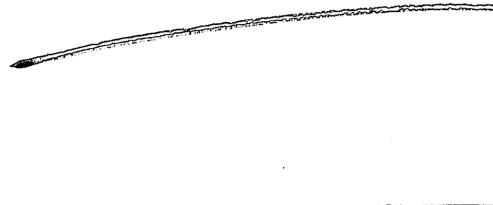


Sheet1

8/27/98	17:03:54
8/27/98	17:16:24



SSF	X082118A	108	46 51 01.6	15.23505	092 00 01.	17.06713	266.5277	41.16777
SSF	X082119A	109	46 49 21.6	8.09074	092 04 24.	5.19008	273.0552	21.08716
SSF	X082119B	137	46 49 19.3	8.68546	092 06 03.	5.71139	364.777	17 10907



وتكويكي ويوجيهم

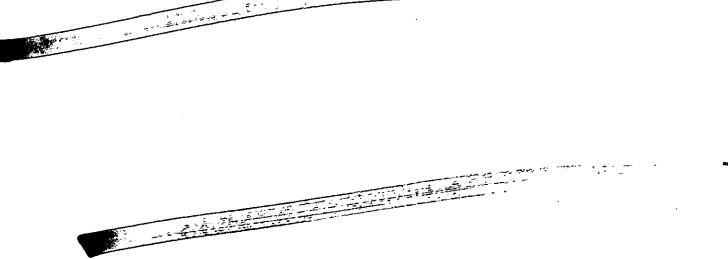
-

ł

Note of the second second

8/21/98	18:05:48
8/21/98	19:14:33
8/21/98	19:26:20

i



ęrt.

-

÷

tss073 MPCA Leaksite Rømarks Screen Leak ID: 2536 ----+ 10/14/91 TMW Rec'd SCAP & PETAPP reports. 1/11/95 SJL: Site transferred to JAJ. 0909/97: Called Bob Maslowski at RSI, he has more intrusive work to do. I recommended he apply this site to our policy as a LSI, and send in the report. However, only if he could draw conclusions recommendations. (JAJ) He said he planned on submitting all of the Duluth sites by 12/30/97. 6/29/98 - JRS: I reviewed the RI report prepared by RSI dated January 28,1998. RSI is recommending closure for the site. I concur with their recommendations. Since 1995 only one well, MW-2 has been hot and overall has exhibit ed a nice decreasing trend (despite the inconclusive biodeg data). The dowgradient sample points have also been clean. There are no receptors within 500 feet and the area is serviced by municipal water.

Rpt Trkng(F11) Restore(F12) Save(F10) Quit(PF3) >

ነልምድ	STAFF		PR ECT NAME: Ofter PK PRECT NUMBER: 253	0
ALE	1	CONTACTED	ACTIVITY (phone number, letter, meeting, etc.)	
-18-91	667	Tim Music	& alles TM; asked in he was shored	6
			by alles TM; asked if he was phoned Bot Troolin the da the release was discovered. He said yes.	7
			discovered. He said us.	
	•			
			·	
		··		
	· .			•
			·	
			······································	
				,
			·	.
			PCA04-139	5

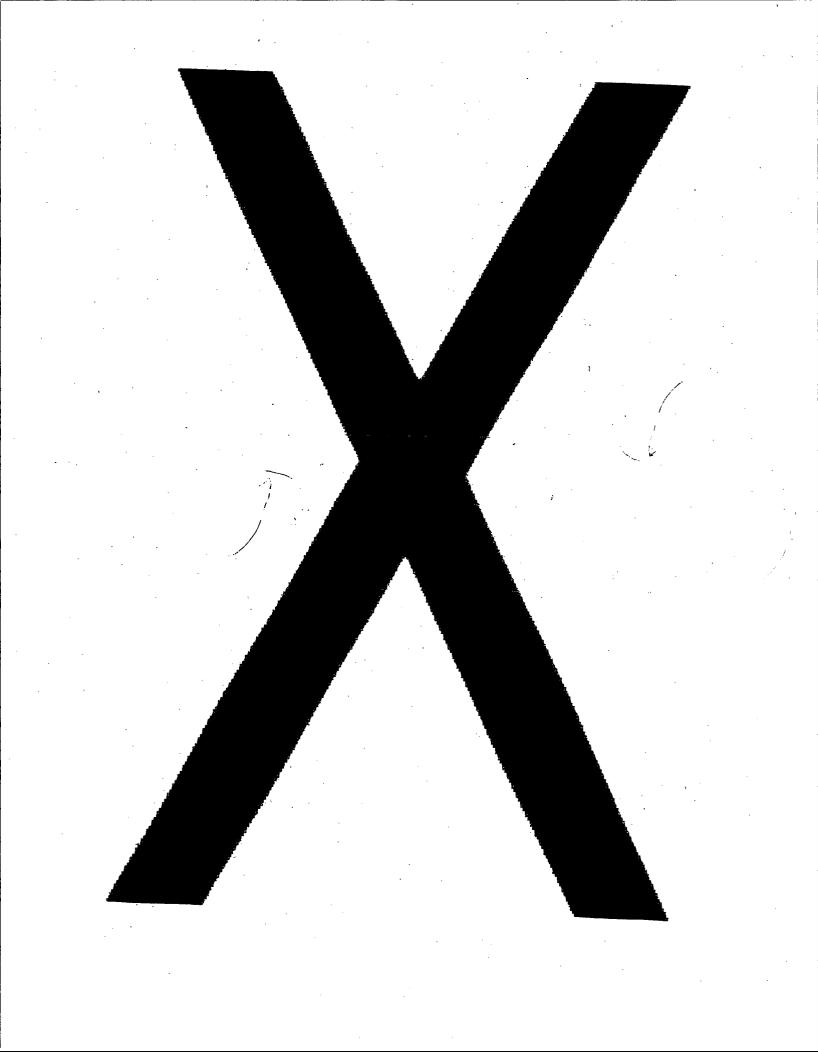
-| :1

★ # 2536	662					
	TION CONTROL AGLACY					
	C RELEASE REPORT Date/Time Occurred:					
Date/Time Reported: 5/16 1:28	Date/Time Discovered: 4/24/90					
LEAK #	USTIS #					
CALLER Name: Jack Granquist	SITE Lester Park Golf Conce Name: 1860 Lester River Rd					
Phone: (715) 392-7114 Relationship to site:	Street: City: DANK Zip: 55804					
Twin Ports Tetting	County: Region:					
SITE OPERATOR	TANK OWNER / OPERATOR					
Name: Street:	Name: City of Rivita Street: City Hall					
City: Zip: Contact Person:						
Phone:	Contact Person: Bob Troolin (Rist My+. Shec) Phone: 155556 (218) 723-3291					
SITUATION Material released/amount:						
Water + GAS						
Source of release:						
Release discovery:						
UST Removal						
TANK INFORMATION						
$\begin{array}{c c} \text{Contents} & \text{Size} & \text{Age} & \text{Remov} \\ \hline $						
<u>6AS 350 MX >15 4/2</u>	<u>4</u> <u>1701c</u>					
State or Federal						
Notification prior to removal: MPCA, Fire Marshal, Excavation Cont	cractor, Consultant present:					
Anderson Sand t	Gravel & Demolition Twik Polts					
SOIL Contaminated soil: $y^{e^{j}}$	· · · · · · · · · · · · · · · · · · ·					
Contaminated soil excavated: 400 y	J I					
Vapor readings: May 190 ffm HAU						
Soil samples: yes						
Borings: No						
soil type: Sandy /Silty / Clay / Till						
Stockpiled properly: Disposal arranged: Was it a total excavation: NO but most awilable , water Infact						
Was it a total excavation: NO, but most available, water Infact						

=12/89 **__**

WATER Groundwater in excavation:	yes
Free product present: Shan	high HAN Read.
Groundwater: water Safe.	· · · · · · · · · · · · · · · · · · ·
City water: no	
Wells private/municipal: yes	, Decl in whys away irrightion 200-500' dep
Surface water: Ponds 100 yds gway	
VAPOR Sewers: NO	
Buildings:	· · ·
SITE INFORMATION Description of the area: On golf (wish	
Previous release: \cap^0 Other possible sources: $\cap 0$	
INSTRUCTIONS GIVEN Hire consultant Submit report Staff will call Contact staff	CONTACTS Local Fire/Police Local Officials Regional Staff Other
INFORMATION SENT	
CONCLUSIONS TANK Renoval, Material affered	to be water, but had high Flash found.
There was a shen on the	nuter, and high HNU Readings at
the water table. Most	likely a water infact. He did get a
Water Sanph.	
	PCA04-1397
STAFF	SUPERVISOR PRIORITY DATE

TANKS AND SPILLS SECTION 1/90 JSTIS SPILLS REPORT LEAK 25360 Date/time occurred Report taken by: Date/time of report: Date/time discovered: CALLER name: Path Sranquist MRUR Palm phone: 715-393-7119 LOCATION street: 1860 Lester River Rd. city, zip: Duluth relationship to site: Twin Ports 7. county: St. Sound 55804 MATERIAL RELEASED/AMOUNT site owner/responsible party name: City of Pulut street: Courthouse SITUATION (HOW/WHY) munor spill city, zip: contact person: Bob Trophen 3-5 gal of fact phone: 723-3291 proviting tank INSTRUCTIONS GIVEN (circle) hire consultant Excurted Total submit report staff will call contact staff 300 yds exerted. Taken to site & being AREAS AFFECTED Taken to site & being surface water at 9' - center intersected groundwater intersected ground to soil soil wells to be then spread. other CONTACTS ACTIVITIES TO DATE Local Fire/Police Emergency Declared? Y N vapor Funding: Local Officials water other Emergency Services_ RP State Work Order # MPCA Region_ MDA MDOT Clean up (specify): Other Disposal: Date Case Closed: PCA04-1398





Minnesota Pollution Control Agency

July 8, 1998

Mr. Chuck Faegre City of Duluth 313 City Hall Duluth, Minnesota 55802

RE: Petroleum Tank Release Site File Closure Site: Lester Park Golf Course, 1860 Lester River Road, Duluth Site ID#: LEAK00002536

Dear Mr. Faegre:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Tanks and Emergency Response Section (TERS) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the TERS staff has closed the release site file.

Closure of the file means that the TERS staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the TERS staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information or changing regulatory requirements make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (Supp. 1997) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn. Stat. ch. 115B (1996), the Minnesota Superfund Law.

The monitoring wells for this site should be abandoned in accordance with the Minnesota Department of Health Well Code, Chapter 4725. If you choose to keep the monitoring wells, the Minnesota Department of Health will continue to assess a maintenance fee for each well.

Mr. Chuck Faegre Page 2 July 8, 1998

Because you performed the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 612/297-1119 or 612/297-4203.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the TERS File Request Program at 612/297-8499. The MPCA fact sheet #3.35 *Leak/Spill and Underground Storage Tank File Request Form* (April 1997) must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please call me at 612/297-8607.

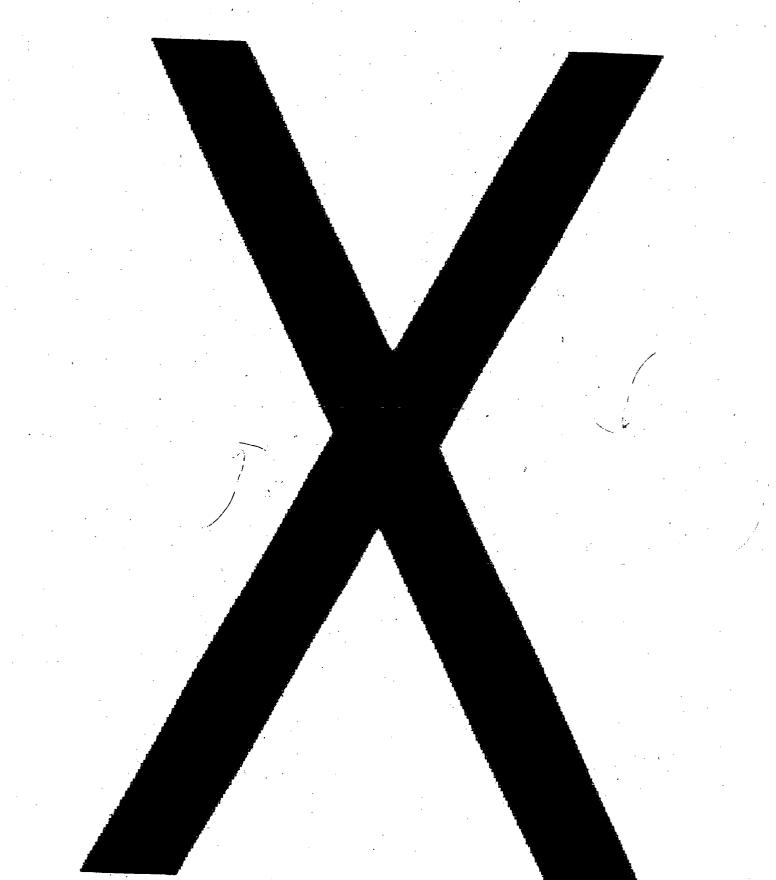
Sincerely,

war Hersch

James Joslyn Project Manager Cleanup Unit II Tanks and Emergency Response Section

JAJ:lh

cc: Jeffrey Cox, City Clerk, Duluth Duane Flynn, Fire Chief, Duluth Ted Troolin, St. Louis County Solid Waste Officer Guy Partch, Remediation Service Inc., Duluth Minnesota Department of Commerce, Petrofund Staff y



.

· •



Minnesota Pollution Control Agency

ner Menter Managana di Santa Santa

May 31, 1994

Mr. Monte Ollenburger Director, Administrative Services City of Duluth 200 City Hall Duluth, Minnesota 55802-1195

M-2.536

RE: Investigation Schedule for Open Tank Leak Files for City of Duluth Sites

Dear Mr. Ollenburger:

Thank you for your letter dated May 19, 1994, with the attached schedule for Remedial Investigations at city of Duluth tank leaksites. We appreciate that the schedule for these sites has now been escalated.

Sincerely /

Steven J. Leppälä Regional Specialist

cc: Les Conway, Earth Burners, Inc. Bob Troolin, City of Duluth

PCA04-1622

.

Duluth Government Center, Suite 704; 320 West Second St.; Duluth, Minnesota 55802; (218) 723-4660, FAX (218) 723-4727 Central Office: St. Paul Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester

Telephone Device for the Deaf (TDD): (800) 627-3529

Equal Opportunity Employer • Printed on recycled paper containing at least 10% fibers from paper recycled by consumers



CITY OF ULUTH

DEPARTMENT OF ADMINISTRATIVE SERVICES 200 City Hall

Duluth, Minnesota 55802-1195 D.U.L.U.T.H 218-723-3700 FAX 218-723-3400

May 19, 1994

Steven Leppala, Regional Specialist Minnesota Pollution Control Agency 320 West Second Street Suite 704 Duluth, MN 55802

Re: MNPCA Letter Dated May 9, 1994

Dear Mr. Leppala,

This letter is in response to your letter dated May 9, 1994. I would like to briefly address the tone of your letter. I believe comments threatening a reduction in Petrofund reimbursements due to a "lack of cooperation" is unwarranted given the City of Duluth's record over the last five years . In that time the City of Duluth has:

- Removed 70 underground storage tanks from 36 sites.
- Spent over \$750,000.
- Cleaned up contamination at 10 sites.
- Partially cleaned up an additional 10 sites.
- In 1993 removed 10 underground storage tanks and cleaned up 5 sites.
- In 1994 (as of May 13, 1994) removed 10 underground storage tanks and cleaned up 2 sites.

The City of Duluth initiated this plan based on the best interest to the environment and in cooperation with the MPCA. The City of Duluth removed the high potential risks to the environment first. We estimate the remaining work to cost approximately \$150,000. This means the City of Duluth is 100% complete on tank removal and 80% complete on remedial work. I find these numbers and production very difficult to label as "lack of cooperation".

In answer to your demand for a work plan for the remaining sites, I have attached a schedule for your review. Please contact the City's Loss Control Officer (Bob Troolin, (218)723-3291) if you require additional information.

Sincerely,

allenburg

Monte Ollenburger, Director Administrative Services

MO/pk

- Enc. MNPCA letter dated May 9, 1994 Earth Burners letter for remedial planning
- cc: (1) Wayne Golly, Regional Director **MNPCA** 320 West Second Street Suite 704 Duluth, MN 55802
 - (2)Bob Troolin, City of Duluth

DULUTH

OULUTH, MN.

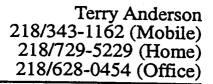
EARTH BURNEI, INC. P.O. Box 16083 Duluth, Minnesota 55816-6083

May 19, 1994

٢.

• /••

Mr. Bob Troolin City of Duluth 313 City Hall Duluth, MN 55802



MAY 23 1994 MPCA - DULUTH DULUTH, MAN

RE: Open Tank Leak Sites Duluth, Minnesota

Pursuant to your request, Earth Burners, Inc. (EBI), has developed a preliminary schedule to address fifteen (15) open tank leak sites. Thirteen of the sites are referenced in a letter dated May 9,1994, from Steve Leppala of the MPCA. Two (2) additional sites are included:

- 14. Far West Tool House #2400
- 15. Lester Park Golf Course #2536

In accordance with our discussions, EBI is providing you with the following scope of services:

- 1. Review existing documentation for each site that includes: excavation reports, analytical chemistry results, notification forms, other relevant information included in your files.
- 2. Develop a work plan for each site that should satisfy the MPCA requirements for a remedial investigation.
- 3. Develop a preliminary cost estimate for each site to address activities through remedial investigation completion and report development.
- 4. Provide a tentative schedule for each site which includes activities from work plan development through report development and submittal.

Petroleum Contaminated Soil Specialists • We Burn The Soil Clean (Meets all Minnesota Regulations) • We Remove Petroleum Tanks We would like to begin file review as soon as possible. If it is agreeable with you, we can begin this work at 8AM on Friday, May 20, 1994.

We trust this provides you with necessary information you require at this time. If you have any questions, please contact us.

Sincerely,

er Les Conway, P.E.

Consulting Engineer

PRELIMINARY SCHEDULE FOR REMEDIAL INVESTIGATIONS CITY OF DULUTH

LEAK #	WORKPLAN/ PROJ. REV.	PROJ. COOR\ MANAGM.	FIELD ACT.\ INVEST.	ANA. CHEM REV./SAMP	REPORT DEV.	EST COMPLETION
1005	5/30	6/10	6/24	7/22	9/23	10/14
2943	5/30	6/10	6/24	7/22	9/23	10/14
2619	5/30	6/10	7/1	7/29	9/30	10/21
3084	5/30	6/10	7/1	7/29	9/30	10/21
4681	5/30	6/10	6/24	7/22	9/23	10/14
4694	5/30	6/10	6/24	7/22	9/23	10/14
4708	5/30	6/10	7/15	8/12	10/14	10/28
5810	5/30	6/10	7/15	8/12	10/14	10/28
5857	5/30	6/10	7/1	7/29	9/30	10/21
5850	5/30	6/10	7/15	8/12	10/14	10/28
5846	5/30	6/10	7/15	8/12	10/14	10/28
5847	5/30	6/10	7/15	8/12	10/14	10/28
6303	5/30	6/10	7/1	7/29	9/30	10/21
2400	5/30	6/10	7/22	8/26	10/14	11/4
2536	5/30	6/10	7/22	8/26	10/14	11/4

ACTIVITY DESCRIPTIONS

- Workplan/Proj. Rev. these activities include; project file review, site map development, cost estimates.
- Proj. Coor/Mangm. after workplan and cost estimate review by client, necessary permits and agreements will be obtained, also includes site contacts, utilities clearance and scheduling
- Field Act./Invest. field activities includes; soil borings, monitoring wells, risk assessments, sampling, data collection, etc.
- Ana Chem Rev./Samp. if additional sampling is required it will be performed, other activities include data reduction and review, mapping, hydrogeologic review.

Report Dev. - review and report preparation.

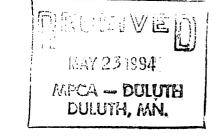
Est Completion - final report review with client.



Minnesota Pollution Control Agency

May 9, 1994

Mr. Monte Ollenburger Director, Administrative Services City of Duluth 313 City Hall Duluth, Minnesota 55802



RE: Investigation Schedule for Open Tank Leak Files for City of Duluth Sites

Dear Mr. Ollenburger:

Following is a list of city of Duluth tank leaksites that according to the Minnesota Pollution Control Agency (MPCA) Leaksite Database are still listed as open sites:

Name	Address	Leak #	Reported	Project Manager
City of Duluth	24th Ave. W.	1005	3/14/89	Steven Leppälä
Park's T.H.	101 W. 42nd Ave.	2943	4/12/90	Steven Leppälli
Street Maint.	103 E. Central Ent.	2619	4/27/90	Steven Leppälä
Police Garage	411 W. 1st St.	3084	7/17/90	Steven Leppällä
Lake Sup. Zoo	7214 Fremont St.	4681	10/14/91	Steven Leppäi
Fire Sta. #8	601 N. Central Ave.	4694	10/15/91	Steven Leppä.a
Fire Sta. #6	1031 N. 51st Ave. E.	4708	10/17/91	Steven Leppälä
Fire Sta. #10	1106 Commonwealth Ave.	5810	10/14/92	Steven Leppälä
Bldng Maint.	1532 W. Michigan St.	5857	10/16/92	James Joslyn
City T.H.	105 N. 40th Ave. W.	5850	10/21/92	James Joslyn
St. Maint.#3	1310 Jefferson	5846	10/28/92	James Joslyn
St. Maint.#1&2	5102 Dodge St.	5847	10/28/92	James Joslyn
HQ Fire Hall	602 W. 2nd St.	6303	5/07/92	Dawn Duncansen

The city of Duluth is also considered a responsible person along with the Minnesota Department of Administration (DOA) for a leak at the Government Services Center (Leak # 4948). The lead has been taken by the DOA for this leak.

On May 3, 1994, Bob Dullinger, Supervisor, Cleanup Unit 2, MPCA, St. Paul, and myself from the MPCA Duluth Regional Office met with Mr. Bob Troolin of your office to discuss these sites. As you can see from the above list, most of these sites were reported some time ago. Only limited information regarding the soil conditions at the bottom of some the tank excavations have been submitted. No information has been provided regarding the extent and magnitude of any remaining soil or ground water contamination. For a typica, leaksite, it has been our policy for some time to expect results of a Remedial

PCA04-1628

Duluth Government Center, Suite 704; 320 West Second St.; Duluth, Minnesota 55802; (218) 723-4660. FAX (218) 723-4727 Central Office: St. Paul Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Mr. Ollenburger Page 2 May 9, 1994

Investigation (RI) within 10 (ten) months of the report date. Mr. Troolin did explain that the city's plan had been to remove all of their underground storage tanks and later return to sites with remaining contamination to do RIS. Because the city's removal plan has taken several years, however, these older leaksites are considerably past due for RI information to be submitted.

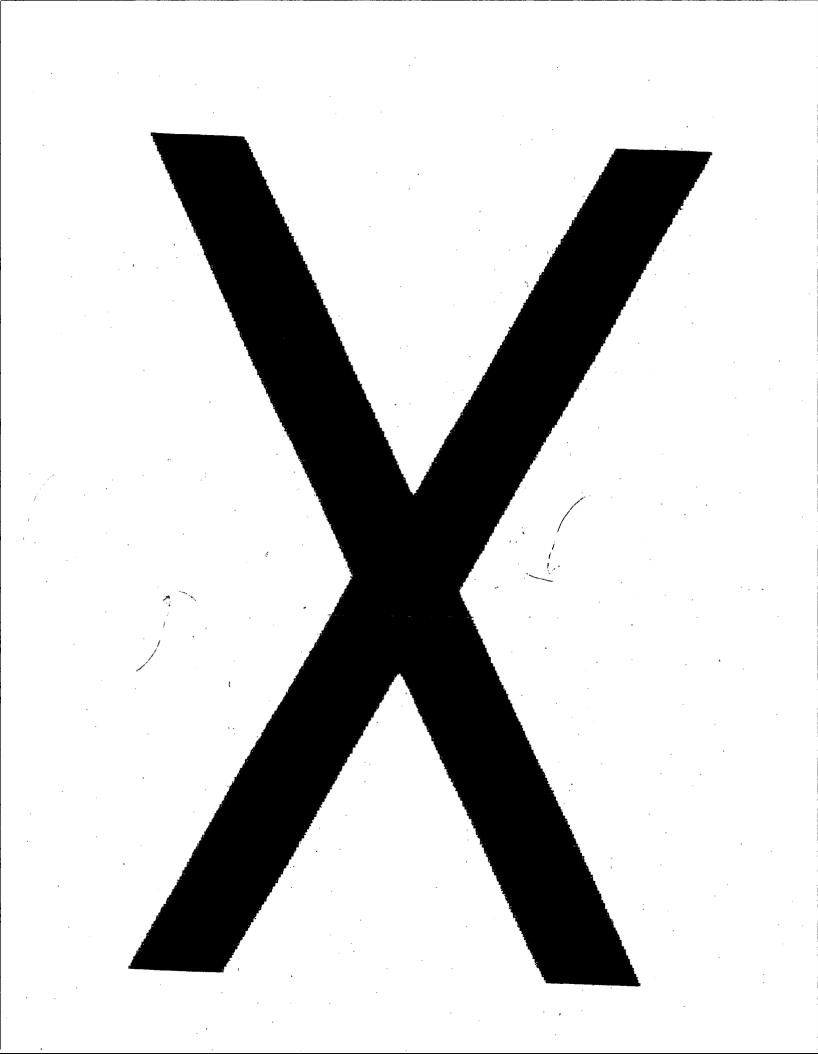
While we acknowledge the apparent financial constraints that Mr. Troolin explained, we must expect proper response from the city of Duluth as we would from any other responsible person. For other similar sites we have recommended a reduction in reimbursement because of "lack of cooperation" for long delays. At the meeting, Mr. Troolin also set forth a preliminary schedule for conducting the RIs at the above sites with work beginning at one site this year and the rest of the sites to begin at a later date. This schedule is not acceptable and enforcement actions will likely result if the schedule to investigate <u>all</u> open sites is not escalated.

The MPCA is requesting a schedule for continued work at these sites and any other City of Duluth leaksites still open that does not appear on the above list. Please provide this schedule within two weeks of the date of this letter.

Sincerely.

Steven J. Leppälä Regional Specialist

cc: Bob Troolin, City of Duluth





Minnesota Pollution Control Agency

April 19, 1993

Mr. Bob Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

Dear Mr. Troolin:

RE: Completion of Land Application Site Soil Monitoring Requirements LEAK 2400: Municipal Garage, 2407 Commonwealth Avenue, Duluth LEAK 2536: Lester Park Golf Course, 1860 Lester River Road, Duluth LEAK 2619: Street Maintenance Garage, 103 East Central Entrance, Duluth

On November 14, 1990, the Minnesota Pollution Control Agency (MPCA) staff issued a letter of approval for land application of petroleum contaminated soil from the site referenced above. The approval letter specified that additional follow-up soil analysis as outlined in part III.C of the MPCA document "Land Treatment of Petroleum Contaminated Soil: Land Treatment Sites" is required at the land application site.

The MPCA staff has received and reviewed the monitoring results for soil samples collected at the land-application site on July 19, 1991. The results indicate that the soil has been adequately treated. Therefore, no further follow-up soil monitoring and tillage is required at the land application site. This area may now be used for crop production if desired.

If you have any questions you may contact me at 218/723-4660.

Sincerely, MA

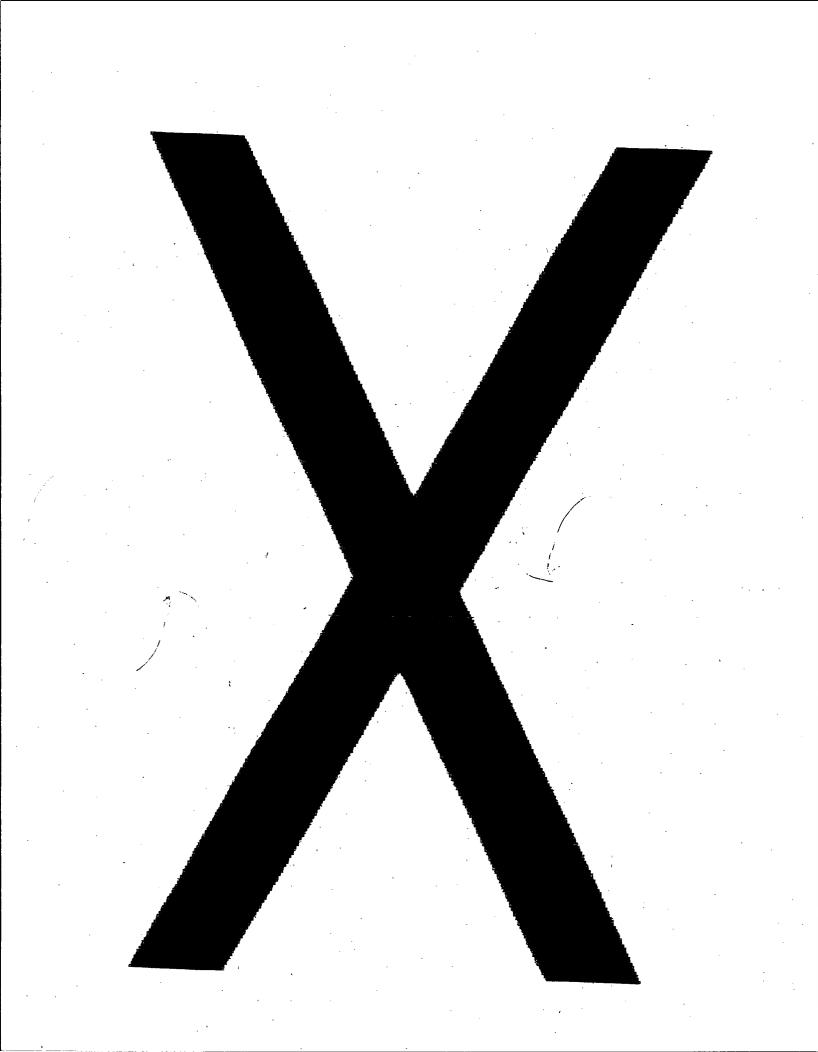
Steven J. Leppälä **Regional Specialist**

Clifford Anderson, Land Treatment Site Land Owner cc: John Jubala, Saint Louis County Zoning Administrator Terry Soderberg, Saint Louis County Solid Waste Officer Rick Hoglund, Twin Ports Testing, Inc.

Greater Minnesota TDD 1-800-627-3529

PCA04-1630

Duluth Government Center, Suite 704; 320 West Second St.; Duluth, Minnesota 55802; (218) 723-4660, FAX (218) 723-4727 Central Office: St. Paul Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Equal Opportunity Employer • Printed on Recycled Paper



LEAK 2536 LLAN 2536 SF-00006-05 (4-86) STATE OF MINNESOTA MN Pollution Control Agency - Duluth DEPARTMENT : Office Memorandum January 7, 1991 DATE : Chris Zadak TO : Tanks and Spills Section Hazardous Waste_Division 1001 00 AND Tim Musick < /

MPCA, HAZARDOUS

WASTE DIVISION

FROM : Tim Musick (/ A// Regional Specialist

PHONE : 218-723-4660

SUBJECT : Cliff Anderson's Multiple Land Application Site, Duluth, MN

On November 6, 1990, Cliff Anderson, Mike Rose and I visited Cliff's multiple land application site for petroleum contaminated soil. The site is located off County Road #4 near the Duluth airport and sanitary landfill.

At the time of this inspection, all of the contaminated soil taken to this site had been spread. According to my calcualtions, approximately 3500 cu. yds. have been delivered to this land application site. However, in reviewing the attached site map provided by Mr. Anderson, only about 2.5 acres (106,000 sq. ft.) have been used to spread the estimated 3500 yds. of contaminated soil. Since we calculate about 530 yds. per acre at a 4 inch thickness, the soil appears to have been spread too thick. although, the undulating surface of the ground plus the then allowable 6 inch spreading depth for area 1 on the site map may account for some of the discrepancies.

Despite the apparent thicker than acceptable soil depths, this site should eventually provide us with "clean" soil but additional discing, fertilization and time may be required. The attached soil analysis of the older area 1 (on the site map) provides us with some evidence that the soil can be cleaned despite the thicker application rates.

In Mr. Anderson's defense, most of the soil taken to his site was the heavy red clay typical of the Duluth area. This type of clay is difficult to handle even under the best of conditions, i.e. ideal moisture content. The attached photos, especially the first photo (area #1), show the furrowing technique Mr. Anderson used to mix the clay soil with the native soil. This particular area had clay that was either too wet or too dry to allow the typical discing technique. Instead, the blade of a cat was used to mix the contaminated soil with the native soil but the technique creates the higher furrow appearance.

If you have any questions concerning the contents of this memo or the attachments feel free to call me.

Photos in file LEAK 1876 60 cm

TAM:ph

cc: Ann Bidwell, Tanks and Spills Section Hazardous Waste Division, MPCA

PCA04-1631

			· · · ·	
SERCO Laboratorie	5			ED 0 31950
31 West County Road C2 St. Paul. Minnesola 55113 (612) 636-7173				· · · · · · · · · · · · · · · · · · ·
				WG
LABORATORY ANALYSIS R 11/21/9		3625		PAGET
· •				<u> </u>
Anderson Sand & Gravel 4597 Old Hwy. 53 Saginaw, MN 55779	DATE RE COLLECT	DLLECTED: ECEIVED: TED BY :	11/13/90 CLIENT	••••
	DELIVEF SAMPLE	RED BY :	CLIENT	
Attn: Cliff Anderson	SAMPLE	TTPE :	SOIL	
	[7	12/3	7	
SERCO SAMPLE NO:	105640	105050	105030	
SAMPLE DESCRIPTION:	Sample 1	Sample 2	Sample 3	- anthing I
ANALYSIS:	· West	Middle	East	- 3 sections
Benzene, mg/kg	0.006	0.006	<0.005	
Toluene, mg/kg	<0.005			- 949
Ethylbenzene, mg/kg	<0.005	<0.005	<0.005	NAME
Xylene, mg/kg	0.007	0.006	0.009	
FID Scan, mg/kg, as gasoline	<0.50	<0.50	<0.50	(Jul)
FID Scan, mg/kg, as #2 fuel oil	<2.0	<2.0	<2.0	(averading
All analyses were performed using EPA	or other a	ccepted m	ethodolo	

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

> Report submitted by, ager Hwyy Duloth Stet City of Duloth Combined 2 rome.

Jerome A. Kostelecky Project Manager

PCA04-1633

inn



۱

CHAIN OF CUSTODY

ABORATORIES 1 YEST COUNTY ROAD C2 . PAUL, NN. 55113 2-636-7173 : 612-636-7178 PANT: C. ANDERSON RESS: 4597 Old Hwy 53 Saginaw, MN 55779 EPHONE: 218 729 9433

SAMPLING ADDRESS: Hwy Site # 4 C. A. Andoron SAMPLER: (SIGNATURE) Jerome Kastelecky PROJECT SUPERVISOR: S. THINKEY SAMPLE LOT NUMBER () DISCREPANCY YES NO SL 59 COOLER NUMBER CLIENT NOTIFIED

TEMPERATURE OF COOLER ON RECEIPT AT LABORATORY

CANPLE CUMBER	DATE	TÍME 	METHOD	SAMPLE TYPE	SITE LOCATION	HUMBER AND TYPE OF BOTTLES			REMARKS
	12-90	9:	Dig	·	W	r	 		
2	11	 	1 ,/		middle	1			
3	1 1/	l L	1 11	 1	Middle Sast	1		 	
	1 	 L	 						
	 	I I	 	l L] 				
. <u> </u>	 	· 		 	 				-
] 1	l				
<u></u>		 	 	 !	l 1	·			
			I I	 1	 1				
	·		l 1] [
. I NOU I SHED	9 BY	÷	DATE	TIME	·	RECEIVED BY	(SIGU	ATURE	AND COMPANY)
		<u> </u>		N PI	Parka	Jelisa	i St	RA	s 1/13/90 11:00
				A)	٩	ଓ			- 1/13/20 11:00 Duluth
									S W

AN Status Status

II Samples- Discount - Pr	yer" De	erome t .il	Costelecky 10 AUG 22 1990	
SERCO Laboratories	# 95	nrist: per		
931 West County Road C2. St. Paul. Minnesola 55113 (612) 636-7173			Clean Threac	۲ ۶
).	\sim		
LASOPATORY ANALYS S BE 06,16,00		1238	50A#	
Twit Ports Testing 1309 North To rotStreet Super on, Will Skeen	IATE RE COLLECT CEL-ME		C. =	
Attn: Jack Grangulat				
SERCO SAMPLE NO:	87840	67330	87360	
SAMPLE DESCRIPT ON:	88-1 283-908	· 65-1	S9-3	
ANALYS S:				
Sengene, mg/kg Etny persene, mg/kg To uene, mg/kg Ky ene, mg/kg F:O Scan, mg/kg, as F2 fuel occ	<0:005 <0:005 <0:005 <0:005 <0:005 <2:0	<pre>>>.006 >0.005 <0.005 <0.005 <0.005 <1.0</pre>	<0.008 <0.008 <0.003 <0.005 <0.005 <2.0	

A languages were performed using EPA or other appended methodologies. Samples that may be of an environmentally becardous hature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contait me if other arrangements are needed.

Report submitted by,

nderson

Djate V. Anderson Project Manager





1931 West County Road C2. St. Paul. Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS RE 08/02/91		7309	F	AGE 1
Anderson Sand & Gravel 4597 Gld Hwy. 53 Saginaw, MN 55779 Attn: Cliff Anderson	DATE COLLECTED: 07/19/91 DATE RECEIVED: 07/19/91 COLLECTED BY : CLIENT DELIVERED BY : CLIENT SAMPLE TYPE : SOIL			
SERCO SAMPLE NO:	71321	71331	71341	71351
SAMPLE DESCRIPTION: ANALYSIS:	of Duluth	of	Arrow- head A	head
Benzene. mg/kg Toluene, mg/kg Ethylbenzene, mg/kg Xvlene, mg/kg FID Scan, mg/kg, as gasoline	0.010 <0.005 <0.005	0.015 <0.005 0.012	0.035 <0.005 <0.005 0.007 <0.50	<0.005 <0.005 <0.005
FID Scan, mg/kg, as #2 Fuel oil	<2.0	<2.0	<2.0	<2.0

Total Hydo carbon's

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by.

1 mg = 1000 ug.

Jerome A. Kostelecky Project Manager

Tom Johnson-Zenith Dredge < means "not detected at this level".

PCA04-1636

LABORATORY ANALYSIS REPORT NO: 3625 01/18/91

PAGE 1

Anderson	Sand & Gravel	DATE COLLECTED:	11/12/90
4597 Old	Hwy. 53	DATE RECEIVED:	11/13/90
Saginaw,	MN 55779	COLLECTED BY :	CLIENT
		DELIVERED BY :	CLIENT
		SAMPLE TYPE :	SOIL

Attn: Cliff Anderson

SERCO SAMPLE NO:	105640	105650	105660 1
SAMPLE DESCRIPTION: ANALYSIS:	Sample 1 West	Sample 2 Middle	Sample 3 East
Benzene, mg/kg Toluene, mg/kg Ethylbenzene, mg/kg Xylene, mg/kg FID Scan, mg/kg, as gasoline	0.004 <0.005 <0.005 0.007 <0.50	0.004 <0.005 <0.005 0.006 <0.50	<0.005 <0.005 <0.005 0.009 <0.50
FID Scan, mg/kg, as #2 fuel oil	<2.0	<2.0	·<2.0

All analyses were performed using EPA or other accepted methodologies. . Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

Jerome A. Kostelecky Froject Manager

MINNESOTA POLLUTION CONTROL AGENCY COMMISSIONER'S SITE REPORT TO THE PETROLEUM TANK RELEASE COMPENSATION BOARD

Site: Lester Park Golf Course

Site ID#: LEAK00002536

Applicant: City of Duluth

Date of Application: October 9, 1991

Date of Underground Storage Tank Registration: October 8, 1986

1. Eligibility Determination

I hereby make the determinations, regarding the above-referenced petroleum tank release site, that the corrective action taken by the applicant was appropriate in terms of protecting public health, welfare, and the environment and that the applicant is eligible for Petrofund reimbursement, pursuant to Minn. Stat. § 115C.09, subd. 2, items (a) and (c) (1990).

2. Compliance with Applicable Requirements: INADEQUATE

Information readily available to the Minnesota Pollution Control Agency (MPCA) staff shows that the applicant has complied with the applicable requirements of Minn. Stat. § 115C.09, subd. 3(d)(1990) with the following exception:

At the time of the release, the underground petroleum storage tanks did not have adequate leak detection measures in place as required by Minn. Rule pt. 7150.0310 and/or U.S. Environmental Protection Agency regulations, at 40 CFR § 280.41.

3. Reimbursement Reduction Recommendation:

The MPCA staff recommends a reduction in the amount of reimbursement available to the applicant, under 1991 Minn. Laws ch. 175, § 5 (to be codified as Minn. Stat. 115C.09, Subd. 3(e)), based upon the compliance failure noted above.

The determinations in this report are made solely for the purpose of determining eligibility for reimbursement under Minn. Stat. § 115C.09, subds. 2 and 3 (1990). Nothing in this site report releases any person from liability, and the MPCA does not waive any of its authority to require additional corrective action at the above-referenced site or to enforce other provisions of state law.

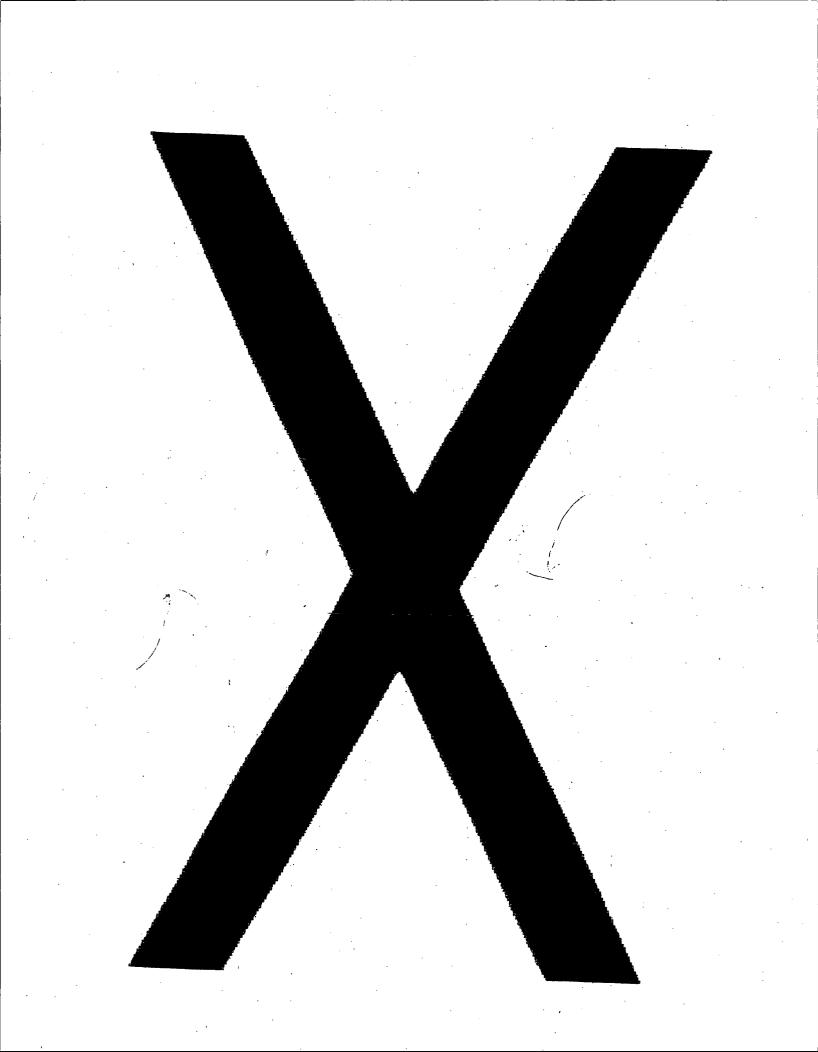
Dated: Nov 26 1991

d Michael Kanner, Manager

1

Tanks and Spills Section Hazardous Waste Division

PCA04-1638





Minnesota Pollution Con. J Agency

520 Lafayette Road, Saint Paul, Minnesota 55155-3898 Telephone (612) 296-6300

November 14, 1991

Mr. Bob Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

Dear Mr. Troolin:

RE: Contaminated Soil Corrective Action Plan Approval Site: Lester Park Golf Course, 1860 Lester River Road, Duluth Site ID#: LEAK00002536

The Minnesota Pollution Control Agency (MPCA) staff has reviewed your Contaminated Soil Corrective Action Plan dated October 9, 1991, documenting the approval of treatment of contaminated soil and additional information relating to the petroleum tank release(s) at the above-referenced site. The MPCA staff hereby approves this plan.

This approval qualifies you under Minn. Stat. § 115C.09, subd. 2(a)(1) (supp. 1991) to be eligible for Petrofund reimbursement of eligible cleanup costs incurred up to the date of this letter. Applications for reimbursement must be made directly to the Petro Board. The Petro Board makes the final decision on reimbursement. Reimbursement decisions are based on factors such as the adequacy of cleanup, reasonableness of cost, compliance with notification laws, and cooperativeness with the MPCA.

You will be eligible to apply for reimbursement at several subsequent cleanup stages, provided that the necessary additional investigation and cleanup is conducted. The MPCA fact sheet "Petrofund Reimbursement Process" outlines these subsequent stages and the necessary submittals required at these stages.

The MPCA requests that the necessary additional investigation and cleanup continue and that the results are submitted in accordance with the following comments:

- Complete all necessary investigation and cleanup and report the results in accordance with the MPCA document "Petroleum Tank Release Reports" (May 1991) and other appropriate MPCA technical documents.
- 2. The completed Remedial Investigation/Corrective Action Design (or Excavation Report, if excavation alone addressed the release) should be submitted to the

Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Equal Opportunity Employer • Printed on Recycled Paper Mr. Bob Troolin Page 2 November 14, 1991

> MPCA no later than 120 days after the date of this letter. If you are unable to meet this deadline, please contact me. Failure to proceed in a timely manner with the necessary additional investigation and corrective action may result in a recommendation for reduction of Petrofund reimbursement.

If you have any questions, you may contact me at 612/297-8604.

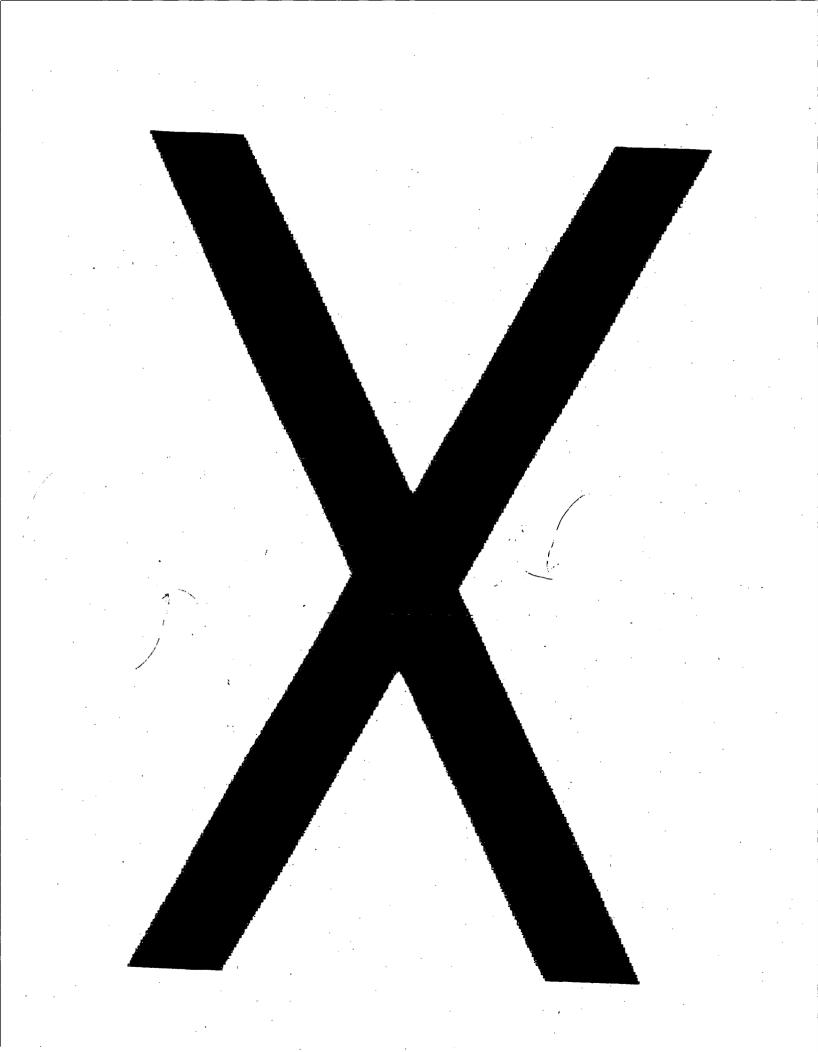
Sincerely,

Zalal

Christopher Zadak Pollution Control Specialist Senior Tanks and Spills Section Hazardous Waste Division

CZ:kra

cc: Robin Hanson, Department of Commerce, St. Paul





DEPARTMENT OF ADMINISTRATION Administrative Services Division D·U·L·U·T·H 313 City Hall • Duluth, Minnesota 55802-1195 218/723-3291

October 10, 1991

DCT 14 91

Chris Zadak Minnesota Pollution Control Agency Hazardous Waste Division Tanks and Spills Section 520 Lafayett Road North St. Paul, Minnesota 55155

Dear Chris:

Enclosed are the Petroleum Contaminated Soil Corrective Action Worksheets for the below five sites. The City of Duluth has completed phase one. I have also completed the applications for reimbursement from the Petroleum Tank Release Compensation Board.

The five sites are:

Leak #	Site Name	Dollar Amount
2400	Far West	\$ 9,742.84
2536	Lester Park	\$ 9,011.82
2943	42nd Tool House	\$ 8,651.59
2619	Central Entrance	\$15,337.23
1005	2416 W. 9th Street	\$ 2,184.30

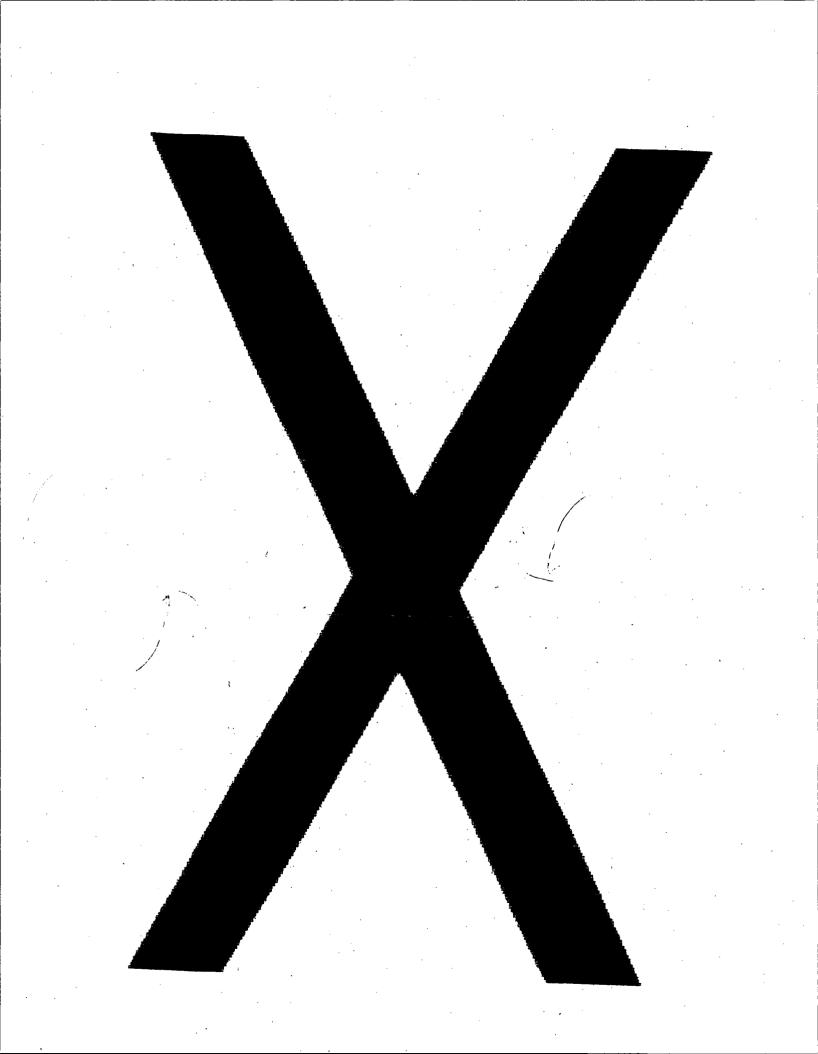
Thank you for your assistance.

Sincerely,

BOB TROOLIN, CSP Loss Control Manager

BT:blj:c

Enclosures



Petroleum Contaminated Soil __rective Action Worksheet Page 2 May 1991

I. SITE INFORMATION

Site: LESTER PARK GOLF COURSE Street: 1860 LESTER RIVER ROAD City, Zip: DULLITH, MIL 55804 County: 5T. 60015

MPCA Site ID#: LEAK00002536

Tank owner/operator (or volunteer): CITY OF DULUTH Street/Box: 313 CITY HALL City, Zip: DULUTH, MALL Telephone: 218-723-3373

II. TANK INFORMATION AND COMPLIANCE

A. Underground Storage Tanks. Complete the following information to reflect the status of your underground storage tanks at the time the release was discovered. Refer to the attachments "Do Underground Storage Tank And Piping Requirements Apply to Your Petroleum Tank?" and "What Do You Have To Do?/When Do You Have To Act?" to determine the applicability of registration, leak detection, corrosion protection, and spill/overfill protection. Indicate "YES" or "NO" for the presence or absence of leak detection, corrosion protection and spill/overfill protection.

Tank	Contents	Capacity	· Type Of Tank	Date Installed	Date Registered	Date Tank & Piping Removed
1	GAS		STEEL		10/8/86	4/24/90
2	UNTRO	265	STEEL 0	FEXCAURT	THE TIME OR OF ANA	4/24/80
3	<u> </u>			BOUE TH	1 n n 	
4	<u> </u>					
5						

(Tanks Continued)

			and the second			
		Tank			Piping	
Tank	Leak Detection	Corrosion Protection	Spill/Overfill Protection	Type of Piping	Leak Detection	Corrosion Protection
1						
2				· · · · · · · · · · · · · · · · · · ·		
3					<u></u>	
4				<u> </u>		
5			<u> </u>		<u></u>	<u></u>

}

· Date 10-day tank removal notice given to MPCA: 4/24/90 PHONE CALL TO THE DULUTU PER OFFICE

LETTER SENT ON SKIGO

· If the tank(s) involved in the release were removed after July 9, 1990, complete the following:

Removal Contractor: Certification Number: _____

· If the tank(s) involved in the release were installed after July 9, 1990, complete the following:

Installation Contractor: _____ Certification Number: ____

B. Aboveground Storage Tanks. Complete the following information to reflect the status of your aboveground storage tanks at the time the release was discovered. The registration requirements for aboveground storage tanks are based on the same criteria as the registration requirements for underground storage tanks--refer to the attachments "Do Underground Storage Tank And Piping Requirements Apply to Your Petroleum Tank?" In describing your secondary containment, specify the materials used in the construction of both the base and the walls.

Tank	Contents	Capacity	Date Installed	Date Registered	Description of Secondary Containment
1					
2					
3					
4		<u></u>		<u></u>	
5					

Petroleum Contaminated Soil rective Action Worksheet Page 4 May 1991

III. SOIL TREATMENT APPROVAL INFORMATION

Treatment used/proposed: ("X" the option)

- **X** Landfarming
- Thermal Treatment (indicate treatment facility_____
- Other (Specify

Date MPCA approved soil treatment* : 11/14/90

*if thermal treatment was used/proposed after May 1, 1991, indicate date that the MPCA-permitted thermal treatment facility agreed to accept the soil. Also, unless previously submitted, attach a copy of the thermal treatment application signed by the thermal treatment facility.

IV. PRELIMINARY SITE INVESTIGATION RESULTS

1. Was all soil contaminated above action levels removed from the base and side walls of the excavation? (Soil action levels are described in the MPCA document "Excavation of Petroleum Contaminated Soil" (May 1, 1991))

2. Have petroleum vapors been noticed in utilities or buildings?

If ground water has not been encountered up to this point in the investigation, go to section V; If ground water has been encountered, continue.

3. Was free product observed on ground water (including perched ground water) in the excavation, soil borings, or in monitoring wells?

If free product is found, it must be reported to the MPCA within 24 hours as described in the MPCA document "Petroleum Tank Release Reports" (May 1,1991). If more than 0.1 foot (approximately one inch) of product is present you will most likely be required to install a product recovery system. Preparations for a product recovery system should begin immediately. All recoverable free product should be removed from the excavation and properly disposed of. Notify the MPCA Tanks and Spills staff of the design and Installation of the product recovery system, but do not wait to start the system--it is crucial to begin product recovery as soon as possible. If less than 0.1 foot of product is found, the need for recovery will be based on the results of the Remedial Investigation.

5. Was there a petroleum sheen on the ground water?

THE EXCANATION - WATER PUMPEDOOT IN

NO

6. Are there any shallow wells on the site or adjoining properties?



Ś.



YES

NO

7

,

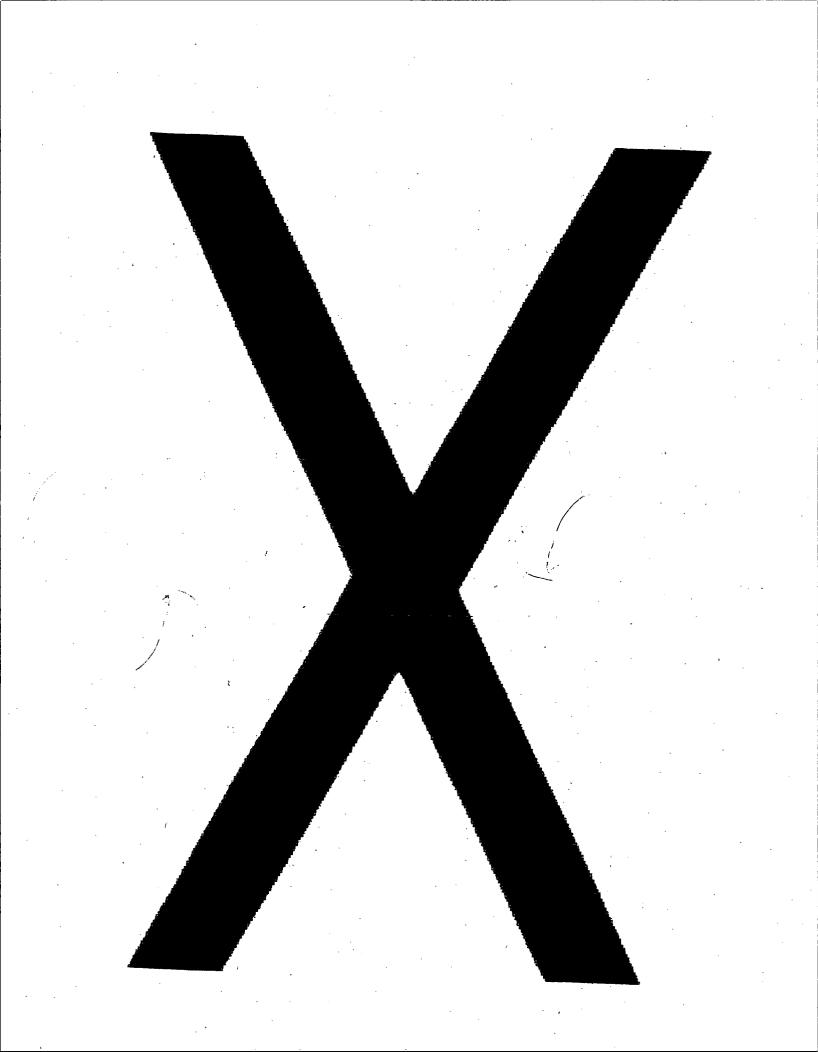
V. INDIVIDUAL PREPARING THIS WORKSHEET

Company Name: CITY OF DULUTIS Street/Box: 3/3 CITY HALL City, Zip: DULUTA, MALL Telephone: 2:55802 Telephone: 218-723-3373 Contact: BOB TROOLIN Signature.

Date: 10/9/9,

Please mail this worksheet and all necessary attachments to:

(Project Manager) Minnesota Pollution Control Agency Hazardous Waste Division Tanks and Spills Section 520 Lafayette Road North Saint Paul, Minnesota 55155



LEAR 2536

SF-00006-05 (4/86)

DEPARTMENT :

MN Pollution Control Agency - Duluth

STATE OF MINNESOTA

Office Memorandum

January 7, 1991 DATE

- Chris Zadak TO : Tanks and Spills Section Hazardous Waste_Division
- Tim Musick < FROM : Regional Specialist



MPCA, HAZARDOUS WASTE DIVISION

218-723-4660 PHONE :

Cliff Anderson's Multiple Land Application Site, Duluth, MN SUBJECT :

On November 6, 1990, Cliff Anderson, Mike Rose and I visited Cliff's multiple land application site for petroleum contaminated soil. The site is located off County Road #4 near the Duluth airport and sanitary landfill.

At the time of this inspection, all of the contaminated soil taken to this site had been spread. According to my calcualtions, approximately 3500 cu. yds. have been delivered to this land application site. However, in reviewing the attached site map provided by Mr. Anderson, only about 2.5 acres (106,000 sq. ft.) have been used to spread the estimated 3500 yds. of contaminated soil. Since we calculate about 530 yds. per acre at a 4 inch thickness, the soil appears to have been spread too thick. although, the undulating surface of the ground plus the then allowable 6 inch spreading depth for area 1 on the site map may account for some of the discrepancies.

Despite the apparent thicker than acceptable soil depths, this site should eventually provide us with "clean" soil but additional discing, fertilization and time may be required. The attached soil analysis of the older area 1 (on the site map) provides us with some evidence that the soil can be cleaned despite the thicker application rates.

In Mr. Anderson's defense, most of the soil taken to his site was the heavy red clay typical of the Duluth area. This type of clay is difficult to handle even under the best of conditions, i.e. ideal moisture content. The attached photos, especially the first photo (area #1), show the furrowing technique Mr. Anderson used to mix the clay soil with the native soil. This particular area had clay that was either too wet or too dry to allow the typical discing technique. Instead, the blade of a cat was used to mix the contaminated soil with the native soil but the technique creates the higher furrow appearance.

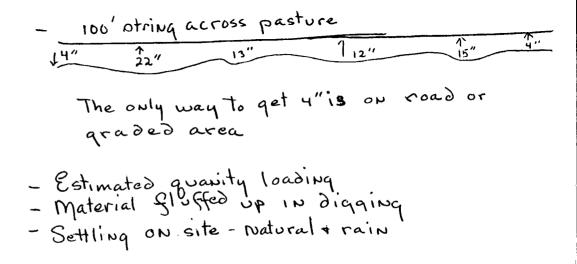
If you have any questions concerning the contents of this memo or the attachments feel free to call me.

TAM:ph

cc: Ann Bidwell, Tanks and Spills Section Hazardous Waste Division, MPCA

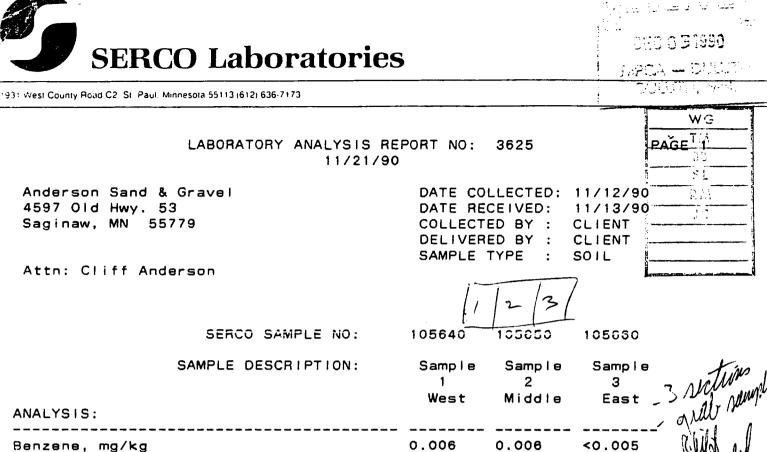
Photos in file LEAK 1876

Non (110 152 7,475 U Comprises Only on Arrowhead Black Top 10,700 City 400/ Open 123 City 59th w Lighthouse/Blind 185 Fy) Benning Park Combined City Sites 95 ভ 41,600 89,2809 20 4 35 00 City of Duluth 40th W 6 7 8 3 Open 190 St. Ben. Church 195 Tq) Salvation any 260 20-7 20,475 00 1- we haved (3) 2- Frrowhead hauled **8**Ś 96' 3- Walthom hauled $(\mathbf{1})$ 55' We haved 225' → Hwy[#]4 134 hauled De BOBD 6-We haved 12,600 00 (J) (9) 7. City hauled 8-we'hauled, 70 8 6 9-We hauled Open ? 180'



PCA04-1648

(I'W Wille



Benzene, mg/kg	
Toluene, mg/kg	
Ethylbenzene, mg/kg	
Xylene, mg/kg	
FID Scan, mg/kg, as gasoline	

FID Scan, mg/kg, as #2 fuel oil

١

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

<0.005

<0.005

0.007

<0.50

<2.0

<0.005

<0.005

0.006

<0.50

<2.0

<0.005 <0.005

0.009

<0.50

<2.0

stet city of Duloth Combined Jerome A. Kostelecky

Project Manager



< means "not detected at this level". 1 mg = 1000 ug.

PCA04-1649

(Duru) accordini lab

CHAIN	OF	CUSTODY

D LABORATORIES
\$31 WEST COUNTY ROAD C2
T. PAUL, NN. 55113
12-636-7173
AX 612-636-7178
OMPANY: C. ANDERSON
DORESS: 4597 010 Hwy 53
Saginaw, MN 55779
ELEPHONE: 218 729 9433
W:

:

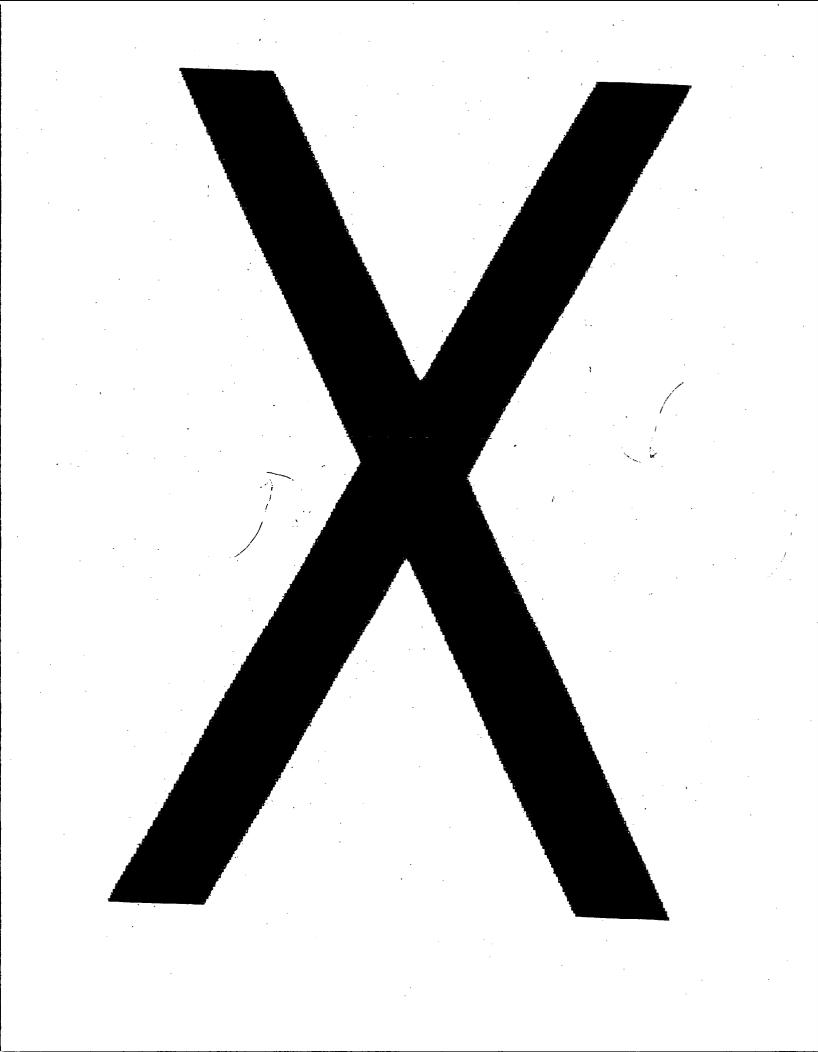
SAMPLING ADDRESS: Hwy Site # 4
SANPLER: C. A. ANdorson
(SIGNATURE) - JEROME KAStelecky PROJECT SUPERVISOR: 5 JAMAGE
SAMPLE LOT NUMBER
COOLER NUMBER SL 59 CLIENT NOTIFIED
TENDEDATION OF COOLED ON

TEMPERATURE OF COOLER ON RECEIPT AT LABORATORY

SAMPLE NUMBER	DATE	TÎNE 	METHOD	SAMPLE TYPE	SITE LOCATION	NUMBER AND TYPE OF BOTTLES	REMARKS
1	12-90	9:	Dig	·	W	l r	
2	1 11	1 1	,,	 	middle	1	
3	+/	l 1	11	 	Middle East	1	
		 L	l I	 			
	! 	[[
		• 	 	 	 		
	1	 	 	 	 		
		 	} [
	· ·		! !	 			

LINQUISHED BY	DATE	TIME	RECEIVED BY (SIGNATURE AND COMPANY)
<u>ا</u>			M Park a Derensone SERCO 11/13/90 11:00
°			AN Deluth
			AN DIATI CITUS
•.		<u> </u>	AN Strate Tobs
			AN PN

۱





LAND APPLICATION APPROVAL

November 14, 1990

Mr. Robert Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

Dear Mr. Troolin:

RE: Approval of Land Application of Petroleum Contaminated Soil Site: Site ID#: LEAK00002536

The application submitted by your consultant dated September 6, 1990, to land apply approximately 396 cubic yards of petroleum contaminated soil is hereby approved by staff of the Minnesota Pollution Control Agency (MPCA). This approval is based upon the MPCA staff's understanding that the appropriate county and local officials have been notified and/or have given approval for the land application of this soil and is subject to the following additional conditions:

- 1. Stockpiled soils shall be protected from infiltration and runoff prior to land application.
- 2. Soil shall be applied to land located in St. Louis County, City of Duluth, NW¹ of SE¹ of Section 6, Twp. 50N, Range 14W.
- 3. Soils shall be spread to a thickness of no more than four inches and incorporated into the top six inches of native soil per MPCA document "Land Application of Petroleum Contaminated Soil: Single Application Site" (April 25, 1990). Soils shall be disked once per month during the growing season.
- 4. The land-applied soil shall be sampled and reports shall be submitted in accordance with part III.C of the attached MPCA land application document until analyses indicate 10 parts per million total petroleum hydrocarbons or lower. The attached MPCA form entitled "Soil Monitoring Results for Land-Applied Petroleum Contaminated Soil" should be used for reporting.

Mr. Robert Troolin Duluth, Minnesota Page Two

We believe these actions will provide adequate treatment of petroleum contaminated soils. The MPCA reserves the right to require additional work if this is determined to be necessary to protect public health and the environment. This letter does not release any party from liability for this contamination.

Please contact me at 218-723-4660, if you have any further questions.

Sincerely,

mothy a. Munich

Timothy A. Musick Regional Specialist Tanks and Spills Section Hazardous Waste Division

cc: Chris Zadak, Project Leader, Tanks & Spills Section, Hazardous Waste Division, MPCA, St. Paul John Jubala, Zoning Administrator, St. Louis County Health Department, 1001 East First Street, Duluth, MN 55802-2242 Rick Hoglund, Twin Ports Testing, Inc., 1301 North Third Street, Superior, Wisconsin 54880

APPLICATION 10 LAND APPLY PETROLEUM CONTAMINATED SOREC'D SEP 6 1990 Minnesota Pollution Control Agency Tanks and Spills Section April 25, 1990 Refer to the Minnesota Pollution Control Agency (MPCA) document "Land Application of Petroleum Contaminated Soil: Single Application Sites" for specific information on acceptable soil and site criteria. I. BACKGROUND INFORMATION A. Tank owner/operator mailing address: B. Site from which contaminated soil originated: Lester Park Contact: Mr. Bob Troolin bolt Course Company name: Eity of Duluth Street/Box: 313 Eity Hall City, Zip: Duluth, Minnesota 55802 Telephone: Duluth, Minnesota 55802 Company name: Eity Duluth Street: 1860 Lister River Road City, Zip: Duluth, 57804 Telephone: 218 - 723 - 3291 County: ST. Louis C. Address or legal descripton D. Consultant (or other) of land spreading site: preparing this form: Contact: Rick Hoghend/ Granguis Company name: Twin Ports Tuting Contact: Eliff Anderson Street: Founty Rd #4/ Airport Rd. City, Zip: Dyluth, Minnesota 55811 Telephone: 218 129-9433 Street/Box: City, Zip: Superior Telephone: 715-392-7/14 \underline{NW} 1/4 of <u>SE</u> 1/4 of Section 6 Township Jon, Range 1411 Township Name Fity of Duluth E: MPCA Site ID#: LEAK0000 2536 Have there been past waste disposal activities at the proposed site? H. No Yes X, please explain. It is a MPFA multiple use site E AND SOIL CHARACTERISTICS Son land application of petroloum II. SITE AND SOIL CHARACTERISTICS contaminated soils. A. Site slope (percent): - ⊀ B. Distance to surface water (feet or miles): × C. Distance to nearest building or residence (feet): × D. Depth to seasonal high water table (feet): Depth to field tile lines (feet): 😽 If bedrock exists at 8 feet or less, indicate depth (feet): * E. Area of land to be used (square feet or acres): F. Spreading thickness (inches): III. SOIL SAMPLING RESULTS A. If soil nutrient tests were conducted, list the results below: Sample Organic Extractable Number Matter, Percent Phosphorus, ppm PCA04-1653

spicitic characteristics please

SLL MPCA

Application to Land Apply Petroleum Contaminated Soil Page 2 April 25, 1990

> If fertilizers will be applied, provide application rates: _____lbs. nitrogen/acre, _____lbs. P205/acre, _____lbs. sulfur/acre

B. Circle the type(s) of petroleum contamination: unleaded gas, regular gas, diesel fuel, No. 2 fuel oil, waste oil, other (please specify

List the appropriate soil sample analytical results from the excavated contaminated soil (refer to the MPCA document "Soil and Ground Water Analysis at Petroleum Release Sites"). If the petroleum was not gasoline or fuel oil attach a separate table.

Sample Number	THC as gas or FO ppm	Benzene ppm	Ethyl- benzene ppm	Toluene ppm	Xylene ppm	MTBE ppm	Lead ppm	
55-2	230	3.3	2.3	8.3	20		38	
55-16	120	BOL	0.29	BDL	0.97		23	
<u></u>			·	<u> </u>				
	<u> </u>	<u></u>					. <u></u>	

NOTE: ATTACH COPIES OF LABORATORY RESULTS AND CHAIN OF CUSTODY FORMS

IV. FIGURES

Include the following figures:

- A. Copy of county soil survey map (if the county has been mapped) with copies of the interpretation tables or interpretation sheets.
- B. Site location map with exact application location marked (scale should be approximately one inch = 50 feet)

Signature and Title of MPCA Staff Inspector (or other authorized inspector):

michael V. Tu	Date Inspected	: 11-06-90
Signature and Title	of County Official:	,
Signature and Title	of City/Township Official:	······
*****	*****	****
Mail to:	Minnesota Pollution Control Agenc	2 y
	Attention: (Project Manager) Hazardous Waste Division	·
	Tanks and Spills Section 520 Lafayette Road	PCA04-1654
	St. Paul, Minnesota 55155	• • • •

TABLE 2

Summary of Soil Sample Analysis

Lester Park Golf Course 1860 Lester River Road Duluth, Minnesota 55804

TPT #91-90E

Sample #	SS #2	SS #6	SS #5	SS #7	SS #16	SS #14
Location	Below tank	Bottom test hole #1	Bottom center of excav.	Bottom test hole #2	Bottom E of center of excav.	North wall W of center of excav.
Depth	7	6 1/2'	10'	6 1/2'	8'	
Benzene (ppm)	3.3	<0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Ethylbenzene (ppm)	2.3	0.007	<0.005	0.52	0.29	<0.005
Toluene (ppm)	8.3	<0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Xylene (ppm)	20	0.016	0.011	0.42	0.97	0.006
FID Scan Total Hydrocarbons as Fuel Oll (ppm	(A)	<2.0	<2.0	140	120	<2.0
FID Scan Total Hydrocarbons as Gasoline (ppm)	230	<0.50	<0.50	(B)	(B)	<0.50
Lead, as Pb (ppm)	38	12	17	14	23	13

(A) = Unable to quantify due to presence of gasoline

(B) = Unable to quantify due to presence of fuel oil

(C) = Increased detection limits due to high level of contamination



931 West County Roao C2 St. Paul. Minnesola 55113 (612) 636-7173

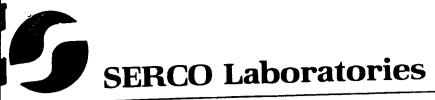
h through

LABORATORY ANALYSIS REP 06/01/90	ORT NO:	1131	P	AGE 1
Twin Ports Testing 1301 North Third Street Superior, WI 54880	DATE COL DATE REC COLLECTE DELIVERE SAMPLE 1	EIVED: DBY: DBY:	CLIENT	05/07/90
Attn: Jack Granquist			`	
SERCO SAMPLE NO:	34140	34150	34160	34170
SAMPLE DESCRIPTION:	SS#2 91-90E Lester Golf	SS#6	SS#5	SS#7
Bønzene, mg/kg Ethylbenzene, mg/kg Toluene, mg/kg Yvlene, mg/kg	2.3 8.3 20	0.007 <0.005 0.016	<0.005 <0.005 <0.005 0.011 <2.0	0.52 <0.01(C)
FID Scan, mg/kg, as w2 radi dri FID Scan, mg/kg, as gasoline Lead, mg/kg as Pb	230 38	<0.50 12	<0.50 17	(B) 14
SERCO SAMPLE NO:	34180	34190		
SAMPLE DESCRIPTION:	SS#16	SS#14		
ANALYSIS:			_	
Benzene, mg/kg Ethylbenzene, mg/kg Toluene, mg/kg Xylene, mg/kg FID Scan, mg/kg, as #2 fuel oil	<0.01(C) 0.29 <0.01(C) 0.97 120	<0.005	-	
FID Scan, mg/kg, as gasoline Lead, mg/kg as Pb	(B) 23	<0.50 13		
 (A) Unable to quantify due to the presen (B) Unable to quantify due to the presen (C) Increased detection limits due to have 	nce of fu	el oil.	amination.	-1656
				PCA04-1656

.C'D JUN 5 1990

REC'D JUN 5 1990

PAGE 2



1931 West County Road C2, St. Paul, Minnesota 55113 (612) 636-7173

1.11

LABORATORY ANALYSIS REPORT NO: 1131 06/01/90

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

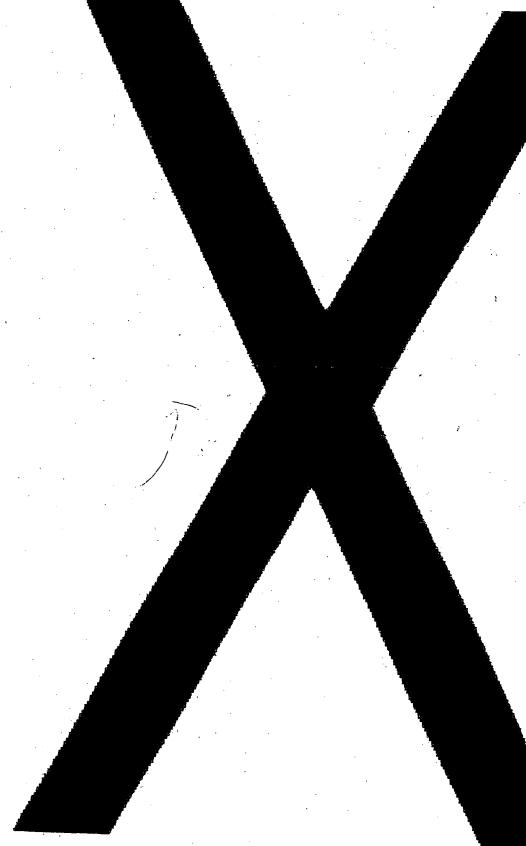
nderson

Diane J. Anderson Project Manager

PCA04-1657



1 mg = 1000 ug



• · .

•



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155 Telephone (612) 296-6300

Mr. Bob Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

August 24, 1990

Dear Mr. Troolin:

- RE: Incomplete Tank Release Reports
 - Sites: Lester Park Golf Course, 1860 Lester River Road, Duluth (LEAK00002536)
 - Parks & Recreation Toolhouse, 101 W. 42nd Street, Duluth (LEAK00002943)
 - City Hall and Police Garage, 411 West First Street, Duluth (LEAK00003084)
 - City of Duluth Toolhouse, 103 East Central Entrance, Duluth (LEAK00002619)

The Minnesota Pollution Control Agency (MPCA) has received excavation reports for the above-referenced sites. Due to our increasing workload it is MPCA Tanks and Spills Section policy that excavation reports which indicate that a follow-up remedial investigation (RI) is necessary will not be reviewed by MPCA staff until the RI and corrective action design (if needed) has been completed. This policy is discussed in both MPCA documents "Excavation of Petroleum Contaminated Soil" and "Petroleum Tank Release Reports" which have been enclosed in previous correspondence.

Also, there are three other City of Duluth sites which the MPCA may be able to close at this time, but we are unable to do so due to the lack of follow-up soil monitoring at the land application site used. The leaksites are the Gary Recreation Center (LEAK00001876), the Sewer Maintenance Toolhouse (LEAK00002620), and the Duluth Public Library (LEAK00002923). When we received the monitoring information, along with confirmation that the land application procedures have been carried out in accordance with our guidelines, we will consider these sites for closure. The enclosed MPCA document "Land Application of Petroleum Contaminated Soil" describes the procedures for land application and monitoring.

If you have any questions please call me at 612/643-3457.

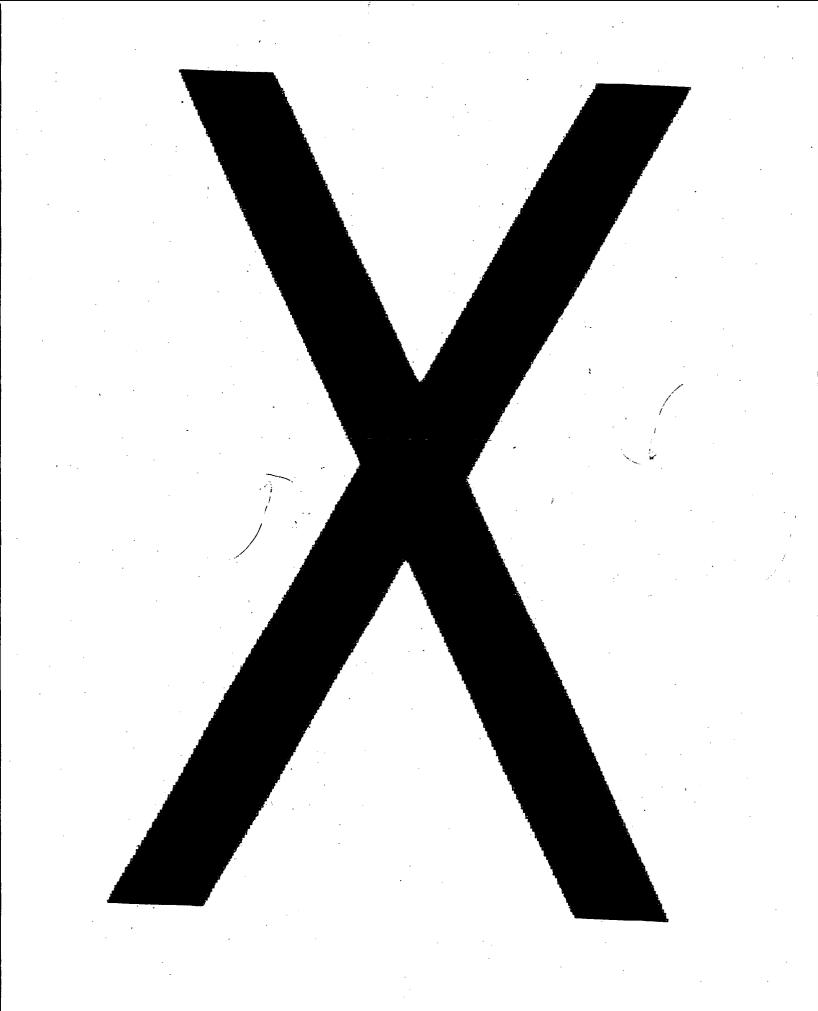
Sincerely, Sulal.

Christopher Zadak Pollution Control Specialist Tanks and Spills Section Hazardous Waste Division CZ:ts cc: Jack Granquist, Twin Ports Testing Zandy Zweibel, Twin Ports Testing Rick Palm, Twin Ports Testing

PCA04-1658

Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Equal Opportunity Employer

Printed on Recycled Paper





CITY OF DULUTH DEPARTMENT OF ADMINISTRATION

Administrative Services Division D·U·L·U·T·H 313 City Hall • Duluth, Minnesota 55802-1195 218/723-3291



August 9, 1990

MPCA, HAZARDOUS WASTE DIVISION

Minnesota Pollution Control Agency Hazardous Waste Division Tanks and Spills Section Sixth Floor 520 Lafayette Road North St. Paul, Minnesota 55155

Attn: Chris Zadak

Re: Underground storage tank removal

Dear Chris:

On April 24, 1990, the City of Duluth removed two underground storage tanks from the Lester Park Golf Course located at 1860 Lester River Road. The Minnesota Pollution Control Agency Site Identification number is LEAK00002536.

Enclosed with this letter is Twin Ports Testing's Excavation and Petroleum Release Report for the Lester Park Golf Course Maintenance Shop.

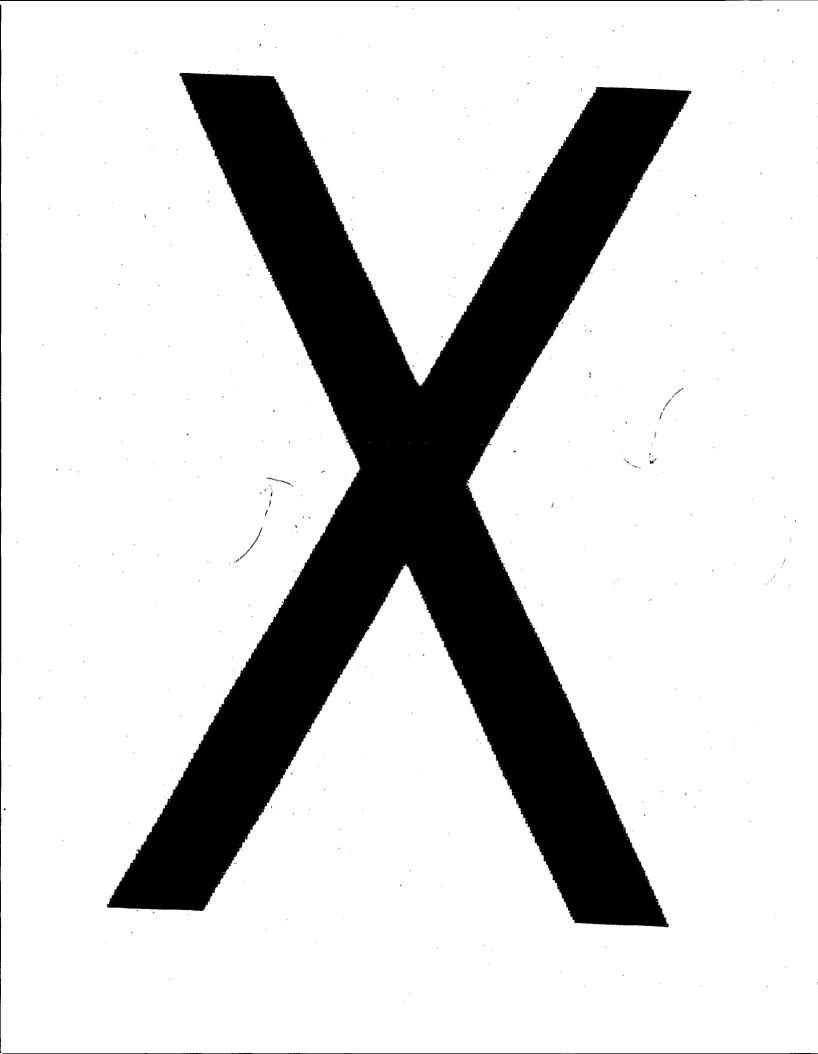
Thank you for your assistance.

It should also be noted that there were contaminants at this location.

Sincgrely,

BOB TROOLIN, CSP Loss Control Manager

BT:blj:c





Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155 Telephone (612) 296-6300

May 30, 1990

Mr. Bob Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

Dear Mr. Troolin:

RE: Petroleum Storage Tank Release Investigation and Corrective Action Site: Lester Park Golf Course, 1860 Lester River Road, Duluth Site ID#: LEAK00002536

The Minnesota Pollution Control Agency (MPCA) has received notification that a release of petroleum has occurred from storage tank facilities which the City of Duluth owns and/or operates.

Federal and state laws require that persons legally responsible for storage tank releases notify the MPCA of the release, investigate the extent of the release and take actions needed to ensure that the release is cleaned up. A person is generally considered legally responsible for a tank release if the person owned or operated the tank either during or after the release.

We are aware that an initial investigation of the site has occurred and petroleum contaminated soils and/or ground water have been identified. The MPCA staff is therefore requesting you to take the necessary steps to investigate and clean up the release in accordance with the enclosed "Outline for Petroleum Tank Release Investigation Report." If you have not already done so, we recommend that you hire a qualified consulting firm who has experience in conducting petroleum release site investigations and taking corrective actions. In addition, you must notify the MPCA within 24 hours if you discover free-floating petroleum product on the surface of the ground water.

If you do perform the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petroleum Tank Release Compensation Board (Petro Board). More specific eligibility rules are available from the Petro Board (612/297-4017).

Please respond to this letter either in writing or by telephone within 30 days after you receive it. Indicate whether or not you intend to proceed with the necessary actions, whom you have chosen to do the work, and a schedule for implementation. Please use the site ID number at the top of this page on all written communication. Mr. Bob Troolin Page 2 May 30, 1990

If you do not respond within 30 days, MPCA staff will assume you do not intend to comply with this request. In this event, the MPCA Commissioner may order you to take corrective action at the site. If you do not comply with the Commissioner's order, it may be enforced in court or, alternatively, the MPCA could spend its own money cleaning up the release and then seek to recover its costs from you or other responsible persons through legal action. Failure to cooperate with the MPCA in a timely manner may also result in reduced reimbursement from the Petro Board.

If you conclude that the release in question is not from any tank which you have owned or operated, please notify the MPCA immediately and explain the basis of your conclusion.

A packet of fact sheets is enclosed for your information.

For site specific questions, contact the site's project manager, Christopher Zadak, at 612/643-3457. In addition, all future correspondence should be addressed to the above mentioned project manager. If you have any general questions regarding the leaking underground storage tank program please call me at 612/643-3435.

PCA04-1663

Thank you.

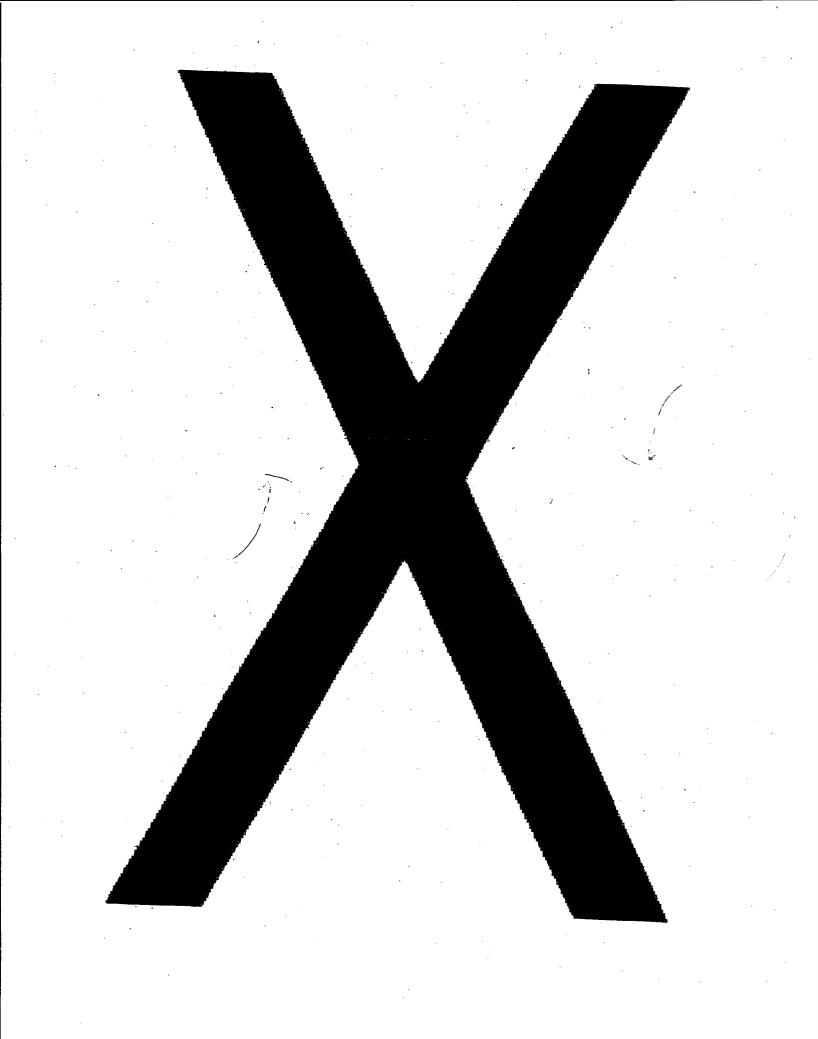
Sincerely. XX

Brenda Heck Pollution Control Specialist Tanks and Spills Section Hazardous Waste Division

BJH:kmf

Enclosures

cc: Jeffery Cox, City Clerk, Duluth Larry Bushey, Fire Chief, Duluth



REMEDIAL INVESTIGATION REPORT

CITY OF DULUTH LESTER PARK GOLF COURSE 1860 LESTER RIVER ROAD DULUTH, MN 55804 FEB 2 0 1000 MIRCA, HAZAT. CUS WASTE DIVISION

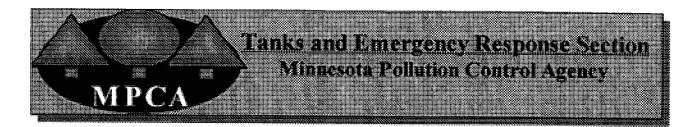
MPCA LEAK # 2536

PREPARED FOR: MR CHUCK FAEGRE CITY OF DULUTH 313 CITY HALL DULUTH, MN 55802

PREPARED BY:

REMEDIATION SERVICES, INC. 102 SOUTH 29TH AVENUE WEST, SUITE 100 DULUTH, MN 55806

JANUARY 1998



Remedial Investigation Report Form

Fact Sheet #3.24 April 1996

This form must be completed for all sites in which a remedial investigation (RI) is conducted--this includes either a *Limited Site Investigation (LSI)* or a *full RI*. Completing this form will provide the MPCA with the minimum amount of information necessary for a *full RI*. Additional information should be included if deemed important for making a site cleanup decision. If the consultant has concluded that a *Limited Site Investigation* is applicable to this site, Section 6 and Section 7 may be deleted from this report.

Refer to MPCA fact sheet #3.19 "Leaking Underground Storage Tank Investigation and Cleanup Policy" for guidance for the overall objectives of an RI and other MPCA fact sheets regarding investigations.

When a tank has been excavated, refer to fact sheets #3.6 "Excavation of Petroleum Contaminated Soil" and #3.7 "Excavation Report Worksheet for Petroleum Release Sites" for reporting requirements.

If free product is discovered, the initial reporting should be done in accordance with fact sheet #3.3 "Free Product: Evaluation and Recovery" and factsheet #3.4 "Free Product Recovery Report Worksheet."

Leak Number: LEAK0000 2536	Date: <u>1/29/98</u>
Responsible Party: City of Duluth	R.P. phone #: (218) 723-3373
Facility Name: City of Duluth, Lester Park Golf Course	
Facility Address: 1860 Lester River Road	City:_ Duluth
County: <u>St. Louis</u>	Zip Code: <u>55804</u>
Location of site: LAT: 5189000mN_LONG: 576000	<u>mE</u> Circle one: <u>UTM</u> /State

TABLE OF CONTENTS

- SECTION 1: Emergency and High Priority Sites
- SECTION 2: Site and Release Information
- SECTION 3: Excavated Soil Information
- SECTION 4: Extent and Magnitude of Soil Contamination
- SECTION 5: Aquifer Characteristics/Ground Water Contamination Assessment
- SECTION 6: Extent and Magnitude of Groundwater Contamination
- SECTION 7: Evaluation of Natural Biodegradation
- SECTION 8: Well Receptor Information/Assessment
- SECTION 9: Surface Water Risk Assessment
- SECTION 10:Vapor Risk Assessment/Survey
- **SECTION 11: Discussion Section**
- **SECTION 12: Conclusions and Recommendations**
- **SECTION 13: Required Figures**
- **SECTION 14: Appendices**
- SECTION 15: Consultant (or other) information

Section 1: Emergency and High Priority Sites

1.	Is an existing drinking water well impacted?	YES NO_X_
2.	Are there any existing vapor impacts?	YES NO_X
3.	Is there an existing surface water impact as indicated by 1) a product sheen on the surface water or 2) a product sheen or volatile organic compounds in the part per million range in ground water in a well located close to the surface water.	YES NO_X_
4.	Has the release occurred in the last 30 days?	YES NO <u>_X_</u>
5.	Has free product been detected at the site?	YES NO <u>_X_</u>
6.	Is sand or gravel aquifer impacted which is tapped by water Wells within or potentially within 500 feet from the edge of the plume or does impacted soil overlie a karsted limestone or fractured bedrock? If YES, explain:	YES NO <u>_X_</u>

If you answered YES to any of questions 1 through 6 above describe below the actions taken to date to reduce or eliminate the risk posed by the release.

Section 2: Site and Release Information

2.1 Describe the land use and pertinent geographic features within 1000 feet of the site.

Land around this site is used as a golf course.

Table 1.

Provide the following for all tanks that have been at the site:

fank#	UST or AST	Capacity	Contents	Age	Status*	Condition
1	UST	350 GAL	Gasoline	UNK	Removed 4/24/90	Good condition with no visible ruptures
2	UST	265 GAL	UNK	UNK	Removed 4/24/90	Rust, corrosion, 9 puncture holes & collapsed along both sides upon removal

*Indicate: removed (date), abandoned in place (date), or currently used

2.2 Describe the status of the other components of the tank system(s), (i.e., piping and dispensers) for those tanks listed above.

Dispensers were removed, piping was left in place.

2.3	Identify and describe the source or suspected source(s) of the	release.
	Holes in the tanks due to corrosion, overfills and spills.	
2.4	What was the volume of the release? (if known): <u>Unknown</u>	gallons
2.5	When did the release occur? (if known): Unknown	
Sectio	n 3: Excavated Soil Information	
3.1	Was soil excavated for off-site treatment? Y	ES_X_ NO
	hen complete the fact sheet #3.7 "Excavation Report Workshee Sites" and include it as an appendix.	t for Petroleum
Date exc	cavated: 4/24/90, 5/3/90, 5/8/90	
Volume	Removed: 396 cubic yards	
Name a	cate soil treatment type: _X land treatment thermal treatment composting/biopiling other (
Sectio	on 4: Extent and Magnitude of Soil Contamination	1
4.1	Were soil borings conducted in or immediately adjacent to All likely source areas (e.g., UST basins, AST areas, piping, dispensers, remote fill pipes, known spill areas?)	YES <u>X</u> NO
4.2	To adequately define the vertical extent of contamination, soil borings should be completed at least five feet below the deepest measurable (field screening and visual observation) Contamination, whichever is deeper. Were all soil borings completed to the required depth?	YES <u>X</u> NO
4.3	To adequately evaluate site stratigraphy at least one boring Should be completed 20 feet below the water table, unless a	YES NO_X_

confining layer is present. Was this done?

2

If you answered NO to any of the three previous questions, explain why the borings were not conducted in the required locations or to the required depths (see fact sheet #3.19 "Soil and Ground Water Investigations Performed During Remedial Investigations" regarding exceptions and MPCA approval for depth of drilling):

Compacted silty clays were encountered approximately 9 feet below the water table. This interval is thought to be a semi-permeable horizon; no PID readings above 8.0 ppm were registered below 10 feet beneath the ground surface.

4.4 Indicate the drilling method: X hollow-stem auger

____ sonic drilling X__ push probes ____ other (_____

Note: contact MPCA staff hydro before use of flight augers

Table 2.

Complete the following table indicating jar headspace results (in ppm) for soil samples from soil borings.

ASTM soil Depth Soil Boring										
classification	(ft)	1	2	3	4	5	6	7	8	GP-1
CL/OH	0-2							15.4	3.5	0.0
CL/ML	2-4			2.4	48	4.9	5.6	1.8	2.7	0.0
CL	4-6				760	5.5	5.4	1.6	2.2	0.0
CL/ML	6-8		0.8		10.3				2.1	0.0
ML	8-10		4.1			3.7	5.0	2.2		0.0
SM	10-12				6.5	4.0	5.6	2.8	2.1	0.0
SM/GM	12-14				7.7			2.5		0.0
CL	14-16				6.3			2.2		0.0
GM	16-18									0.0

Notes:(type of PID/FID)

PID type is a photovac microtip MP-1000 with a 10.2 eV lamp, calibrated with a 106 ppm factory recommended span gas isobutylene.

<u>Table 3.</u>

Indicate the laboratory analytical results for soil samples in mg/kg.

						· ·	
Well/Boring Depth (ft)	Date Analyzed	Benzene	Toluene	Ethyl benzene	Xylene	GRO	DRO
SB-1/6-8'	12/21/94	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-2/10-12'	12/22/94	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-3/6-8'	12/22/94	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-3/14-16'	12/22/94	0.83	<0.050	<0.050	<0.050	<10.0	<10.0
SB-4/4.5-6.5'	4/9/95	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-4/14.5-16.5'	4/9/95	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-5/7-9'	4/9/95	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-6/7-9'	4/9/95	<0.050	<0.050	<0.050	<0.050	<10.0	<10.0
SB-7/8-10'	5/14/96	<0.025	<0.025	<0.025	0.032	<2.8	<4.2

Well/Boring Depth (ft)	Date Analyzed	Benzene	Toluene	Ethyl benzene	Xylene	GRO	DRO
SB-7/15-17'	5/14/96	<0.025	<0.025	<0.025	<0.025	<3.0	<4.2
SB-8/5-7'	5/14/96	<0.025	<0.025	<0.025	<0.025	⊲.3	<4.6
GP-1 8'	12/16/97	<0.025	<0.025	<0.025	⊲0.025	<3.0 ⁻	<4.5
GP-1 14'	12/16/97	<0.025	<0.025	<0.025	<0.025	<4.1	<6.3

Notes: (use less than symbols to show detection limits)

Table 4.

Indicate other notable contaminants (either petroleum or non-petroleum derived) detected in soil samples. Indicate contaminant and list in reported units mg/kg.

Well/Boring, Depth (ft)	Date Analyzed	Lead mg/kg
SB-7/8-10'	5/14/96	7.2
SB-7/15-17'	5/14/96	4.3
SB-8/5-7'	5/14/96	5.8

4.5 If any non-petroleum compounds were detected list them below and identify possible sources of these compounds.

Lead was detected at concentrations ranging from 4.3 to 7.2 mg/kg, which are in the range of natural occurrence.

4.6 Describe the vertical and horizontal extent and magnitude of soil contamination.

The majority of the soil impacted by this release was removed and treated at a land farm facility. Soil borings completed around the former excavation area did not reveal any measurable petroleum constituents except in SB-3 at 14-16 feet. At this interval, 0.83 ppm benzene was detected.

Section 5: Aquifer Characteristics/Ground Water Contamination Assessment

5.1 Indicate the hydraulic conductivity and the method used to determine it. Attach all supporting information for the determination in the Methodologies appendix:

<u>10⁻³ - 10⁻⁵</u> cm/sec X estimate from reference (Fetters - 1988) ______ slug test

_____ permeability test

_____ Hazen approximation from grain-size distribution

5.2 Indicate the thickness of the aquifer. If the investigation does not provide enough information to determine the aquifer thickness, assume the aquifer is greater than 20 feet thick:

____ less than 10 feet
____ between 10 and 20 feet
____ 20 feet or greater

5.3 Describe in detail the geology underlying the site including confining layers, bedrock formations and the lateral extent of these formations:

Soil at this site extends to a depth of at least 28 feet in places. Silt, clay, and silty clay are the predominant soil types to a depth of approximately 10 - 20 feet. Sand and silty sand was encountered beneath the clay and silt, with lenses of silt and clay present.

Bedrock exposures occur at the golf course, although refusal was not encountered in any of the borings. Bedrock is basalt from the North Shore Volcanic Group. This unit is locally a resource aquifer when fracture density is adequate to support ground water production. Otherwise, bedrock is an impermeable underlying horizon.

The impacted aquifer or the aquifer that is likely to be impacted at the site is considered a resource aquifer if one of the following situations exist:

- The aquifer is a current water supply source.
- The water bearing unit has a hydraulic conductivity greater than 1 X 10⁻² cm/sec and a minimum thickness of 10 feet.
- The water bearing unit has a hydraulic conductivity between 1 X 10⁻⁴ cm/sec and 1 X 10⁻² cm/sec <u>and</u> a minimum thickness of 20 feet.
- The water bearing unit has a hydraulic conductivity less than 1 X 10⁻⁴ cm/sec and no other viable source of water supply is available. (Bedrock may be considered a resource aquifer if it is the only water supply available.)
- 5.4 Based on the aquifer characteristics and water supply availability, is the aquifer at the site a resource aquifer? YES_X_NO____
- 5.5 If other water supplies are available, explain.

The site is served by municipal water.

5.6 Are there any other reasons the impacted aquifer should not be considered a resource aquifer?

No

Table 5.

	Soil Boring												
	1	2	3	4	5	6	7	8	9	10			
Water level depth, (ft)	6.5	11.0)	7.0	8.5	9	.0	8.5	10	0.0	5.5	8	

Indicate the water level measured in all of the soil horings

NOIES:

YES_X_ NO___ Is contaminated soil in contact with ground water? 5.7

If YES or if ground water contamination appears likely then complete tables 6 and 7 below.

Table 6.

Indicate the laboratory analytical results for water samples collected from the borings, temporary wells or push probes.

Well/Boring Number	Date Analyzed	Benzene	Toluene	Ethyl benzene	Xylene	GRO	DRO
GP-1	12/18/97	<1.0	<1.0	<1.0	<2.0	<50	

Notes: Values in ppb

Table 7.

Indicate other notable contaminants (either petroleum or non-petroleum derived) detected in water samples collected from the borings, temporary wells or push probes. Indicate contaminant and report in units of ug/l (ppb).

Well/Boring Number	Date Analyzed			
				i i

Notes: Other analyses were not conducted.

- 5.8 If any non-petroleum compounds were detected list them below and indicate whether they exceed the HRLs. Also, identify possible sources of these compounds.
- 5.9 If contaminated soil is not in contact with ground water, feet what is the distance separating the deepest contamination from the surface of the water table? Was this distance measured during site activities, referenced from geologic information, or estimated based on professional opinion during a site visit?

Not applicable.

5.10 Describe observations of any evidence of a fluctuating water table and a seasonal high water table (e.g., mottling). Also, from other sources of information describe the range of natural water table fluctuations in the area.

Fluctuation of ground water appears to be approximately 4 feet based on water level measurements in the monitoring wells.

5.11 In your judgement, is there a sufficient distance separating YES____NO_X___ The petroleum contaminated soil (or an impacted non-resource aquifer) from the underlying resource aquifer to prevent petroleum contamination of the resource aquifer? Please explain in detail. In your explanation, consider the data and information of this section as well as the nature of the petroleum release (i.e., volume, when it occurred, petroleum product).

A resource aquifer has been impacted.

Additional Ground Water Investigation

Complete Section 6 and Section 7 only if: 1) a resource aquifer has been impacted at or above Minnesota Department of Health Risk Limits (HRLs), 2) a resource aquifer has been impacted below the HRLs, but the levels are likely to reach the HRLs, or 3) there is an insufficient distance separating the petroleum contaminated soil (or an impacted non-resource aquifer) from the underlying resource aquifer. Regardless of whether you are submitting a Limited Site Investigation or a full RI, all sections following Section 7 must be completed.

Section 6. Extent and Magnitude of Groundwater Contamination

Table 8.

Monitoring well construction.

Well Number	Unique Well Number	Date Installed	Relative Surface Elevation (ft.)	Riser Height Above Grade (ft).	Bottom of Well (Elevation) ft.	Screen Interval (Elevation) ft.
MW-I	559216	3/27/95	99.31	1.56	8 0.79	90.79 - 80.79
MW-2	559217	3/28/95	95.96	2.14	81.13	88.13 - 81.13
MW-3	559218	3/28/95 .	96.34	2.27	84.21	91.21 - 84.21
MW-4	567885	4/29/96	100.88	2.78	86.96	91.96 - 86.96
MW-5	567886	4/29/96	94.25	3.18	81.22	88.22 - 81.22

Notes: (location and elevation of benchmark)

(Local) Garage door slab used as bench mark, assumed 100 feet in elevation.

<u>Table 9.</u>

Water table summary.

Well Number	Date	Depth of Water from Top of Casing (ft.)	Product Thickness	Depth of Water Below Grade (ft.)	Relative Groundwater Elevation (ft.)
MW-1	4/26/95	2.69		1.13	98.18
	8/11/95	3.99		2.43	96.88
	5/3/96	3.04		1.48	97.83
	8/20/96	3.83		2.27	97.04
	12/9/96	4.40		2.84	96.47
	12/15/97	7.66		6.10	93.21
MW-2	4/26/95	1.17		* 0.97	96.93
	8/11/95	2.01		* 0.13	96.09
	5/3/96	1.77		* 0.37	96.33
	8/20/96	2.25		0.11	95.85
	12/9/96	3.64		1.50	94.46
	12/15/97	4.42		2.28	93.68
MW-3	4/26/95	2.21	1	* 0.06	96.4
	8/11/95	3.64		1.37	94.97
	5/3/96	2.77		0.50	95.84
	8/20/96	4.15		1.88	94.46
	12/9/96	4.85		2.58	93.76
	12/15/97	5.91		3.64	92.70
MW-4	5/3/96	4.70		1.94	98.94
	8/20/96	6.28		3.52	97.36
	12/9/96	6.48		3.72	97.16
	12/15/97	8.09		5.33	95.55
MW-5	5/3/96	3.62		0.44	93.81
	8/20/96	4.44		1.26	92.99
	12/9/96	4.84		1.66	92.59
	12/15/97	5.62		2.44	91.81

Notes: (GW above/below screen, etc.), * = Height above grade.

6.1 Were any deep monitoring wells completed at the site? YES____NO_X____ If YES, which are deep wells?

Before a deep well is installed contact the MPCA project hydrologist for guidance on its necessity and placement. A deep monitoring well may be necessary if 1) contamination exist more than 10 feet below the water table or 2) the impacted aquifer is a resource aquifer or is hydraulically connected to a resource aquifer presently utilized by a water supply well located within 500 feet of the site.

Provide estimates of the following additional aquifer parameters:

Horizontal Gradient (dh/dl):	0.03
Vertical Gradient (dv/dl):	
Porosity:	30%
Flow direction:	Southeast

Hydraulic Conductivity (K)	10-5	m/s
Pore velocity:	31.5	meters/year

<u>Table 10.</u>

All ground water monitoring data should be collected from a minimum of two quarterly sampling events.

Indicate the laboratory	analytical results	for water samples.	

nuncate	ne inbuintor	y amaiy cicar	Courts IVI	water sample				
Well #	Date	Benzene	Toluene	Ethyl benzene	Xylene	мтве	GRO	DRO
MW-1	4/26/95	0.6	0.8	<0.3	2.8	<5.0	<100.0	150
	8/11/95	<5.0	<5.0	<5.0	<5.0	<1.0	<100.0	120.0
	5/3/96	<0.6	<1.0	<1.0	<1.0	NA	<50.0	<100.0
	8/20/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/9/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/18/97	<1.0	<1.0	<1.0	<2.0	NA	<50.0	<100.0
MW-2	4/26/95	658.0	132.0	209.0	342.0	<50.0	1100.0	320
	8/11/95	370.0	<5.0	120	<5.0	<10.0	7200.0	710.0
	5/3/96	220.0	88	44	91	NA	5700.0	460.0
	8/20/96	270.0	36.0	190.0	371.0	<4.0	5200.0	700.0
	12/9/96	210.0	8.7	37.0	33.4	<4.0	3700.0	530.0
	12/18/97	160.0	5.3	20	4.2	NA	2400	440
MW-3	4/26/95	480.0	0.9	0.9	1.7	<5.0	<100.0	<100.0
	8/11/95	380.0	<5.0	120.0	<5.0	<1.0	7000.0	NA
	5/3/96	<0.6	<1.0	<1.0	<1.0	NA	<50.0	<100.0
	8/20/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/9/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/18/97	<1.0	<1.0	<1.0	<2.0	NA	<50.0	<120.0
MW-4	5/3/96	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	8/20/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/9/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/18/97	<1.0	<1.0	<1.0	<2.0	NA	<50.0	<110.0
MW-5	5/3/96	<1.0	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	8/20/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/9/96	<0.6	<1.0	<1.0	<1.0	<1.0	<50.0	<100.0
	12/18/97	1.1	<1.0	<1.0	<2.0	NA	<50.0	110.0

Notes: (e.g., free product, dry well, units etc.) Note: Units in ug/L

Table 11.

Indicate other notable contaminants (either petroleum or non-petroleum derived) detected in water samples.

Well # Date Analyz		Date Analyzed 1, 2-Dichloroethane			
MW-2	4/26/95	15.8			
	8/11/95	12.0	200.0		
MW-3	8/11/95	4.4			

Notes: units in ppb.

6.2 If any non-petroleum compounds were detected list them below and indicate whether they exceed the HRLs. Also, identify possible sources of these compounds.

1,2-Dichloroethane, has been detected in samples from MW-2 and MW-3 in concentrations which exceed the HRL (4 ppb). This compound is commonly used as an additive to gasoline.

6.3 Is there a clean or nearly clean (below HRLs) downgradient YES____NO_X__ monitoring well located along the longitudinal axis of the contaminated plume? (approximately 20 degrees plus or minus the axis)

A clean water sample was collected from GP-1, which is down gradient of the impacted ground water.

6.4 Is there a worst case well completed through the source area YESX NO_____ of the release?

Monitoring well MW-1

If you have answered NO to any of the above three questions, please explain why a well was not completed in the required location.

Down gradient of MW-2 is golf course fairway and greens. These areas are not accessible for monitoring well placement, however, a clean water sample was obtained from a push probe (GP-1) located in the down gradient direction.

6.5 Provide an estimate of the longitudinal length of the dissolved contaminant plume: _____50_____ feet

6.6 Describe the extent and magnitude of the ground water contamination:

Ground water with detectable petroleum hydrocarbons is limited to the area south of the former UST basin. MW-2 is the only well within the plume, with clean monitoring wells and/or borings defining a 50 - 60 foot radius around MW-2.

Laboratory results show that benzene and 1,2-dichloroethane are the only petroleum constituents above HRLs. Levels of benzene in MW-2 have been steadily declining.

Section 7: Evaluation of natural attenuation

Table 12.

Complete the bioactivity data in the table below. Data should be from two quarterly rounds of sampling. Refer to the fact sheet #3.21 "Assessment of Natural Biodegradation at Petroleum Tank Release Sites" for acceptable methodologies and indicate the chosen method in the Methodologies appendix.

Monitoring Well	Temp. °C	рН	Dissolved oxygen (mg/l)	Nitrate (mg/l)	(Fe II) (mg/l)	(H ₂ S, HS ⁻) (mg/l)
MW-1	10.4	7.75	3.0	0.28	1.45	0.14
MW-2	11.1	7.57	5.2	1.20	>6.0	1.67
MW-3	8.8	7.21	13.5	0.57	>6.0	1.08
MW-4	8.4	7.94	2.8	0.37	1.7	0.17
MW-5	9.5	7.68	4.9	0.69	>6.0	0.97

7.1 Discuss the results of the bioactivity evaluation. Specifically, compare the concentrations of the inorganic parameters inside and outside the plume.

This data does not show characteristics of bioactivity, but the amount of dissolved oxygen is sufficient for bioactivity to occur.

7.2 In your judgment, is natural biodegradation occurring at this site? YES X NO Please explain:

Concentrations of petroleum hydrocarbons are shown to have steadily decreased since ground water monitoring was initiated approximately 2 years ago.

Section 8: Well Receptor Information/Assessment

Include in the appendices of this report: 1) a list of addresses within 500 feet from the edge of the plume and confirmation of status of water supply from the city utility billing department; 2) well logs; and 3) map showing ½ mile radius, 500 foot radius, water supply wells, other potential petroleum sources, and addresses for properties within 500 feet.

No water supply wells were located inside the search area.

<u>Table 13.</u>

Complete the following table for all water supply wells located within 500 feet of the edge of the plume and any municipal or industrial wells found within ½ mile.

Unique Well #	Ground Elevation	Total Depth (ft)	Base of Casing (ft)	Static Elevation	Aquifer	Use	Owner	Distance & Direction from site

Notes:

8.1 Is municipal water available in the area?

YES X NO

- YES_X_NO_
- 8.2 Were all property owners within 500 feet of the nearest edge Of the contaminant plume successfully contacted to determine if water wells are present? If NO, please explain.

There are no other property owners within 500' of the site.

8.3 Discuss the results of the ground water receptor survey and any analytical results from sampling conducted at nearby water wells. Comment on the risks to water supply wells identified within 500 feet from the edge of the plume as well as the risk posed by or to any municipal or industrial wells found within ½ mile. Specifically indicate whether water supply wells identified utilize the impacted aquifer. (Note: an impacted aquifer separated from another aquifer by a clay lens is not considered a separate aquifer.)

No water supply wells were identified within $\frac{1}{2}$ mile of the site.

8.4 Are there any plans for groundwater development in the impacted YES____NO<u>X</u> aquifer within one half mile of the site, or one mile down gradient of the site if the aquifer is fractured? Please give the name, title and phone number of the person that was contacted for this information.

Jeff Anderson Phone 525-3018

Sec	tion 9: Surface Water Risk Assessmer	nt		
9.1	Are there any surface waters or wetlands locate of the site?	ed within 1/4 mile YES <u>X</u> NO		
	If YES, indicate its name: Lester River			
9.2	If surface water is present downgradient of the site, is there a clean YES <u>X</u> NO down gradient soil boring or monitoring well located between the site and the surface water?			
	If NO, we assume that contamination discharges to surface water. Therefore, complete the following information:			
	Name of receiving water:			
	Plume width, (W):	feet		
	Plume thickness, (H):	feet		
	Hydraulic conductivity, (K):	gal/day/ft ²		
	Horizontal gradient, (dh/dl):	(unitless)		
	Discharge, (Q) = H*W*K*(dh/dl)/1440	gal/min		

If YES, identify them and indicate the distance to these features and discuss the contamination risk potential.

The Lester River is approximately 500 feet away from the release. MW-3 is located between the former tank basin and the river. Soil and water samples collected from MW-3 had no detectable petroleum constituents.

Section 10: Vapor Risk Assessment/Survey

- 10.1 Is there a history of vapor impacts in the vicinity of the site? YES____NO_X____ If YES, describe:
- 10.2Is there any indication that free product or highlyYES____NO__X__contaminated groundwater may be traveling offsite
within the utility corridors? If YES, have they been
investigated with borings or push probes?YES___NO__X__

10.3 Discuss the potential for vapor migration/accumulation near the site. In your discussion consider: soil types, product type, presence and distribution of free product or high concentrations of dissolved product. Also, compare the depth of contamination with the location of underground utility lines, location and depth of storm and sanitary sewers and location of nearby basements.

> Due to the limited amount and concentration of petroleum constituents remaining at the site, it is unlikely that any significant migration or accumulation of vapors will occur. The soils are clay rich, and the site is remote enough that utility corridors are not a concern.

If the vapor risk assessment indicated a risk of vapor impacts to buildings or utilities, complete the following table with vapor monitoring data collected. Location numbers should be mapped on an accompanying figure of the surveyed area.

Table 14.

Location #	Date	PID reading (ppm)	Percent of the LEL

10.4 Describe and interpret the results of the vapor survey.

Section 11: Discussion

11.1 Discuss the risks associated with the remaining soil contamination?

Most of the impacted soils were excavated and land farmed. The remaining soil containing petroleum hydrocarbons likely will remain a source of ground water impacts.

11.2 Discuss the risks associated with the impacted ground water?

Petroleum constituents in the ground water contamination appear to be confined to the area directly down gradient of the source. Peripheral wells do not have detectable amounts of petroleum constituents, but benzene concentrations in MW-2 remain above HRLs for this compound. Benzene concentrations have declined from 658 ppb to 160 ppb in MW-2. No water supply wells are present in this area and the plume is not discharging to surface water.

11.3 Discuss other concerns not mentioned above:

Section 12: Conclusions and Recommendations

Recommendation for site:

<u>X</u> site closure

_____ additional vapor monitoring _____ additional ground water monitoring _____ active cleanup

The recommendation above should be based on fact sheet #3.1 "Leaking Underground Storage Tank Investigation and Cleanup Policy."

Describe below how you applied the policy to support your recommendation.

The hydrocarbon plume is less than 200 feet long, hydrocarbon concentration has been declining, additional migration of hydrocarbons has not been observed, and drinking water resources or surface water are not at risk of being impacted.

If additional monitoring is recommended, indicate the proposed monitoring schedule and frequency:

None.

If active cleanup is proposed then MPCA staff will review this remedial investigation report at a higher than normal priority to determine if active cleanup is required. We will respond with either a request for proposal for additional monitoring or a corrective action design report. Please indicate below what cleanup technology you are considering at this time.

None.

Section 13: Required Figures

Indi	cate attached figures:	
<u>_X</u> _	Figure I, Ia:	Site location map (<i>approximate scale is not acceptable</i>) and a large scale site map show all potential receptors within 300 feet of the site. The large scale site map should show those properties with basements and wells.
<u> X </u>	Figure 2, 2a, 2b, etc.:	One or more site map showing: structures; all past and present petroleum storage tanks, piping, and dispensers; extent of soil excavation; boring and well locations (including any drinking water wells on site); horizontal extent of soil contamination; horizontal extent of ground water contamination; and location of end points for all geologic cross sections.
<u>_X</u> _	Figure 3, 3a:	Ground water gradient contour maps (for sites with monitoring wells).
<u>_X</u>	Figure 4	Well receptor survey map showing ½ mile radius, 500 foot radius, water supply wells, other potential sources of contamination.
	Figure 5:	Vapor survey map showing utilities and buildings with basements and monitoring locations (if a survey was required).
<u>_X</u>	Figure 6:	Geologic cross sections.

1

Section 14: Appendices

Indicate attached appendices.

<u> X </u>	Appendix A	Excavation Report Worksheet for Petroleum Release Sites.
<u>_x</u>	Appendix B	Laboratory analytical reports for soil and ground water.
<u>_X</u>	Appendix C	Methodologies and procedures, including field screening of soil, other field analyses, soil boring, soil sampling, well installation, and water sampling.
<u> X </u>	Appendix D	Geologic logs for each well or boring using attached template.
<u> </u>	Appendix E	Well construction diagrams and copies of the Minnesota Department of Health Well Record using attached template.
	Appendix F	Copies of water supply well logs with legible unique numbers. (No wells were located in the search area.)
	Appendix G	A list of addresses within 500 feet from the edge of the plume and confirmation of status of water supply from the city utility billing department. (No residences in the area.)

Section 15: Consultant (or other) information

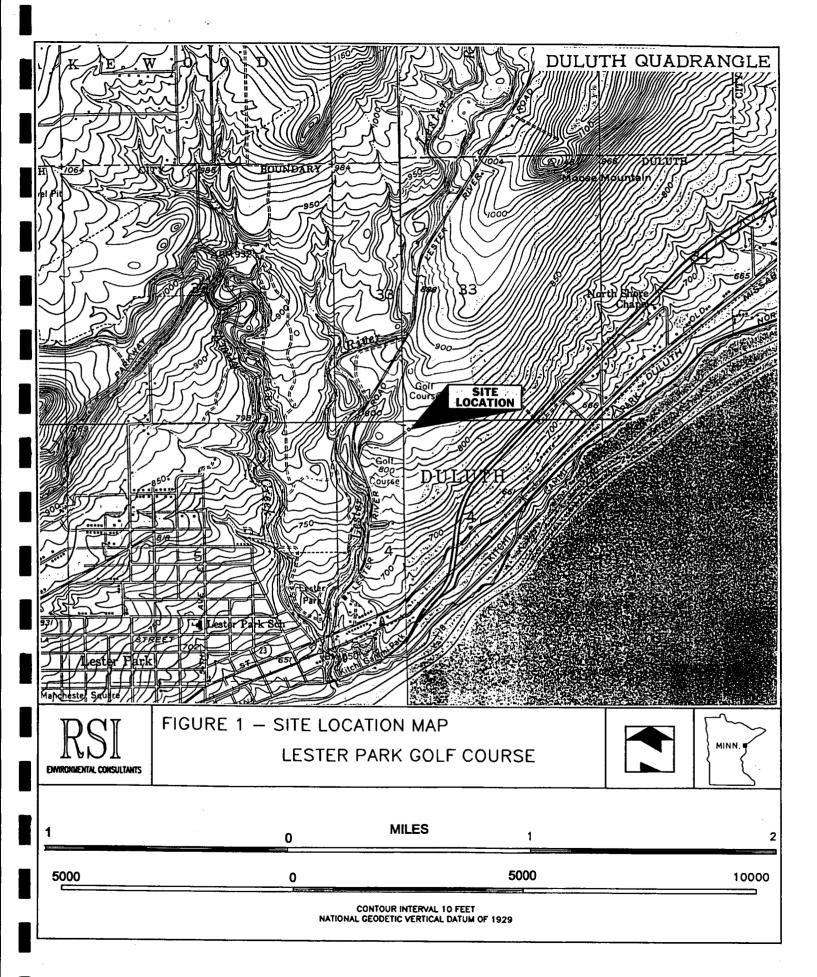
By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leaksite. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in reduction of reimbursement awards. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leaksite that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (1994) or Minn. Rules 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

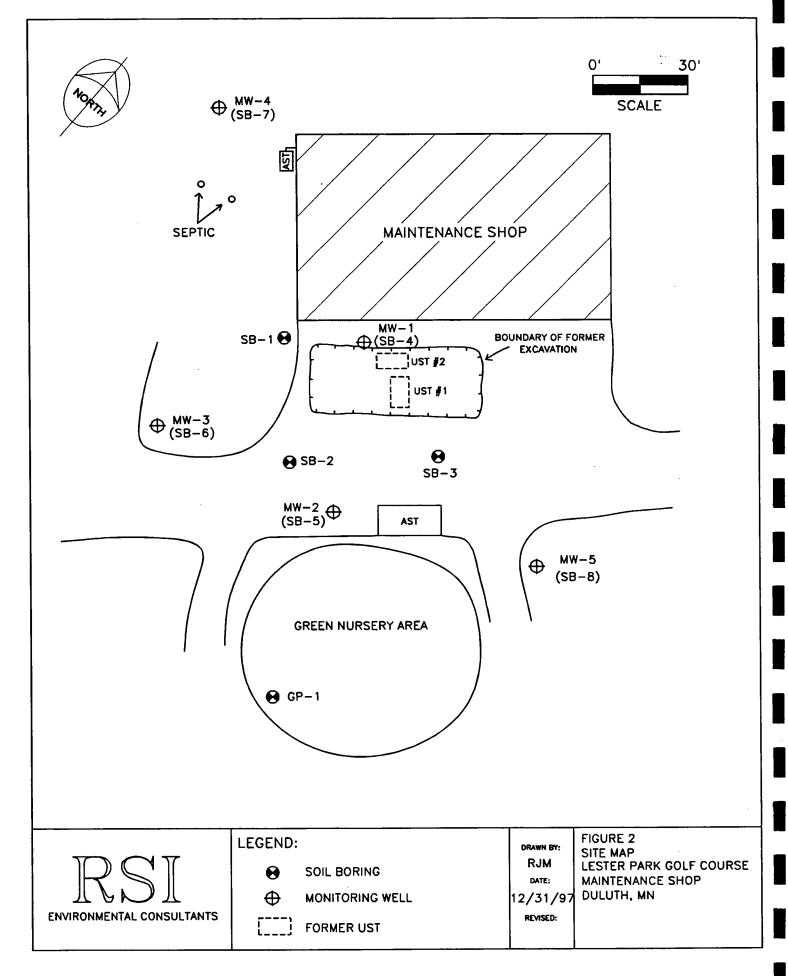
Name and Title:	Signature:	Date Signed:
Guy M. Partch Hydrogeologist		
Jon M. Aspie Project Manager/Hydrogeologist		

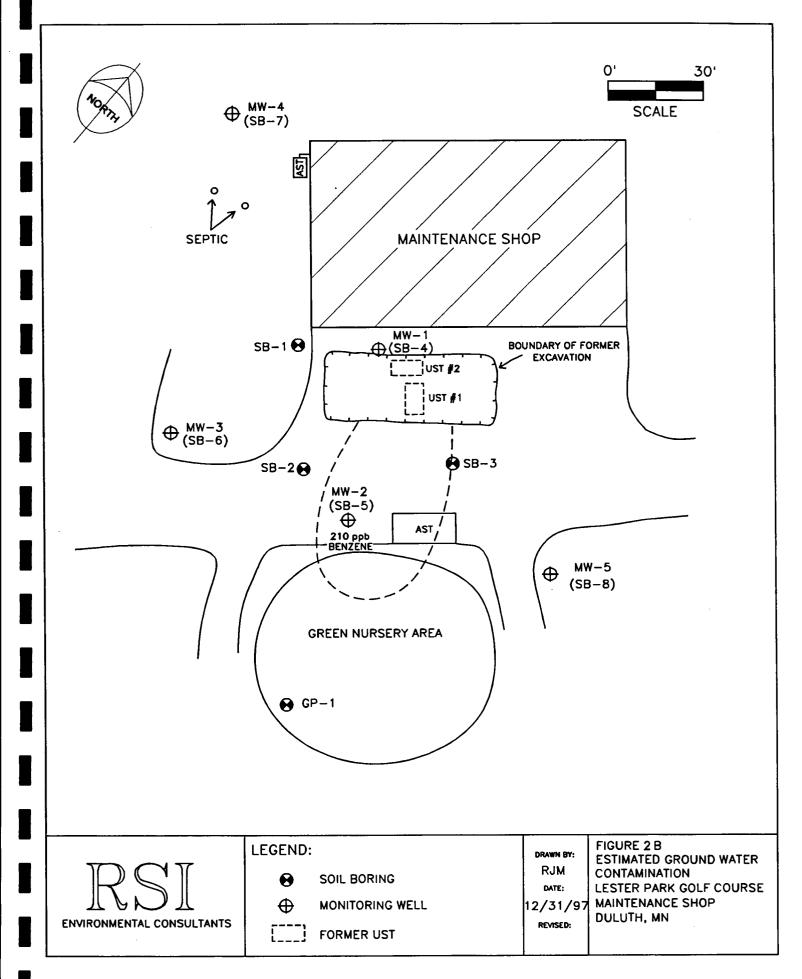
Company & mailing address:

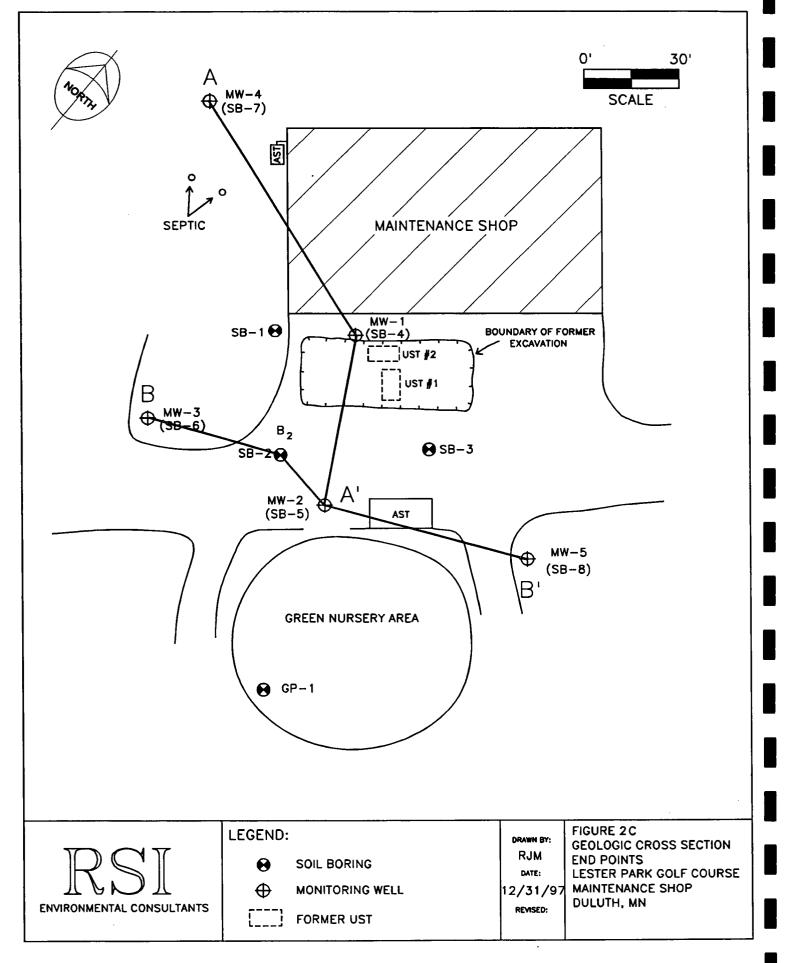
Remediation Services, Inc. 102 South 29th Avenue West, Suite 100 Duluth, Minnesota 55806 (218) 722-6013 (218) 722-6319 - fax

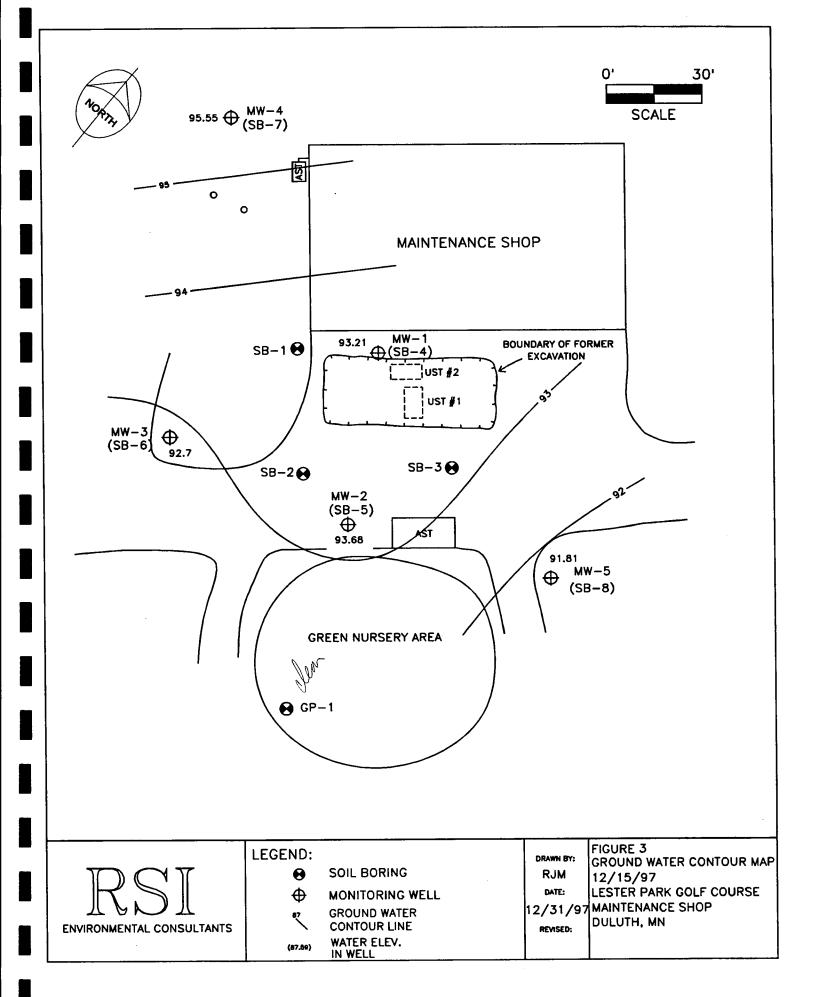
Upon request, this document can be made available in other formats, including Braille, large print and audio tape. TTY users call 612/282-5332 or Greater Minnesota 1-800-657-3864.

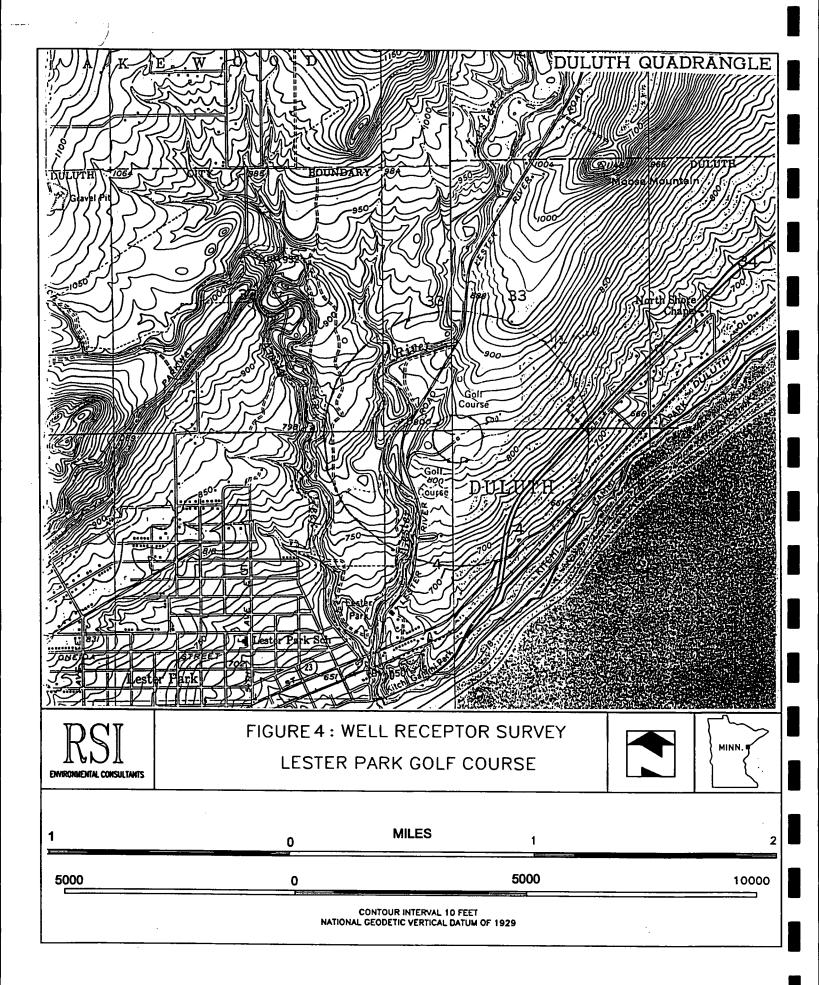




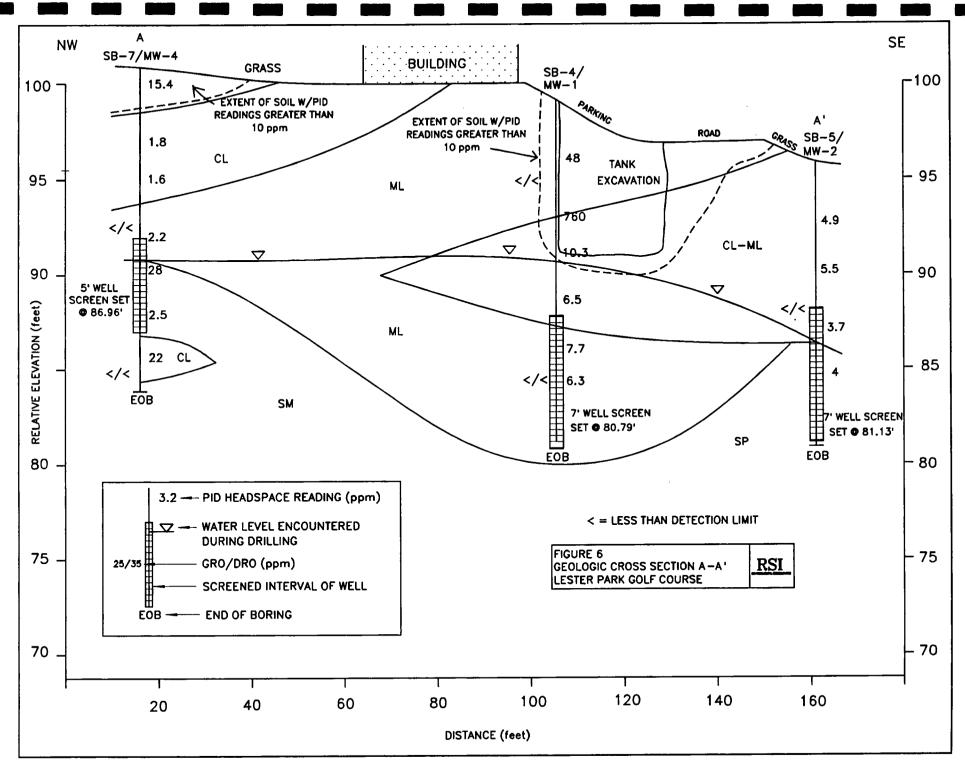


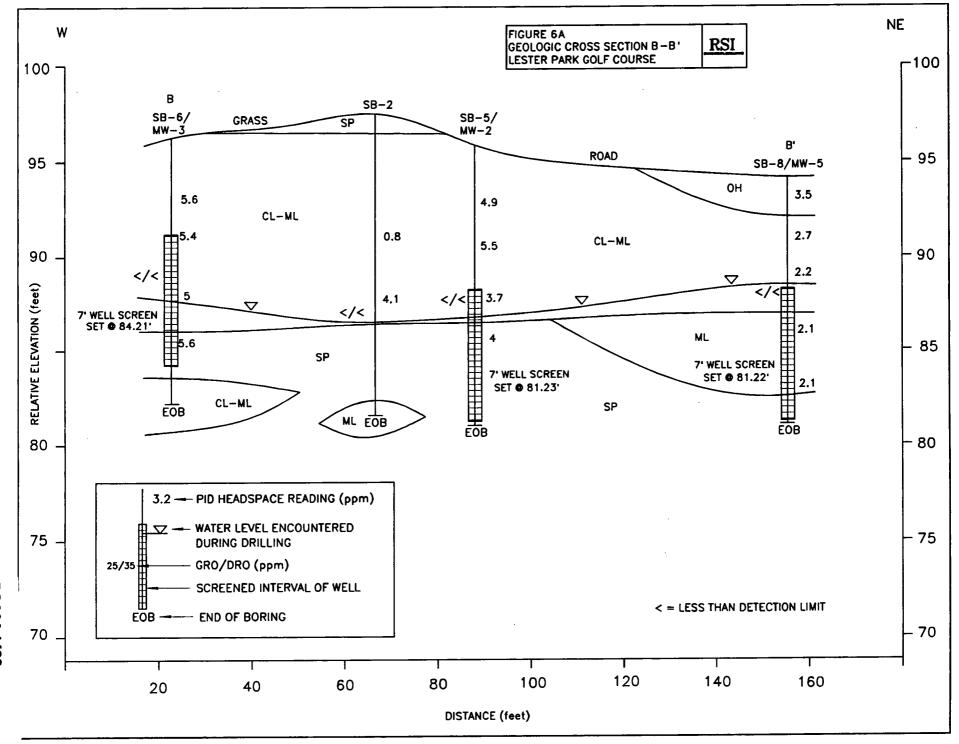






26





SINCE 1972

TESTING inc.

1301 NORTH THIRD STREET ■ SUPERIOR. WISCONSIN 54880 FAX # 715-392-7163 ■ (715) 392-7114

July 26, 1990 TPT# 91-90E

TWIN PO

City of Duluth Administrative Services 313 City Hall Duluth, Minnesota 55802

Attn: Mr. Robert Troolin

Re: Excavation Report, City of Duluth Lester Park Golf Course Maintenance Shop MPCA ID# 5358

Dear Mr. Troolin,

Enclosed you will find a report for the environmental monitoring conducted during the excavation of underground petroleum storage tanks (UST's) and petroleum contaminated soils from April 24 through May 7, 1990 at the Lester Park Golf Course Maintenance Shop. The report consists of a Minnesota Pollution Control Agency (MPCA) "Underground Storage Tank Removal Information Form" and an Excavation Report.

The work performed by Twin Ports Testing, Inc. (TPT) consisted of onsite observations, soil vapor screening, sampling of soil for laboratory analyses and compilation of data for this report. UST removal, soil excavation and soil treatment have been conducted by Anderson Sand and Gravel and Demolition of Saginaw, Minnesota. Laboratory analyses were conducted by Serco Laboratories of St. Paul, Minnesota.

Soil vapor screening and laboratory analyses of soil samples collected from the final excavation indicated petroleum contamination remains in soils at the base and walls of the excavation. The base of the excavation coincides with the depth of groundwater indicating that groundwater has been impacted. The lateral limits of contamination were not reached by excavation due to constraints by utilities, the road and the building. The extent of contamination at and below the watertable is unknown.

It is important to note that recent guidelines published by the MPCA (April and May 1990), state that a Remedial Investigation (RI) is necessary to assess closure of tank release sites if soil contamination exists above the soil vapor action levels of 10 parts per million (ppm) and/or if laboratory results from soil samples taken from the base or sidewalls of the excavation are greater than 50 ppm total petroleum hydrocarbons. An RI is required if the release has affected groundwater.

We have recommended that soil borings be conducted to determine the extent and magnitude of soil and groundwater contamination at the site. The results of the soil boring survey would be used to determine if further RI work or cleanup action is necessary. Upon completion of the investigation, an RI report should be completed which can be submitted to the MPCA for review along with this Excavation Report.

Upon your request, TPT will produce a proposal for an RI including a work plan and cost estimates for onsite investigative work, comprehensive reporting and a Corrective Action Design (CAD).

We would like to thank you for allowing us to be of service to you on this important project. If you have any questions concerning this report or a proposal for further investigative work, please feel free to call us anytime. We look forward to hearing from and working with you in the near future.

Sincerely,

10h

Rick J. Palm, Geologist Twin Ports Testing, Inc.

RJP:sk

TABLE OF CONTENTS

<u>Content</u>	<u>s</u>		Page					
	Underground St	torage Tank Removal Information Form	. 1					
	Location		. 2					
	Background Infe	ormation	. 2					
	Site Geology.		. 2					
	Surface Expres	sions	. 3					
	Surface Materia	al	-					
		Cess						
		untered						
		bservations						
		ocedures	. –					
			-					
		scription of Tanks						
	Handling of Contaminated Soils							
		· · · · · · · · · · · · · · · · · · ·	•					
		ent						
		•••••••••••••••••••••••••••••••••••••••	•					
		ons	_					
Figures			. 10					
g	Figure 1	Site Location Map						
	Figure 2	Soil Borings Data and Well Sites						
	Figure 3	Maintenance Shop Site Map						
	Figure 4	Excavation of Tanks #1 & #2						
	Figure 5	Vapor Headspace Readings Initial Excavation						
	Figure 6	Excavation Showing Exploration Trenches						
	Figure 7	Final Excavation and Vapor Readings						

Figure 8 Soils Analysis Results Tested Hydrocarbon

Tables

•

1

 Table 1.
 Summary of Headspace Analysis

Table 2. Summary of Soil Laboratory Analysis

Appendix A:

Laboratory Analysis Report No. 1131

Chain of Custody Record

Flash Point Report, Fluid Sample #1

1301 NORTH THIRD STREET # SUPERIOR, WISCONSIN 54880 -FAX # 715-392-7163 # (715) 392-7114

Underground Storage Tank Removal Information Form

SINCE 1972 SINCE 1972 STESTING inc. This form is r the obser to re This form is provided to tank owners and operators, fire department representatives and others to assist the observation of underground storage tank removals. It is the legal duty of the tank owner and operator to report any evidence of petroleum contamination to the Minnesota Pollution Control Agency.

Jack Granquist Date: April 24, 1990 Time:

Signature:

Organization: Twin Ports Testing, Inc. Position: Environmental Scientist Address: 1301 N. Third Street, Superior, Wisconsin 54880 Phone: (715) 392-7114 Fax: (715) 392-7163

TANK INFORMATION

Tank Owner Name: City of Duluth MPCA ID#: 5358 Contact Person: Bob Troolin Title: **Risk Management Specialist** Tank Location: Lester Park Golf Course Maintenance Shop Address: 1860 Lester River Road Duluth, Minnesota 55804 County: St Louis Phone: (218) 723-3291 Excav. Contractor: Anderson Sand, Gravel, and Demolition 4597 Old Hwy 53 Saginaw, MN 55779

TANK	CONDITION <u>& SIZE</u>	CONTENTS (PRODUCT)	VISIBLE CORROSION	VISIBLE LEAKAGE	SOIL CONTAMINATION
#1 #2	350 gallon 265 gallon	Gasoline Unknown	Yes	Yes	Yes
π 6	205 yalion	UNKNOWN	Yes	No	Yes

SOIL CONDITIONS WITHIN EXCAVATION

1.	Detectable petroleum contamination was found?	Yes
2.	Petroleum Odors (moderate)	Yes
3.	Visible petroleum product in soil?	Yes
4.	Sheen on water mixed with soil?	Yes
5.	Sheen on ground water in excavation?	Yes
6.	Petroleum product on ground water in excavation?	Yes
7.	Vapor detection instrument used (HNu PI-101)	Yes
8.	Soil samples taken from under tank(s)	Yes
9.	Soil type: Moist Silty-Sandy Clay with Gravel (Glacial Till)	165

Pictures taken: no 10.

11. Tank disposed by: Cliff Anderson Where: Anderson Shop Location

The Minnesota Pollution Control Agency (MPCA) must be notified immediately of any evidence of petroleum contamination.

24 Hour Emergency or Spill Number:	612-296-8100
Business Hours:	612-296-7235 or
	612-296-7709

Excavation Report for City of Duluth, Lester Park Golf Course

Page 1 of 10

PCA04-1433

TPT Job #: 91-90E

EXCAVATION REPORT

Location:

Background Information:

Lester Park Golf Course Maintenance Shop, 1860 Lester River Road, Duluth, Minnesota 55804. The location is shown in Figure 1.

The maintenance shop and surrounding area serves as the center of activity for equipment maintenance, grounds keeping, and irrigation for the Lester Park Golf Course. The UST's were used to refuel light-duty vehicles and gasoline powered golf carts.

The UST had been in service up until the Spring of 1989. During the Winter of 1988-89, it had been left half full of gasoline. When pumped early in the season the tank contained a large amount of water. It was then pumped dry and left in the ground until it was removed during the Spring of 1990 (described below).

The irrigation source for the course sprinkler system comes from a large reservoir pond located north and west of the shop area (see Figure #3). This reservoir is filled from five wells surrounding the pond. These wells are reported to be an average of 540 feet deep, drilled into bedrock. Prior to the drilling of these source wells the irrigation system was fed by a 6 inch City of Duluth water main that enters the pond at the southwest side. Although not being utilized because of the new well system, this water source is still available. The irrigation system distributes water from the reservoir pond, pumping from a pump station (northwest corner of the pond near well #3) through underground pipes that pass close to the UST removal site. All surface ponds are lined with an 18 inch base of clay that prevents water loss into native soils and also reduces the interaction of ground water with the pond water.

The area just south of the UST's and maintenance shop road is utilized for growing nursery grasses for green and fairway repair. Course maintenance foreman, Glen Oliver, stated that there has never been a problem with the productivity of the sites and that if there was petroleum product in contact with the seed grasses, it would be readily apparent.

The Lester River Golf Course is located over bedrock identified as the North Shore Volcanic Group (geologic age 1,100 million years) that consists of basalt and related rocks of igneous origin.

The bedrock is overlain by glacial sediments deposited in the Pleistocene Epoch, late Wisconsin Age. These sediments are associated with the Nickerson Moraine Association and consist primarily of clayey till (locally calcareous) resulting from the incorporation of proglacial lake sediments. More specifically at

Excavation Report for City of Duluth, Lester Park Golf Course

Page 2 of 10

Site Geology:

Lester Park, the sediments are elements of ground moraine including clayey till that is an unsorted and unstratified mixture of all sizes of rock material deposited directly by glacial ice with little or no reworking by water.

The overall golf course strata has been investigated using soil boring analysis. This work was conducted in conjunction with golf course improvements and expansion by Richard M. Phelps, Golf Course Architect, P.O. Box 3295 Evergreen, Colorado 80439. A portion of these data are shown in Figure #2, which depicts soil boring sites and strata identified at each location between the ground surface and bedrock. Information was provided to TPT by the contractor, Park Construction Co.

Excavation and Tank Removal took place on Tuesday April 24, 1990. Further excavation of contaminated soils continued on Thursday May 3rd, Friday May 4th, and Monday May 7th.

On April 24 it was sunny and warm with rain showers over the noon hour and heavy rains that evening. From the time of tank removal and 9 days later when excavation of contaminated soils was resumed there were accumulations of rain. The weather conditions after the excavation of contaminants resumed (May 3rd) were predominately cool with a lake wind and not much precipitation.

Excavation started at 9:30 AM. The tanks were out of the ground at 10:52 AM. Further excavation of contaminated soils lasted the rest of the day. Excavation on the following days resumed at 8:30 - 9:00 AM and continued until 4:30 - 5:00 PM.

The USTs were located beneath a driveway and parking area for commercial vehicles that gently sloped to the south into a 12" ditch separating the access road from the golf course nursery area.

The surface of the excavation was a packed gravel driveway with a cold mix asphalt ramp for garage door entrance.

The excavation proceeded on 4/24/90 using a Case Backhoe 580E. Material around the UST was excavated, exposing the west side, the top of the UST, and the three underground pipes running to the pump. At this time a second UST, designated as Tank #2, was discovered. The UST had long since been abandoned, and its presence was unknown to the occupants. Both tanks contained fluids assumed to be primarily water. Midway Sewer Service arrived to pump both tanks. 400 gallons of fluid were removed from the site and disposed of at UPC (United Purification Co., Superior, WI). All underground pipes were cut and both tanks were lifted from the excavation by the backhoe operator. A hole was discovered during excavation of Tank #1. Considerable amount of liquid leaked out of the center

Excavation Report for City of Duluth, Lester Park Golf Course

Page 3 of 10

Date:

Weather:

p²⁵2

Time of Excavation:

Surface Expressions:

Surface Material:

Excavation Process:

of the north end of the tank prior to pumping. A visual estimate of the amount of fluid lost in the spill was between 5 and 10 gallons. A sample of the fluid (which had a strong odor of product) was taken for laboratory analysis. The fluid flowed into the excavation and pooled on the west side of Tank #1. A strong petroleum odor was apparent throughout the rest of the day.

Heavy rain showers occurred just before 12:00. The excavation stockpile was pushed back into the hole to prevent collapse of the excavation walls by the storm runoff. After the weather cleared, the material was re-excavated and as much of the contaminated material was removed from the site as possible. Four 12 yard trucks (estimated 48 yards) of material was removed from the site to Anderson Site #4 on 4/24/90. With heavy rains expected that evening, the excavated stockpile was again pushed into the hole to prevent surface contamination from stockpile runoff and the collapse of the excavation walls. Further excavation of contaminants was rescheduled to a later date.

The site excavation was resumed on Thursday, May 3. The excavation had filled up with rainwater and runoff over the interval. A water sample was taken prior to removal of the water. There was no visible sheen on the water surface and no odor. Only small accumulations of cohesive bubbles were scattered on the water surface. Midway Sewer Service arrived and removed 1000 gallons and transported it to WLSSD.

The backhoe operator arrived on site and immediately started to remove material from the hole that had been put back in during the rain. Midway Sewer returned for a second load of 1000 gallons for WLSSD. It was decided to excavate small test trenches surrounding the site in an effort to determine the extent of contamination away from the former tank location without having to dig up the entire area. The small test trenches would not be accidentally contaminated from material within the main excavation. The removal of contaminated material and bringing in of clean backfill continued all day.

Four test trenches were completed during the course of the day. Trenches #1, #2, and #4, located on the west, south, and east of the excavation proved to be contaminated (See Table 1 and Figure #6). Test Trench #3, located due south and across the driveway proved to be free of contamination and consisted entirely of lean clay material. The test trenches were backfilled with the same soil immediately thereafter.

On the following day (May 4) Rick Palm, a TPT geologist visited the site. It appeared that contamination had migrated through a lens of porous reddish brown silty sand. Since the excavation site was located within the busy maintenance area of the open golf course, some decisions had to be made regarding further

Excavation Report for City of Duluth, Lester Park Golf Course

Page 4 of 10

action. The site was tightly confined by the shop building to the north, buried telephone line to the east, the main access driveway and buried telephone line to the south, and drain tile and main course underground irrigation lines to the west (See Figure #4). The conclusion was to scrape away the top clean surface material and stockpile and reuse it for backfill. Excavate to within a reasonable distance from the obstacles, sample, and backfill with clean material. This work proceeded the rest of the day. The site was visited by Dick Olson, a City of Duluth Street Department Supervisor. He requested that no further backfill be hauled in by the contractor, and that any material needed would be provided by the city.

Excavation of contaminants toward the east was resumed on Monday, 5/8/90, at a point 12 feet east of the prior excavation. Excavation started from a new hole in line with Test Trench #4 (see Figure #6). Excavation working back toward the center was done to avoid cross contamination from known contaminated material in the older pit. The top layer was again scraped away down to a layer of wood blocks (reported to be the floor of an old building on site). This top layer tested clean above the wooden blocks and care was taken not to get into known contaminated material. These blocks were excavated along with the contaminated soils. Excavation toward the east continued and samples were taken throughout. Clean native soils were encountered along the east and southeast walls.

The contractor received verbal authorization from Mr. Bob Troolin of the City of Duluth for closure at 12:15 PM and proceeded to clean out the hole at depth and to the southeast until either MPCA limits for clean closure were reached or a recognized structural barrier had been reached. Telephone service was accidentally interrupted when the backhoe operator broke the line at the southeast corner of the excavation. The excavation went as far as possible without disrupting the access areas of the site. All contaminated material was off site and backfilling proceeded at 2:30 PM. TPT personnel left the site when the excavation was 2/3 filled. City of Duluth trucks were hauling in street sweepings from a local site. Leveling off of site and minor parking improvements were to be made before the contractor left the site.

There were three (3) distinct layers of material encountered during the excavation. Each are described below:

Unit 1. Surface material; angular gravel mixed with fines, a high concentration of which are reported to be street sweepings brought in by the City of Duluth Street Maintenance Department. Layer is generally 10-12" thick throughout. Just below this layer in the NW corner of the excavation was a layer of oily wood blocks that were used as the floor for an old structure on site.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 5 of 10

Materials Encountered:

33

Unit 2. Lean red clay with evenly mixed angular gravel embedded in it. Material is hard and compacted.

Unit 3. A reddish brown moist silty sand and day; porous with seams or lenses of gravel encountered (areas of general "bleeding" of fluids back into the excavation). This is the material encountered at the level of the USTs and is the material that contains the high concentrations of product.

The excavation site is down slope from a topographic high point to the north and experiences surface runoff occurring from around the building and the roadways to the north. The supervisor of the maintenance shop reports of historically very muddy conditions over the excavation site during periods of heavy precipitation.

Upon first opening the hole on April 24th, pooling of water in the bottom of the open excavation was observed between 7-8 foot depth and thereafter was assumed to be the water table. After the heavy rain over the first weekend, the hole filled with water to 1.5 feet below the surface, acting as a catch basin. There was also trickling of groundwater from a seam in Unit 3 soils on the northwest corner of the excavation. Water trickling down the side of the excavation was also observed from the north center wall from a depth of 2 feet flowing under the layer of wood blocks and over Unit 2 soils (see background information). This flow of water continued throughout the time the excavation was open.

Soils exposed in the excavation and all materials in the stockpile were observed for evidence of contamination. Soil samples were periodically collected and analyzed in the field according to MPCA guidelines for "Jar Headspace Analytical Screening Procedures." The instrument used in the field was an HNU Model P1-101 organic vapor detector which is calibrated daily to benzene.

During the excavation process, product flowed out of Tank #1 and pooled into the sandy backfill material that it lay in. That material and the silty sand layer (Unit 3) showed very high and consistent organic vapor readings in all directions. The site had an obviously older UST (Tank #2) still in place that was abandoned in place some years earlier. Most samples were taken at 6-7 feet since that was generally considered to be above the water table at the site. The layer above was a very hard clay (Unit 2) and showed little sign of contamination. At depth some clay was encountered but no definite bedding pattern was found, which is typical of glacial till (see Site Geology).

Excavation Report for City of Duluth, Lester Park Golf Course

Page 6 of 10

TWIN PORTS TESTING

Groundwater Observations:

Soil Testing Procedures:

Areas of Contamination:

Laboratory soil samples revealed the presence of gasoline in the area below Tank #1 in the area of the leak described during removal (Table 2, SS-2, 230 ppm). Soil samples, SS-7 and SS-16, indicated the presence of fuel oil at depth and to the south of the tank locations (Figure #8). Those concentrations were strong enough to cover up any gasoline in the sample (Table 2). It is possible that the unknown tank (Tank #2) at one time held fuel oil.

As expected of a maintenance shop area, there is evidence of surface contamination. Incidental spills and overflows occur. There are three above ground petroleum tanks on site. Only the gasoline tank indicated in Figure #4 is close to the excavation. Contaminated surface runoff was observed flowing down the north wall from the top of the clay layer. Another point of interest is the wooden block flooring that looked as though they were treated with a petroleum product that turned them black. It could be creosote or another petroleum coating used for a preservative.

Final vapor analysis readings of the excavation indicate that the east end indicated results below MPCA guidelines (see Figure #7, between 0 and 8 ppm @ 6-7 feet). High readings were predominant on the west side of the excavation and close to the building (see Figure #7). Contamination was associated with Unit 3 soils (sitty sand/glacial till).

The fluid that spilled from Tank #1 was tested by the TPT Chemistry Department and recorded a flashpoint reading of 76 degree F., proving to be very volatile. The leak that occurred during the tank removal was registered with the MPCA and has been assigned Spill #2536. Chris Zadak of the MPCA has been appointed to follow up on the site.

As required by MPCA guidelines, one soil sample was collected from beneath each tank. Also, a sample of the contaminated stockpile and water samples were collected.

Laboratory analysis of soil samples revealed a strong presence of gasoline in the area below Tank #1 and associated with the leak described during its removal. Soil Sample #2 revealed 230 ppm when tested for total hydrocarbons as gasoline taken from a point below Tank #1. Soil samples #7 and #16 indicated the presence of fuel oil at depth and to the south of the tank locations. Concentrations were strong enough to mask the presence of any gasoline in the sample (Table 2).

There were two petroleum storage tanks excavated at the site. Tank #1 was in good condition with no visible ruptures, but was leaking product profusely from one end at the time of removal. The UST was disturbed prior to being pumped dry. It is inconclusive how much fluid leaked out at this time.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 7 of 10

Soil Samples:

. 5

Condition & Description of Tanks:

Tank #2 was in very poor condition and was abandoned at the time of discovery. It contained 22 inches of what appeared to be ground water that was pumped prior to tank removal. Tank #2 had nine (9) puncture holes visible and was collapsed along both sides. This tank had been left in the ground when abandoned. The owners were unaware of its existence at the time of the excavation. The contents were not known at the time of extraction.

Contaminated solls were excavated and hauled to an approved site, Anderson Site #4, on the contractor's property for further treatment by thin spreading, aeration, and addition of organic fertilizer.

Both tanks were removed without much difficulty, except for leakage of fluids from (proving to have a high concentration of product) from Tank #1. The site was excavated in an attempt to dig out of the contamination, but the confines of roadways, structures, and utilitles proved to be a problem. Limits of excavation were defined by the structures and utilities surrounding the site. Disruption of entry/exit on the only road into the Maintenance Shop was avoided.

Contamination on site was identified as gasoline, but also included fuel oil. When questioned on the use of fuel oil, employees related that fuel oil is the source of heat for the maintenance shop. There is also a diesel powered front end loader at the shop. Both use fuel oil from an above ground tank on the west end of the building. However, this does not discount the possibility that the unknown tank could have been an underground fuel oil storage tank. Oil products may have been introduced through the wooden block flooring of the former workshop. Soils with an oily sheen were noted directly beneath this flooring material which was discovered at the west side of the excavation. Laboratory analyses indicated fuel oil contamination in the west side of the excavation.

Migration of contaminants beyond the limits of the excavation in the subsurface was not determined. There was evidence of contaminant movement through the sandy lenses in the Unit 3 type soils. The extent of these lenses beyond the limits of the excavation is unknown.

The soil boring data from Phelps (Figure #2) indicate the silty sand to the north gives way to clay in near surface soils south of the Maintenance Shop. This change in geomorphology seems to follow the Lester River Valley. It might be that the soils closer to the river were deposited in a higher energy environment depositing coarse grained material closer to the river valley. The borings suggest that the subsoils to the south should be primarily clays and would inhibit subsoil migration.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 8 of 10

Handling of Contaminated Soils:

Discussion:

A total of 396 cubic yards of contaminated material was hauled off the site to Anderson #4 Site, and 220 cubic yards of backfill material was brought in from the Anderson Pit with the balance of the clean fill was brought in by the City of Duluth. Once excavation limits were determined, the excavation was backfilled.

The results of soil vapor and laboratory analysis of soil samples indicate that the excavation did not meet MPCA guidelines for clean closure. Authorization for closure of the site came from Bob Troolin, City of Duluth Risk Management Specialist and Project Director after conferring with officials from the MPCA.

Soils contamination is concentrated to the west of the tank locations and close to the building. It seems to be localized in a sandy clay glacial till below an clay layer. All water wells on site are deep and far enough away that it is unlikely that they would be affected by the release. These wells are used for irrigation, not drinking water. The risks to public health and the environment associated with this petroleum release is minimal.

Contaminated soils remain at depth below the Maintenance Shop road and parking lot. The full extent of the contamination remains undetermined at this time.

The nursery areas near the maintenance shop and across the road do not and have not shown any effects of damage due to contaminants from the subsoil. Only limited soil vapors were detected in a test trench dug across the service road to the south.

The excavation was closed due to the proximity of structures and utilities. Further excavation would have disrupted the busy routine of the golf course maintenance activities.

The product that was held in Tank #2 was unknown when it was discovered. It was assumed that it was another gasoline tank for fueling of vehicles. The presence of fuel oil in laboratory samples indicate that the product in Tank #2 might have been #2 fuel oil or diesel fuel.

The former Maintenance Shop floor area was a potential source of surface contamination. Incidental spills and overflows occur in that environment. Contaminated surface runoff was observed flowing down the north wall from the top of the clay layer that underlies the wood blocks. Contamination could be coming directly off the wooden blocks or from spillage over time inside of the old shop. The coating looked like it could be creosote or another petroleum coating used for a preservative.

The site location is at least one-half mile from any residential area and is utilized as a recreational golf course. The wells on site are very deep and are used to feed well-sealed clay lined

Excavation Report for City of Duluth, Lester Park Golf Course

--

Page 9 of 10

Risk Assessment:

Conclusions:

Asc.

ponds that will not mix with the groundwater or be used as drinking water.

A total of 396 cubic yards of contaminated material were hauled off the site to Anderson #4 Site, and 220 cubic yards of backfill material were brought in from the Anderson Pit with the balance of the clean fill brought in by the City of Duluth.

Recommendations:

The contamination at the site presents little risk to residential or commercial water sources in the area. However, the extent of contamination found at the site was not fully determined or cleaned out by the excavation process.

It is recommended that further investigation be conducted to define the extent of soil and groundwater contamination. We recommend soil borings be placed around and down slope from the release site.

This report was completed in June, 1990.

TWIN PORTS TESTING, INC.

Written and Prepared by:

Jack B/Granquist) Environmental Scientist

Reviewed by:

ccl

Rick Palm, Geologist

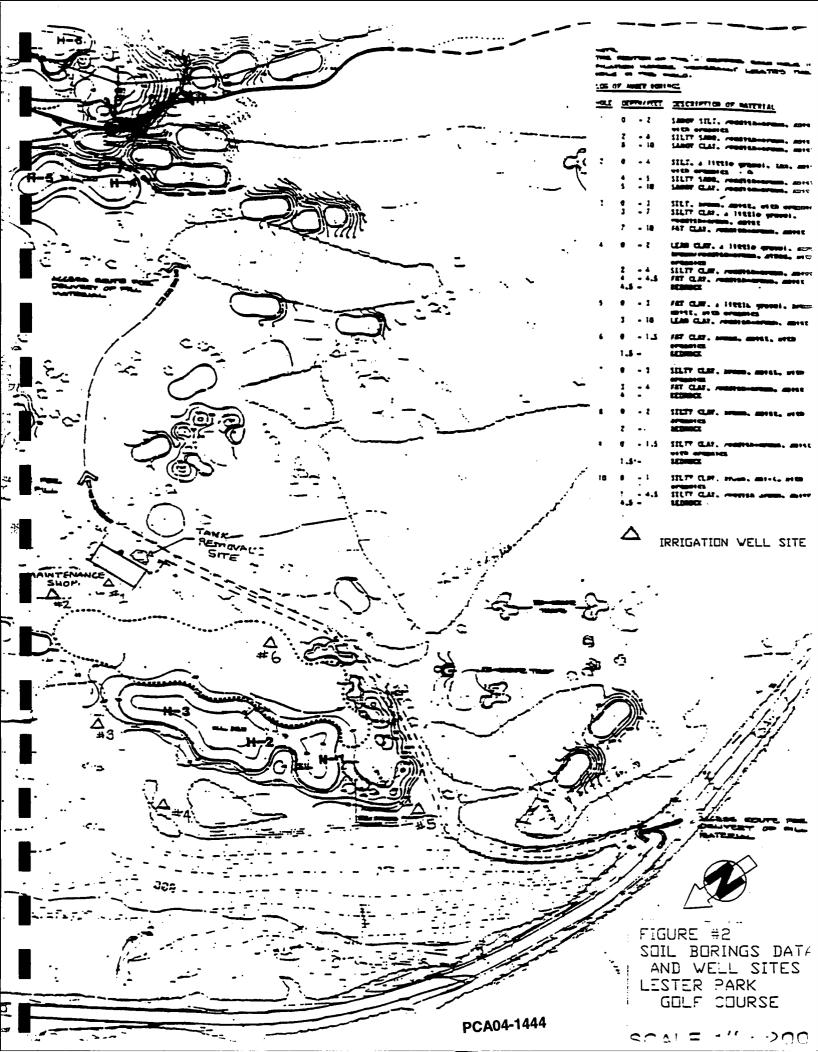
Excavation Report for City of Duluth, Lester Park Golf Course

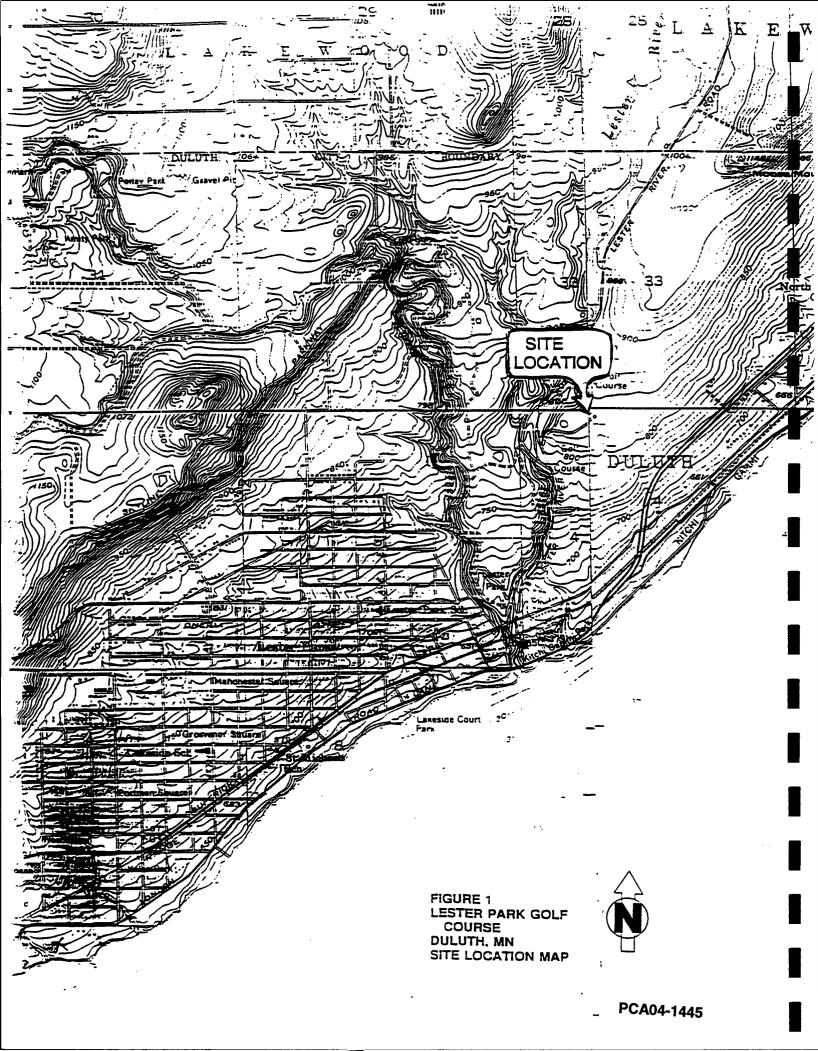
TWIN PORTS TESTING

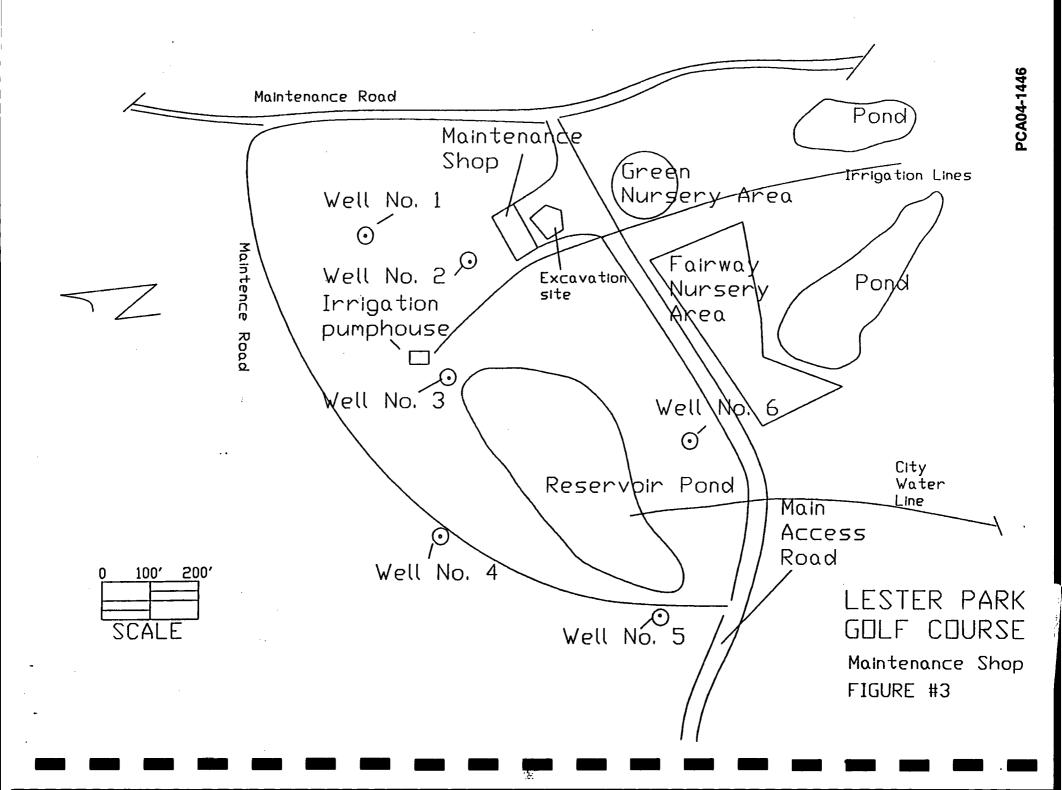
Figures

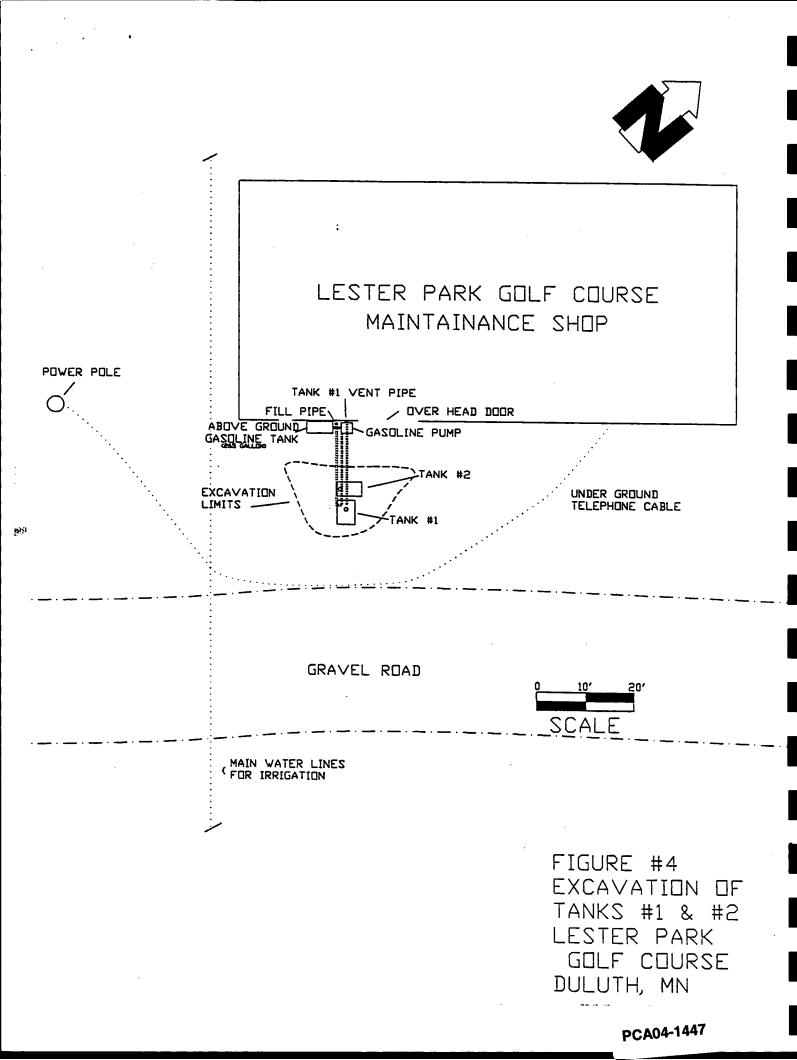
.

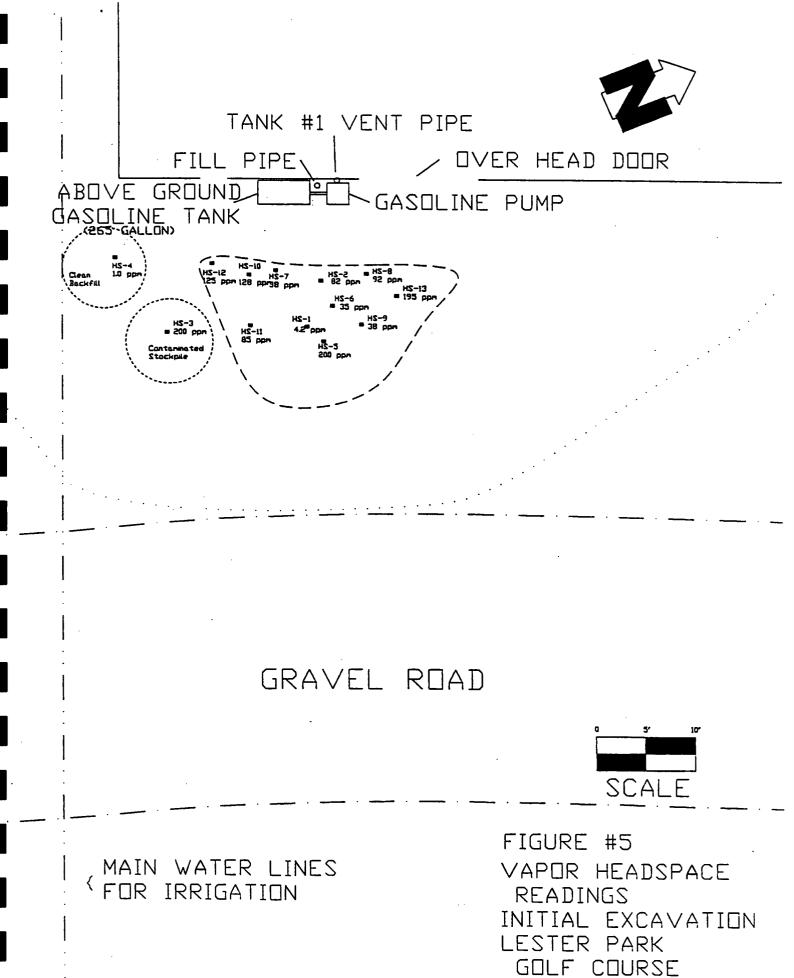
λę



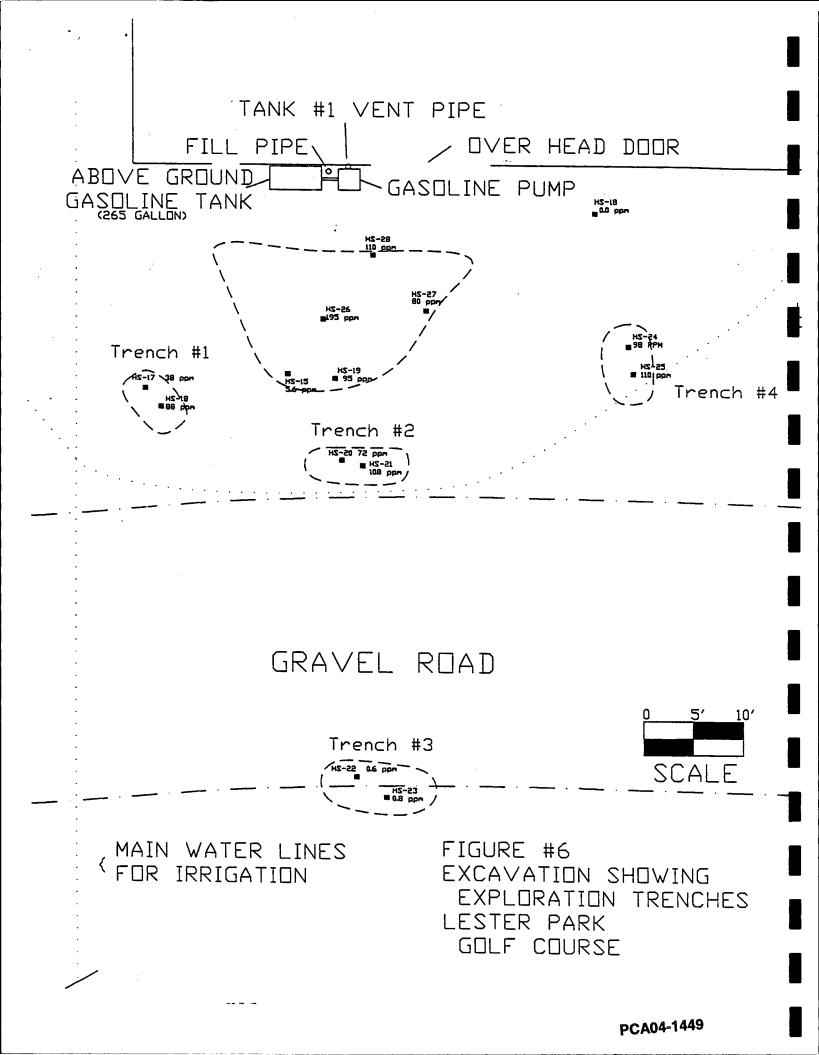


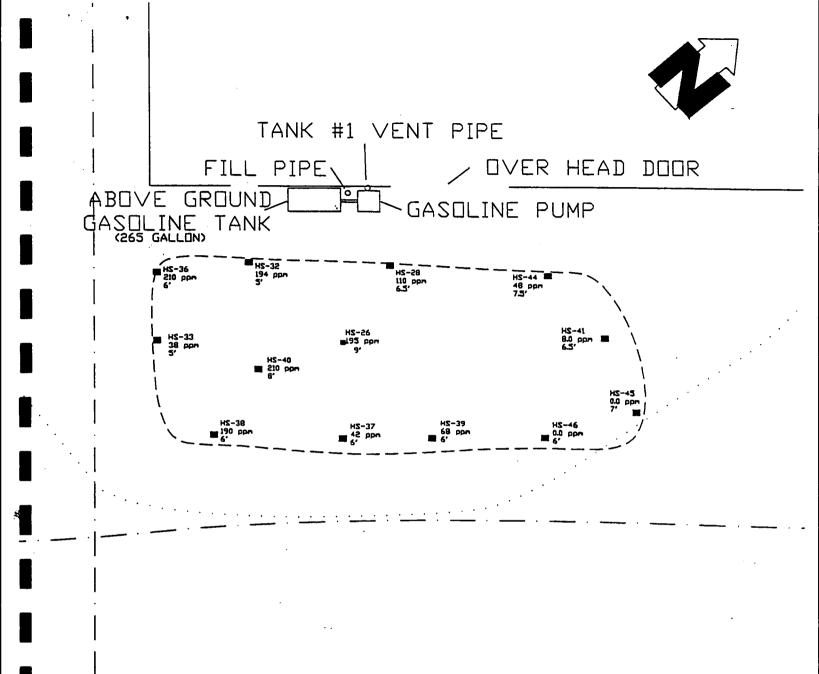






-- .. .



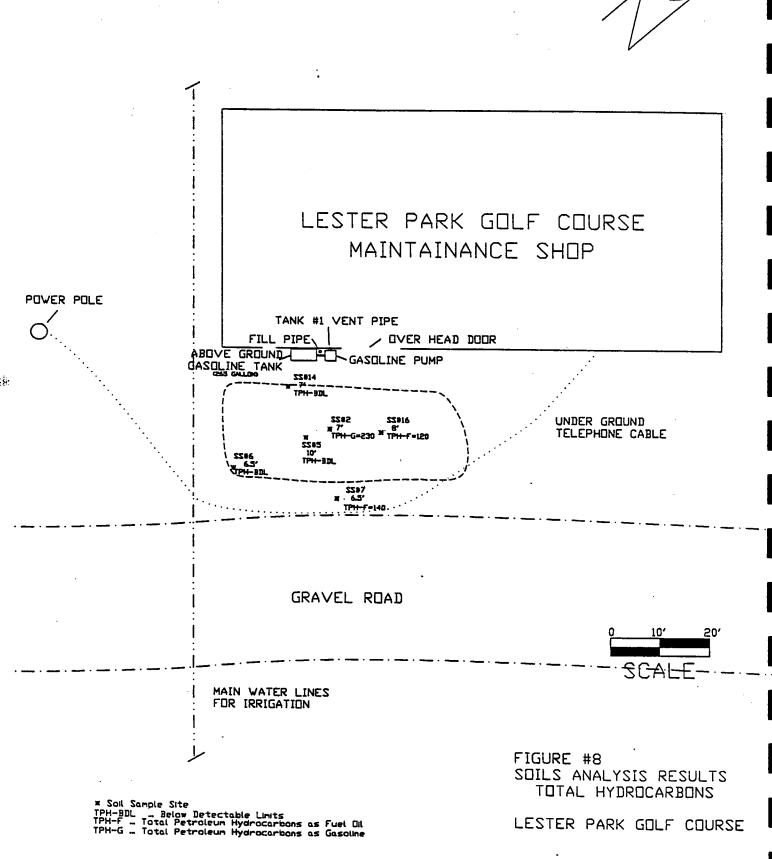


GRAVEL ROAD

0 5' 10' SCALE

MAIN WATER LINES

FIGURE #7 FINAL EXCAVATION & VAPOR READINGS LESTER PARK GOLF COURSE



- 54

:

Tables

.

TABLE 1

SUMMARY OF HEADSPACE ANALYSIS City of Duluth Lester Park Golf Course TPT# 91-90E

		1	1			
DATE	LOCATION	DEPTH	SOL TYPE	ORGANIC VAPOR CONCENTRATION (ppm)	COMMENTS	
4-24-90	HS-1	1'	Gravel Fill	4.2	Left side of fill pipe	
	HS-2	3.	Gravel Fill	82	North end of Tanks under blacktop surface	
	HS-3	2	Sandy Gravei	200	Up stockpile West of Excav	
	HS-4	2	Street Sweeping	1.0	Clean Backfill brought by City	
	HS-5	5	Sandy Fill	200	Under Tank # 1	
	HS-6	5	Sandy Fill	35	Under Tank # 2	
	HS-7	ଟ	Clay	38	North Wall North West Tank # 1	
	HS-8	6'	Clay	92	North Wall North East Tank # 2	
	HS-9	5	Clay	38	East Wall	
	HS-10	6	Clay	128	North West Corner of Excavation	
	HS-11	Т	Gravel	85	West of Tanks	
	HS-12	8	Gravel Beds	125	Up Trench West Wall	
	HS-13 ·	6	Sandy Clay	195	Up Trench East Wall	
	HS-14	Sample	No.	Not	Used	
5-3-80	HS-15	2	Reddish Brown Silty Sand	5.6	Below Water Level South Wall	
	HS-16	5	Same	38	Test Hole # 1	
	. HS-17	6 1 <i>/2</i> *	Same	88	Bottom Test Hole # 1	
	HS-18	6	Clean Sand	· 0	Backfill Material From Anderson Pi	
	HS-19	6 1/2"	Silty Sand	95	South Wall of Excavation	
	HS-20	5	Silty Clay	72	Test Hole # 2	
	HS-21	6 1/2"	Silty Sand	108	Bottom of Test Hole # 2	
	HS-22	4 1/2	Lean Red Clay	0.6	Test Hole # 3	
	HS-23	6 1/2"	Lean Red Clay	0.8	Bottom of Test Hole # 3	
	HS-24	5	Reddish Brown Silty Sand	98	Test Hole # 4	
5-3-90	HS-25	6 1/2	Silty Sand	110	Bottom Test Hole # 4	
	HS-26	8.	Clay	195	Bottom Center of Pit	

	1					
DATE	LOCATION	DEPTH	SOIL TYPE	ORGANIC VAPOR CONCENTRATION (ppm)	COMMENTS	
	HS-27	67	Silty Sand	80	East Wall of Excavation	
	HS-28	6 1/2	Silty Sand	110	North Wall of Excavation	
5-4-9 0	HS-29	6	Gravel & Silt	0.4	Surface Material of Driveway	
	HS-30	1 1/2 :	Clay	5.2	Layer # 2	
	HS-31	3	Clay	Clay 130		
	HS-32	5	Reddish Brown Silty Sand	194	North Wall West of Center	
	HS-33	5	Same	38	West Wall Centered	
	HS-34	Stockpile # 1	Gravel & Clay	5.4	Surface Material	
	HS-35	Stockpile # 2	Gravel & Clay	98	Front Pile Surface Material Hauled Out	
	HS-36	ଟ	Reddish Brown Silty Sand	210	West Wall North End	
	HS-37	6	Same	42	West Wall Center	
	HS-38	6	Same	190	South Wall West of Center	
	HS-39	6'	Same	68	South Wall East of Center	
······	HS-40	8'	Silty Sand & Clay	210	Bottom West of Center	
5-7-90	HS-41	6 1/2'	Reddish Brown Silty Sand	8.0	Middle East of Center	
	HS-42	6 1/2	Same	38	West End of East Excavation	
	HS-43	5 1/2	Same	178	West End of Excavation	
	HS-44	7 1/2	Red Clay	48	North Wall 7 1/2" East Excavation	
	HS-45	7	Reddish Brown Silty Sand	0	East Wall Lower	
	HS-46	б	Sandy Clay	0	East Wall Upper	
	HS-47	6	Reddish Brown Silty Sand	. 0	East Wall of Excavation.	

30

TABLE 2

Summary of Soil Sample Analysis

Lester Park Golf Course 1860 Lester River Road Duluth, Minnesota 55804

TPT #91-90E

Sample #	SS #2	SS #6	SS #5	SS #7	SS #16	SS #14
Location	Below tank	Bottom test hole #1	Bottom center of excav.	Bottom test hole #2	Bottom E of center of excav.	North wall W of center of excav.
Depth	7	6 1/2'	10'	6 1/2'	8'	
Benzene (ppm)	3.3	⊲0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Ethylbenzene (ppm)	2.3	0.007	<0.005	0.52	0.29	<0.005
Toluene (ppm)	8.3	⊲0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Xylene (ppm)	20	0.016	0.011	0.42	0.97	0.006
FID Scan Total Hydrocarbons as Fuel Oil (ppm	(A)	<2.0	<2.0	140	120	<2.0
FID Scan Total Hydrocarbons as Gasoline (ppm)	230	<0.50	⊲0.50	(B)	(B)	⊲0.50
Lead, as Pb (ppm)	38	12	17	14	23	13

(A) = Unable to quantify due to presence of gasoline

(B) = Unable to quantify due to presence of fuel oil

(C) = Increased detection limits due to high level of contamination

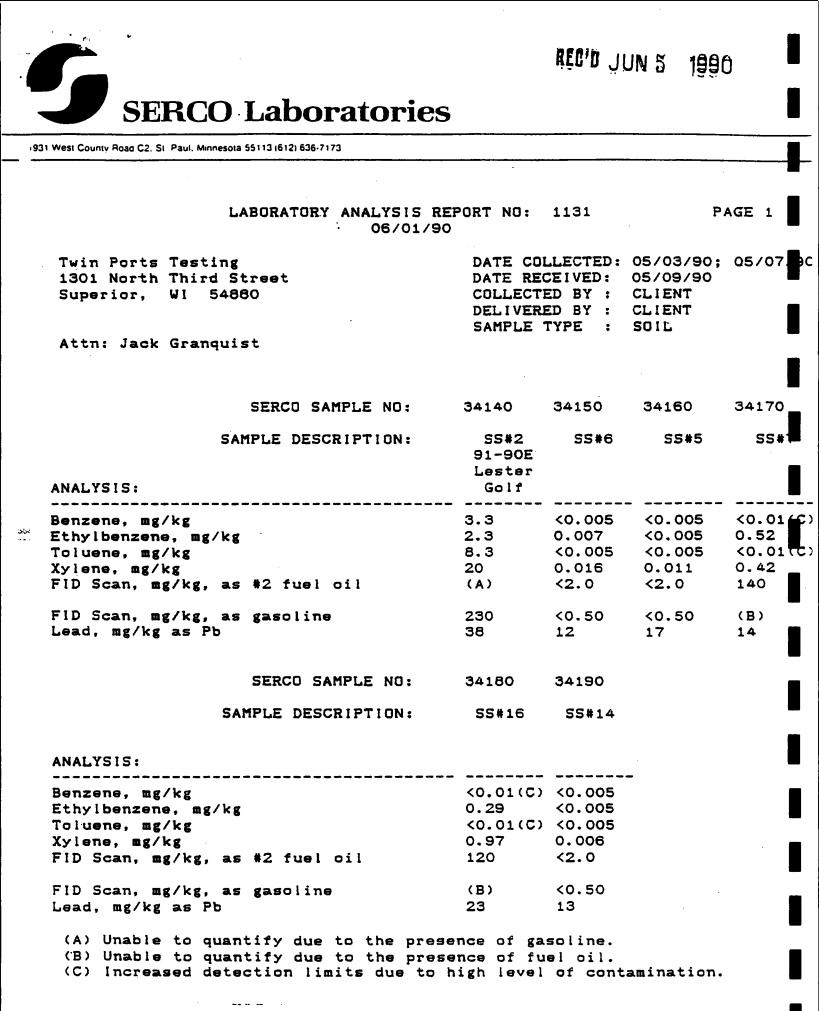
· · · · ·

· ·

• • •

. .

Appendix A





31 West County Road C2, St. Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 1131 06/01/90 PAGE 2

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

Inclusor

Diane J. Knderson Project Manager

PCA04-1458



. . . .

						GHAINMD	F)Y		CO	<u>g</u> D)			
ROJEC	T NO.	PROJE	CT N	ÂMÉ	/ CLIENT					Ϊ.	3/	ġ/	/			
91-	90E	L	est	fer	Golf		40			/ 🤋	$\langle \rangle$	γ,	/ /			
		L					NO.			I A	Y	\int	1.			
	Ja	slure) L R_	-61	au	t'		OF	·	/ 5	1	Ϋλ	Y K	J	9/0,000	REMARKS	459
AAIPLE NO.		TIAIE	1÷	S.		E LOCATION	CON- TAINERS	1	ŧ,	N N		Ź	¥]	Contact F Jack Gr	dugnist	 PCA04-1459
万世2	5/3		×		Below -	Tank		X	X			×		Colors Tanl	k - Slurrey	1
	5/3			X	Testhole		<u> </u>	×	<u> </u>	X	X	X		6'S Fort be		
5x# 5	513			X	Bottomica	ter lo		<u>×</u>	X	<u>×</u>	<u>X</u> .	×		Bottom ccu	ter of Excavation	
55# 7	5/3			X	Bottom Tes	Hole#2 63	1	X	×	X	X	×		Test Halet	# 2.	
is# 16	5/7			X	EastEnd of	Excavation	1	X	X	\times	X	X		Center Botto	•	
55#14	5/7			X	Northh	-	1	X	<u>×</u>	×	X	X		Level of th	a Seam	WC-
ds#	3			*		adma of Exc.		×	×	×	ž	大	•	Periode	- And farming of the	tited -
															. 0*	
					· · · ·									· · · · · · · · · · · · · · · · · · ·	•]
<u></u>																
					. <u></u>											
<u> </u>																
					· ·											
														·		
ILLING	JISTIED	BY: (5'5	natur	e" 3	DATE/TIAIE	RECEIVED BY: (Signal	m		-		D BY				RECEIVED BY: (Signature)	
REING	UISHED	BY: (Sig	natur		DATE/TIME	RECEIVED BY: (Signal	ure)		•		D BY	_			RECEIVED BY: (Signature	
RELING					DATE/TIME	RECEIVED FOR LABO BY: (Signature)	DRATORY		DÀTE	711N 	1E	REN	4AR)	(5:		Ç.1
	9 TE	BTIN	G i	nc.		l		I								Ö
ð					, C											0661
- 2		•• 11 ••	••••	••	• ₩ 1 • •••			~				l				



1301 NORTH THIRD STREET SUPERIOR, WISCONSIN 54880 - FAX # 715-392-7163 (715) 392-7114

LABORATORY REPORT

Firm CITY OF DULUTH

Material UNKNOWN

Date Received 04/24/90

0

Sample Designation FLUID SAMPLE #1 TPT Lab No. 91-90E

Taken By TPT

Date Tested 04/30/90

DATA

FLASH POINT (°F): 76

Kais L. Mass PREPARED BY

DATE 04

PCA04-1460

AS MUTUAL PROTECTION TO CLIENTS. THE PUBLIC, AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

EXCAVATION AND PETROLEUM RELEASE REPORT

Lester Park Golf Course Maintenance Shop

City Of Duluth

1860 Lester River Road Duluth, Minnesota

Mr. Bob Troolin Administrative Services 313 City Hall Duluth, Minnesota 55802

PCA04-1461

22

													• •										
**if n	A=N D=H G=N			463	04-1	PCL		<u>,</u>	1				10.7	Ó	Regu								
ot usin	one N03 aOH	Harlin	ant s ang t	· · ·	· ,		<u>\</u>	<u>ک</u>	<u>4</u>	3	2	1 1	Chem w	lher	latory F	ect Loca pled By	j Este	ect Num	ohone:			pany N	
lume	B=H E=Er	Droce			· .					<u>r</u>			vill noi	2 11 2 4 	Progra		• • •	:• * . ⁷			. ·		
of meth	CL Core	nutio-				· · : .	<u> </u>	<u>ή</u> ω [fP-	w	NW	<u>ww</u>	ΜW	s.) Birth	1 - s	um <i>(circ</i> S C/	ı):G	<u></u>	0.10	<u></u>	- T	•	•	.
anol a	C≃H F=M	Cada							·	13			وي در المح	, air i	<i>le)</i> : L	vy	لرب		00(S. 497.			<u>-</u>
anol, c dded a	2SO4	2434p	· ·,			·							s other WPLE DES	equired	JST IB	PA	JUZ	6	3	CH/	DTH		
nd						•								? (circle		rte	<u> </u>	n (1. 2		
Relinquis Relinquis	Relinquis	Relinquis		· .		•	✓ 100 100 100 100 100 100 100 100 100 10	/				TER	structed.,	e): Y	CLP	H		MRK		 1			
	TEG TOY	hed Bv		•						in pr					SDV		<u></u>	60			1.7.84		
	-					•:				<u>.</u>		DATE:	Соц		VA		<u>r</u> C	6 .			at ag far		
A			1		· .		· · ·					Satimes	ECTION	=	\neg		к а (-	- -	_ _	 	
, ,	· ·	<u> </u>		<u> </u>					$\left \right $			<u>γ</u>		19		p	_		U		E		
17.16				<u> ·</u>	:						$ 1\rangle$		er (A		697	n n	ESTAV	FIL		ΙΔI			
Date	J2/ Date	Date				·	↓ ▼						St.	_ /			ATION	TERED'	.11		9		
/Time:	/Time:	/Time:					<u> </u>			ļ			GIE			S/	(CODE	? (YES	Jr)F		тт	
	<u>ר י</u>	<u> </u>								1		<u> </u>	¥.					/NO) 🖊		ΓT			
Receiv	Receiv	Receiv					<u> </u>	<u> </u>		· ·		\frown]	/ /			3/19	7		ISI	4	— (r	
ed By (P	ved By:	igd By: /		<u> </u>			1			_	<u>.</u>	$\int $. .	.		5/3	N /		IOI		Gree	
In Chem	<i>H</i>	1		· · ·	· · ·		· · ·	· .					-		.		7		/ 1	١V	436 • 1- C 414-46	n Bay, V	
1	shu			 			· .		-	<u> </u>	-						/	· /			800-736-2 9-8827 	ie St., Sui VI 54302	
·		n.	1.1	· · · · · · · · · · · · · · · · · · ·		1		W	W	W	W	W	MATRIX				\angle		63	/ -	2436	· · ·	
)	2-1								14月 第1月	2	1	COND	Invoice T	Addre			\nearrow	<u>`</u>	522	- ^ ^	608-		
	6-97							22				EBOTTLES	SH	əss:	ompany:	Invoice	$ \left[\right] $	7	•			Madiso	5. fe
Date/Time:	Date/Time	Date/Time	10.36		200 C			10-10				Direbo			en de la composition de la composition) • To:	Address:		/		1 • 1-888-53 08-827-550	2 Deming W n, WI 5371	
- 2:11		E alain											A FOR L	an an ann an	e terre de Terre des			lail Report	P.O. #	Pag		7 🔨 🕤	
Sample Re (Wet/Metals)	Sample Re	En Chem		an a										en e				To:	र दुर्ग्या स्ट्रिस्ट	9		`S	
	C	Project No											RY USE						_ Quote			uperior, V	
	<u>344</u>								TOU A	<u>-O</u>	_0[ONLY LABORAT		k (1997) - 1997 (1997)				#	of	1-800-837- 192-5843	Street., Su VI 54880	
									191	03	05		ORYZ		alling Vice of	的權		1					
•				t t tyt		•		5 5 5							L I	and the second	рания. 1947 г. – С						



- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE

Project Number :

MN LAB ID: 055-999-334

Client: REMEDIATION SERVICES INC

Report Date : 12/19/97

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
770394-001	MW-1	12/15/97			
770394-002	MW-2	12/15/97			
770394-003	MW-3	12/15/97			
770394-004	MW-4	12/15/97			
770394-005	MW-5	12/15/97			
770394-006	GP-1	12/15/97			

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Approval Signature

12-19-9



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

Lab#:	TestGroupID:	Comment:
770394-001	DRO-W	Diesel range peaks present in the chromatogram.
770394-002	GRO-W	Sample exhibits hydrocarbon pattern resembling gasoline. Early and late peaks were present outside of window.
	DRO-W	Front peaks,late eluting hump and diesel range peaks present in the chromatogram.
770394-003	DRO-W	Elevated detection limit due to low sample volume.
	DRO-W	Diesel range peaks present in the chromatogram.
770394-004	DRO-W	Diesel range peaks present in the chromatogram.
770394-005	DRO-W	Diesel range peaks present in the chromatogram.



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE

Project Number :		Client :	REMEDIATION SERVICES INC
Field ID :	MW-1	Report Date :	12/19/97
Lab Sample Number :	770394-001	Collection Date :	12/15/97
MDH LAB ID :	055-999-334	Matrix Type :	WATER

Organic Results

		Prese	vation Date:		
	Prep Method:	SW846 5030	Prep Date:	12/18/97 Anal	yst: MDC
Result	EQL L	Inits	Code	Analysis Date	Analysis Method
106	%	6Recov		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 2.0	2.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
	106 < 1.0 < 1.0 < 1.0 < 2.0	Result EQL L 106 % < 1.0	Prep Method: SW846 5030 Result EQL Units 106 %Recov < 1.0	Result EQL Units Code 106 %Recov < 1.0	Prep Method: SW846 5030 Prep Date: 12/18/97 Analysis Date Result EQL Units Code Analysis Date Date Analysis 106 %Recov 12/18/97 12/18/97 < 1.0

Organic Results

DIESEL RANGE ORGANICS - WATER

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 110	110	ug/l		12/18/97	WI Mod DRO
Blank spike	107		%Recov		12/18/97	WI Mod DRO
Blank spike duplicate	103		%Recov		12/18/97	WI Mod DRO
DRO blank	< 50	50	ug/l		12/18/97	WI Mod DRO

Organic Results

Preservation Date:

Prep Method: Wi Mod GRO Prep Date: 12/18/97 Analyst: MDC

Preservation Date:

Prep Method: Wi Mod DRO Prep Date: 12/17/97 Analyst: MDC

GASOLINE RANGE ORGANICS - WATER

Analyte	R	esult	E	QL	Units	Code	Analysis Date	Analysis Method	
GASOLINE RANGE ORGANIC	<	50		50	ug/l		12/18/97	WI Mod GRO	
Blank Spike		105			%Recov		12/18/97	WI Mod GRO	
Blank Spike Duplicate		100			%Recov		12/18/97	WI Mod GRO	
GRO blank	<	50		50	ug/l		12/18/97	WI Mod GRO	



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

 Project Name :
 COD LESTER PARK GOLF COURSE

 Project Number :
 Client :

 Field ID :
 MW-2

 Report Date :
 12/19/97

 Lab Sample Number :
 770394-002

 MDH LAB ID :
 055-999-334

Organic Results

			Prese	rvation Date:		
TEX - WATER		Prep Method:	SW846 5030	Prep Date:	12/18/97 Analy	yst: MDC
Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	112		%Recov		12/19/97	SW846 8020
Benzene	160	2.0	ug/l		12/19/97	SW846 8020
Ethylbenzene	20	2.0	ug/l		12/19/97	SW846 8020
Toluene	5.3	2.0	ug/l		12/19/97	SW846 8020
Xylenes, -m, -p	< 4.0	4.0	ug/l		12/19/97	SW846 8020
Xylene, -o	4.2	2.0	ug/l		12/19/97	SW846 8020

Organic Results

Preservation Date: **DIESEL RANGE ORGANICS - WATER** Prep Method: Wi Mod DRO Prep Date: 12/17/97 Analyst: MDC Analysis Analysis Result EQL Analyte Units Code Date Method DIESEL RANGE ORGANICS 440 110 ug/l 12/18/97 WI Mod DRO 107 Blank spike %Recov 12/18/97 ----WI Mod DRO Blank spike duplicate 103 ----%Recov 12/18/97 WI Mod DRO DRO blank < 50 50 ug/l 12/18/97 WI Mod DRO

Organic Results

Preservation Date:

GASOLINE RANGE ORGANICS - WATER

Prep Method: Wi Mod GRO Prep Date:

12/18/97 Analyst: MDC

GASOLINE RANGE ORGANIC 2400 100 ug/l 12/19/9	7 WI Mod GRO	
Blank Spike 105 %Recov 12/19/9	7 WI Mod GRO	
Blank Spike Duplicate 100 %Recov 12/19/9	7 WI Mod GRO	
GRO blank < 50 50 ug/l 12/19/9	7 WI Mod GRO	



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

MDH LAB ID :	055-999-334	Matrix Type :	WATER
Lab Sample Number :	770394-003	Collection Date :	12/15/97
Field ID :	MW-3	Report Date :	12/19/97
Project Number :		Client :	REMEDIATION SERVICES INC
Project Name :	COD LESTER PARK GOLF COURSE		

Organic Results

		Prese	rvation Date:		
	Prep Method:	SW846 5030	Prep Date:	12/18/97 Ana	lyst: MDC
Result	EQL	Units	Code	Analysis Date	Analysis Method
104	(%Recov		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
< 2.0	2.0	ug/l		12/18/97	SW846 8020
< 1.0	1.0	ug/l		12/18/97	SW846 8020
	104 < 1.0 < 1.0 < 1.0 < 2.0	Result EQL I 104 < 1.0	Prep Method: SW846 5030 Result EQL Units 104 %Recov < 1.0	Result EQL Units Code 104 %Recov < 1.0	Prep Method: SW846 5030 Prep Date: 12/18/97 Analysis Date Result EQL Units Code Analysis Date 104 %Recov 12/18/97 < 1.0

Organic Results

Prep Method: Wi Mod DRO Prep Date:

DIESEL RANGE ORGANICS - WATER

Analyte	Result	EQL Units		Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 120	120	ug/l		12/18/97	WI Mod DRO
Blank spike	107		%Recov		12/18/97	WI Mod DRO
Blank spike duplicate	103		%Recov		12/18/97	WI Mod DRO
DRO blank	< 50	50	ug/l		12/18/97	WI Mod DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER

Preservation Date:

Prep Method: Wi Mod GRO Prep Date: 12/18/97 Analyst: MDC

Preservation Date:

12/17/97

Analyst: MDC

Analyte	e Result		Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANIC	< 50	50	ug/l		12/18/97	WI Mod GRO
Blank Spike	105		%Recov		12/18/97	WI Mod GRO
Blank Spike Duplicate	100		%Recov		12/18/97	WI Mod GRO
GRO blank	< 50	50	ug/l		12/18/97	WI Mod GRO



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE **Project Number:** Client: REMEDIATION SERVICES INC Report Date : 12/19/97 Field ID: MW-4 Collection Date: 12/15/97 Lab Sample Number: 770394-004 Matrix Type: WATER MDH LAB ID : 055-999-334

Organic Results

	Preservation Date:								
	Prep Method:	SW846 5030	Prep Date:	12/18/97 Ana	lyst: MDC				
Result	EQL	Units	Code	Analysis Date	Analysis Method				
104		%Recov		12/18/97	SW846 8020				
< 1.0	1.0	ug/l		12/18/97	SW846 8020				
< 1.0	1.0	ug/l		12/18/97	SW846 8020				
< 1.0	1.0	ug/l		12/18/97	SW846 8020				
< 2.0	2.0	ug/l		12/18/97	SW846 8020				
< 1.0	1.0	ug/l		12/18/97	SW846 8020				
	104 < 1.0 < 1.0 < 1.0 < 2.0	Result EQL I 104 < 1.0	Prep Method: SW846 5030 Result EQL Units 104 %Recov < 1.0	Prep Method: SW846 5030 Prep Date: Result EQL Units Code 104 %Recov < 1.0	Prep Method: SW846 5030 Prep Date: 12/18/97 Analysis Date 104 %Recov 12/18/97 < 1.0				

Organic Results

DIESEL RANGE ORGANICS - WATER Prep Method: Wi Mod DRO Prep Date: 12/17/97 Analyst: MDC

GASOLINE RANGE ORGANICS - WATER

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method	
 DIESEL RANGE ORGANICS	< 110	110	ug/l		12/18/97	WI Mod DRO	-
Blank spike	107		%Recov		12/18/97	WI Mod DRO	
Blank spike duplicate	103		%Recov		12/18/97	WI Mod DRO	
DRO blank	< 50	50	ug/l		12/18/97	WI Mod DRO	

Organic Results

Preservation Date:

Preservation Date:

Prep Method: Wi Mod GRO Prep Date: 12/18/97 Analyst: MDC

Analyte	Result		Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANIC	< 50	50	ug/l		12/18/97	WI Mod GRO
Blank Spike	105		%Recov		12/18/97	WI Mod GRO
Blank Spike Duplicate	100		%Recov		12/18/97	WI Mod GRO
GRO blank	< 50	50	ug/l		12/18/97	WI Mod GRO



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

Project Name :	COD LESTER PARK GOLF COURSE		
Project Number :		Client :	REMEDIATION SERVICES INC
Field ID :	MW-5	Report Date :	12/19/97
Lab Sample Number :	770394-005	Collection Date :	12/15/97
MDH LAB ID :	055-999-334	Matrix Type :	WATER

Organic Results

		Preservation Date:							
TEX - WATER		Prep Method:	Prep Date:	12/18/97	Analyst: MDC				
Analyte	Result	EQL	Units	Code	Analysis Dat e	Analysis Method			
a,a,a-Trifluorotoluene	106	0	%Recov		12/18/9	7 SW846 8020			
Benzene	1.1	1.0	ug/l		12/18/9	7 SW846 8020			
Ethylbenzene	< 1.0	1.0	ug/l		12/18/9	7 SW846 8020			
Toluene	< 1.0	1.0	ug/l		12/18/9	7 SW846 8020			
Xylenes, -m, -p	< 2.0	2.0	ug/l		12/18/9	7 SW846 8020			
Xylene, -o	< 1.0	1.0	ug/l		12/18/9	7 SW846 8020			

Organic Results

Prep Method: Wi Mod DRO Prep Date:

Preservation Date:

Preservation Date:

12/17/97

Analyst: MDC

DIESEL RANGE ORGANICS - WATER

Analyte	Result		Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 110	110	ug/l		12/18/97	WI Mod DRO
Blank spike	107		%Recov		12/18/97	WI Mod DRO
Blank spike duplicate	103		%Recov		12/18/97	WI Mod DRO
DRO blank	< 50	50	ug/l		12/18/97	WI Mod DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER

Prep Method: Wi Mod GRO Prep Date: 12/18/97 Analyst: MDC Analysis Analysis Result EQL Units Code Analyte Date Method **GASOLINE RANGE ORGANIC** < 50 50 12/18/97 ug/l WI Mod GRO Blank Spike 105 12/18/97 ----%Recov WI Mod GRO Blank Spike Duplicate 100 %Recov 12/18/97 WI Mod GRO ----GRO blank < 50 50 12/18/97 WI Mod GRO ug/i



- Analytical Report -

Project Name :	COD LESTER PARK GOLF COURSE		
Project Number :		Client :	REMEDIATION SERVICES INC
Field ID :	GP-1	Report Date :	12/19/97
Lab Sample Number :	770394-006	Collection Date :	12/15/97
MDH LAB ID :	055-999-334	Matrix Type :	WATER

Organic Results

		Preservation Date:								
TEX - WATER		Prep Method:	SW846 5030	Prep Date:	12/18/97 Anal	yst: MDC				
Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method				
a,a,a-Trifluorotoluene	105		%Recov		12/18/97	SW846 8020				
Benzene	< 1.0	1.0	ug/l		12/18/97	SW846 8020				
Ethylbenzene	< 1.0	1.0	ug/l		12/18/97	SW846 8020				
Toluene	< 1.0	1.0	ug/l		12/18/97	SW846 8020				
Xylenes, -m, -p	< 2.0	2.0	ug/l		12/18/97	SW846 8020				
Xylene, -o	< 1.0	1.0	ug/l		12/18/97	SW846 8020				

Organic Results

Preservation Date: GASOLINE RANGE ORGANICS - WATER Prep Method: Wi Mod GRO Prep Date: 12/18/97 Analyst: MDC Analysis Analysis Result EQL Units Code Analyte Date Method 12/18/97 WI Mod GRO GASOLINE RANGE ORGANIC < 50 50 ug/l 12/18/97 WI Mod GRO 105 %Recov Blank Spike ----Blank Spike Duplicate 100 %Recov 12/18/97 WI Mod GRO ---GRO blank 12/18/97 WI Mod GRO < 50 50 ug/l

Compa Branct	any Nam h or Loca	e: RS	I UCUTI Pari I	4, MN CH		_	E	508		HE	INC.	92	0-469-24	Bellevu 1 Bay, W 436 • 1-4 920-46	e St., Suit I 54302 300-736-24	e 9	608-8	802 Madiso 27-5501) +) (A) 2 Deming Way n, WI 53717 l • 1-888-536-2436 08-827-5503	715-38	Superior, V 2-5844 • 1	Street., Suite VI 54880 -800-837-825 92-5843	38
Teleph Project	ione: t Numbe	727 - r	6013			_	СН		: •) F (•		OE	Y			1!	582	Mail Rep	Page # prt To:	Quote		· · · ·
Project Sample Regula	t Locatio ed By (P	n: rint): <u>674</u> gram (<i>circle</i>):	CALTCH UST F	<u>TROYSCH</u>	1172		PRE	SERVA		CODE)				~				Invoice					
NR720 (En Ch	er) Confirm nern will i		s Required? nless otherwi	(circle): Y ise instructed.)		ECTION	- 2 Con	2	1.	_/.					FED	iesisesi	Addres	:	ADED AREA FOR	LABORAT	ORY USE	ONLY LABORATORY NUMBER	
6P-1 6P-1	(s') (14)	501C 501L			12/11		XX	X	X X						ND 2.6			2-6 V	9833 9833	17 <u>78</u> 051	2 <u>0</u> 68		2
			· · · · ·													· · · ·							
PCA0		· · · · · · · · · · · · · · · · · · ·																					
												· · · · · · ·											
	*Pre	servation"Co		Relinquished	By				Date/	Time:		Receive	ed By:						'Date/Time:	En Cher	n, Project No		
A=Nor D=HN G=Na(ne), B D3 E DH O GH	HCL EnCore Other (Indic En Chem's m	C=H2SO4 =Methanol* ate)	Reinquished					Date/			Receive	_	-					Date/Time: Date/Time:		70 Receipt Tem 3.80 Receipt pH	550 50	
k Indica		e of methan oria	ol added an	d M R ied	By				ſ	-) :		Flecence	By (E	n Chin	Ob	2	í -	12	Date/Time: 10		New Press		2 - 4 - 1 4 - 12 - 1



- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE

Project Number :

MN LAB ID: 055-999-334

Client: REMEDIATION SERVICES INC

Report Date : 12/18/97

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
770380-001	GP-1 (8')	12/11/97			
770380-002	GP-1 (14')	12/11/97			

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

peter

Approval Signature

12-18-97

Date



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

COD LESTER PARK GOLF COURSE		
	Client :	REMEDIATION SERVICES INC
GP-1 (8')	Report Date :	12/18/97
770380-001	Collection Date :	12/11/97
055-999-334	Matrix Type :	SOIL
	COD LESTER PARK GOLF COURSE GP-1 (8') 770380-001 055-999-334	Client : GP-1 (8') Report Date : 770380-001 Collection Date :

Inorganic Results

Test	Result	EQL	Units C	Analy Code Dat		Prep /lethod	Analysis Method
Solids, percent	82.3		%	12/1	6/97 S	SM2540G	SM25400
		Organic	c Results				
			Pres	ervation Date:	12/12	/97	
BTEX - METHANOL PRESERVED	SOIL	Prep Method:	: SW846 5030	Prep Date:	12/16/97	Analyst:	MDC
Analyte	Result	EQL	Units	Code	Analysis Date		Analysis Method
a,a,a-Trifluorotoluene	104		%Recov		12/16/9	17	SW846 8020
Benzene	< 25	25	ug/kg		12/16/9	17	SW846 8020
Ethylbenzene	< 25	25	ug/kg		12/16/9	17	SW846 8020
Toluene	< 25	25	ug/kg		12/16/9	17	SW846 8020
Xylenes, -m, -p	< 25	25	ug/kg		12/16/9	17	SW846 8020
Xylene, -o	< 25	25	ug/kg		12/16/9	97	SW846 8020
	•	Organio	c Results				
		-	Pres	ervation Date:	12/16	v/97	
DIESEL RANGE ORGANICS - SOI	۱ L	Prep Method	I: Wi Mod DRO) Prep Date:	12/16/97	Analyst:	KIG
Analyte	Result	EQL	Units	Code	Analysis Date		Analysis Method
DIESEL RANGE ORGANICS	< 4.5	4.5	mg/kg		12/17/9	37	WI Mod DRO
Blank spike	109		%Recov		12/17/9) 7	WI Mod DRO
Blank spike duplicate	105		%Recov		12/17/9	97	WI Mod DRO
DRO blank	< 4.0	4.0	mg/kg		12/17/9	97	WI Mod DRO
		Organie	c Results				
			Pres	ervation Date:	12/12	2/97	
GASOLINE RANGE ORGANICS -	SOIL/METHANOL	Prep Method	I: Wi Mod GRC	Prep Date:	12/16/97	Analyst:	: MDC
Analyte	Result	EQL	Units	Code	Analysis Date	۱ 	Analysis Method
Gasoline Range Organics	< 3.0	3.0	mg/kg		12/16/9		WI Mod GRO

Superior Laboratory 1423 N. 8th Street, Suite 122 Superior, WI 54880 715-392-5844 • Fax: 715-392-5843 1-800-837-8238 14 - Frank Star 2000 Martin Amarik

GRO blank



12/16/97

WI Mod GRO

- Analytical Report -

Project Name :	COD LESTER	PARK G	OLF COURSE				
Project Number :					Client :	REMEDIATIO	N SERVICES INC
Field ID :	GP-1 (8')				Report Date :	12/18/97	
Lab Sample Number :	770380-001				Collection Date :	12/11/97	
MDH LAB ID :	055-999-334				Matrix Type :	SOIL	
Blank Spike		120		%Recov	· · · · · · · · · · · · · · · · · · ·	12/16/97	WI Mod GRO
Blank Spike Duplicate		112	_	%Recov		12/16/97	WI Mod GRO

mg/kg

2.5

< 2.5



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE

Project Number :	Client : REMEDIATION SERVICES INC
Field ID: GP-1 (14')	Report Date : 12/18/97
Lab Sample Number: 770380-002	Collection Date: 12/11/97
MDH LAB ID: 055-999-334	Matrix Type: SOIL

Inorganic Results

Test	Result	EQL	Units		lysis ate	Prep Method	Analysis Method
olids, percent	61.6		%	12	/16/97	SM2540G	SM25400
		Organic	Results				
			Pre	servation Date:	12/1	2/97	
BTEX - METHANOL PRESERVED	SOIL	Prep Method:	SW846 503	0 Prep Date:	12/16/97	Analyst	: MDC
Analyte	Result	EQL	Units	Code	Analysi: Date	S	Analysis Method
a,a,a-Trifluorotoluene	107		%Recov		12/16/	/97	SW846 8020
Benzene	< 25	25 ug/kg			12/16/	/97	SW846 8020
Ethylbenzene	< 25	25	ug/kg		12/16/	/97	SW846 8020
Toluene	< 25	25	ug/kg		12/16/	/97	SW846 8020
Xylenes, -m, -p	< 25	25 ug/kg			12/16/97		SW846 8020
Xylene, -o	< 25	25	ug/kg		12/16/	/97	SW846 8020
		Organic	Results				
			Pre	servation Date:	: 12/1	6/97	
DIESEL RANGE ORGANICS - SO	1 L	Prep Method	: Wi Mod DR	O Prep Date:	12/16/97	Analyst	: KIG
Analyte	Result	EQL	Units	Code	Analysi Date	5	Analysis Method
DIESEL RANGE ORGANICS	< 6.3	6.3	mg/kg		12/17	/97	WI Mod DRO
Blank spike	109		%Recov		12/17	/97	WI Mod DRO
Blank spike duplicate	105		%Recov		12/17	/97	WI Mod DRO
DRO blank	< 4.0	4.0	mg/kg		12/17	/97	WI Mod DRO
		Organio	c Results				
			Pre	servation Date	: 12/1	2/97	
GASOLINE RANGE ORGANICS -	SOIL/METHANOL	Prep Method	: Wi Mod GR	O Prep Date:	12/16/97	Analyst	: MDC
Analyte	Result	EQL	Units	Code	Analysi Date	S	Analysis Method
Gasoline Range Organics	< 4.1	4.1	mg/kg		12/16	/97	WI Mod GRO



Corporate Office & Laboratory 1795 Industrial Drive Green Bay, WI 54302 920-469-2436 • Fax: 920-469-8827 1-800-7-ENCHEM

- Analytical Report -

Project Name : COD LESTER PARK GOLF COURSE

Project Number :				Client :	lient: REMEDIATION SERVICES INC			
Field ID: GP-1	(14')		Report Date: 12/18/97					
Lab Sample Number: 7703	80-002		·· ·	Collection Date :	ction Date: 12/11/97			
MDH LAB ID : 055-	999-334			Matrix Type :	SOIL			
Blank Spike	120		%Recov		12/16/97	WI Mod GRO		
Blank Spike Duplicate	112		%Recov		12/16/97	WI Mod GRO		
GRO blank	< 2.5	2.5	mg/kg		12/16/97	WI Mod GRO		

Company Nar Branch or Loc Project Conta Telephone:	cation: Dulyth, Ma					Bellevue	HE St., Suit	CHAIN OF CUSTODY INC. 2231 Catlin Ave., Suite 420	Mail Rep Compan	x. RSI 102 5.29	H Are W, Sirvel	
Project Number Project Name: C.O.D. Lester Park Golf (auge (LPGC) Project Location: Dulith, MN Sampled By (Print): Gary Ar Juhnson					Green Bay, WI 54302 414-469-2436 • 1-800-736-2436 FAX 414-469-8827 ************************************					D. LUFL MN 55806 Invoice To: Company: RSF Address:		
	rogram (<i>circle</i>) UST RCRA	CLP. SD	NA //	ો પાંચ				s Required? s otherwise instructed.)	Mail Invo			
Field ID	Sample Description		ection Time:	Field 9 Screen	Matrix	Filt'd Y/N)	Preserv	Analysis Requested	Good & A	Total	ents Laboratory, Number ::	
	Mw-1	12/4/41	2:55 pm		40		ß	DRO/GRO/BTEX/MTBE		5-00m2	50404	
	mw -2		3:40 pm				1	n/n/"/n			50404	
	Mw-3		1:45 pm					N/4 / 10 / 10	1		50409	
5	Mw-L		J:25					u/u/v/us			5000	
	Aw-S		3:25 pm					n / n / n / n	2/2	V	50404	
	MW-S Daplicate		3:25 pm		Ý		\mathbf{Y}	BTEX/MTBE	14.	<u> 2-6 (277-12-2</u>	50404	
	Trip	P/1/11			H20		B	GRO/BTEX/MTBE	1.	2-90ml	50404	
							Date/Tir	ne: A	70	50AA	En Chem Project No.	
	B=HCL: C=H2SO45	elinquiened	<u> </u>	Ŋ,	\sim		-/ว/	14/91	dila	. Charles	Sample Receipt Temp	
G=NaOH	O=Other (Indicate)	lelinquisted	1	4	atti		Date/III	ne: 2:10 p. Received By		0	(Must be rec'd at 4°C)	



. . . chemistry for the environment

Superior Laboratory
2231 Catlin Ave., Suite 420
Superior, WI 54880
1-800-837-8238Lab Certification No. 816079330
Location : C.O.D. LESTER PARK GOLF COURSE
En Chem Proj# : 1296013
Date Reported : 12/16/1996Fax: 715-392-5843Date Reported : 12/16/1996

Report to: REMEDIATION SERVICES INC

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample No. 504041, 504043, 504044 and 504045: Later eluting peaks outside DRO window.

Sample No. 504042: Front peaks outside of DRO window, indicating lighter fuels are present. Later eluting peaks outside DRO window. Mainly diesel range peaks present. Complex chromatogram for BTEX/MTBE analysis indicating the presence of hydrocarbons. Chromatogram has a typical gasoline pattern. Some peaks were outside of GRO window.



Superior Laboratory

Superior, WI 54880

Fax: 715-392-5843

715-392-5844 1-800-837-8238

2231 Catlin Ave., Suite 420

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GOLF COURSE Your Sample ID: Sample Desc. : MW-1 Sample Matrix : WATER Date Collected: 12/09/1996 En Chem Proj# : 1296013 Date Received : 12/10/1996 En Chem Lab # : 504041 Date Reported : 12/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

				Detection	•	Ргер	Analysis	•	Analysed
Analysis	Parameter	Result	Units	Limit 	Method	Date	Method	Date	B
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	S₩846 5030	12/11/1996	SW846 8020	12/11/1990	6 MDC
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		12/11/1996	WONR MOD GRO	12/11/1990	S MDC
	Blank spike	104	% RECOV	50					
	Blank spike duplicate	101	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		12/12/1996	WDNR MOD DRO	12/12/199	5 DLP
	Blank spike	99	% RECOV	50					
	Blank spike duplicate	102	% RECOV	50					
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	12/11/1996	SW846 8020	12/11/199	6 M <u>DC</u>
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	103	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:



Superior Laboratory 2231 Catlin Ave., Suite 420

Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843 ... chemistry for the environment

Lab Certificat	ion No.	405132750
Location	: C.O.D.	LESTER PARK GOLF COURSE
Your Sample ID):	
Sample Desc.	: MW-2	
Sample Matrix	: WATER	Date Collected: 12/09/1996
En Chem Proj#	: 1296013	Date Received : 12/10/1996
En Chem Lab #	: 504042	Date Reported : 12/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Aulysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
Mare-W	Methyl-tert-butyl Ether	ND	ug/l	4.0	SW846 5030	12/12/1996	SW846 8020	12/12/199	6 MDC
GRÖ	Gasoline Range Organics(GRO)-Water	3700	ug/l	200		12/12/1996	WDNR MOD GRO	12/12/199	6 MDC
-	Blank spike	104	% RECOV	50					
	Blank spike duplicate	101	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	530	ug/l	100		12/12/1996	WONR MOD DRO	12/12/199	6 DLP
	Blank spike	99	% RECOV	50					
	Blank spike duplicate	102	% RECOV	50					
B ara X-W	Benzene	210	ug/l	2.4	SW846 5030	12/12/1996	SW846 8020	12/12/199	6 MDC
	Ethyl Benzene	37	ug/l	4.0					
	Toluene	8.7	ug/l	4.0					
	Xylenes, m + p	24	ug/l	4.0					
	Xylene, o	9.4	ug/l	4.0					
	a,a,a-Trifluorotoluene (SS)	1 09	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

.....

Corporate Office & Laboratory

1795 Industrial Drive • Green Bay, WI 54302 • 414- 469-2436 • 800-736-2436 • FAX: 414- 469-8827



Superior Laboratory

Superior, WI 54880 715-392-5844

Fax: 715-392-5843

1-800-837-8238

2231 Catlin Ave., Suite 420

... chemistry for the environment

PCA04-1482

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GOLF COURSE Your Sample ID: Sample Desc. : MW-3 Sample Matrix : WATER Date Collected: 12/09/1996 En Chem Proj# : 1296013 Date Received : 12/10/1996 En Chem Lab # : 504043 Date Reported : 12/16/1996

Bill to: REMEDIATION SERVICES INC

DULUTH, MN 55806

102 SOUTH 29TH AVENUE WEST

Report to: REMEDIATION SERVICES INC SUITE 100

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Anal ed By
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	12/11/1996	SW846 8020	12/11/1996	5 M
GRO	Gasoline Range Organics(GRO)-Water Blank spike	ND 104	ug/l % RECOV	50 50		12/11/1996	WDNR MOD GRO	12/11/1990	5 MDC
	Blank spike duplicate		% RECOV						
DRO	Diesel Range Organics(DRO)-Water Blank spike Blank spike duplicate		ug/l % RECOV % RECOV			12/12/1996	WONR MOD DRO	12/13/1990	5 DLP
BTEX-W	Benzene	ND	ug/l		SW846 5030	12/11/1996	SW846 8020	12/11/1996	5 м
	Ethyl Benzene Toluene	ND ND	ug/l ug/l	1.0 1.0					
	Xylenes, m + p Xylene, o	ND ND	ug/l ug/l	1.0 1.0				·	
	a,a,a-Trifluorotoluene (SS)	105	% recov	1					-

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office & Laboratory

1795 Industrial Drive • Green Bay, WI 54302 • 414- 469-2436 • 800-736-2436 • Fax: 414- 469-8827



Superior Laboratory 2231 Catlin Ave., Suite 420

Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843 . . . chemistry for the environment

Lab Certification No.	405132750
Location : C.O.D.	LESTER PARK GOLF COURSE
Your Sample ID:	
Sample Desc. : MW-4	
Sample Matrix : WATER	Date Collected: 12/09/1996
En Chem Proj# : 1296013	5 Date Received : 12/10/1996
En Chem Lab # : 504044	Date Reported : 12/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Amulysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
MEE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	12/11/1996	SW846 8020	12/11/199	6 MDC
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		12/11/1996	WDNR MOD GRO	12/11/199	6 MDC
	Blank spike	104	% RECOV	50					
	Blank spike duplicate	101	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		12/12/1996	WONR MOD DRO	12/12/199	6 DLP
	Blank spike	9 9	% RECOV	50					
	Blank spike duplicate	10 2	% RECOV	50					
B M X-W	Benzene	ND	ug/l	0.6	SW846 5030	12/11/1996	SW846 8020	12/11/199	6 MDC
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
-	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	104	% recov	· 1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office & Laboratory



... chemistry for the environment

Lab Certificat	ic	on No.	405132	750			
Location	:	C.O.D.	LESTER	PAR	GOLF	COURS	SE
Your Sample ID	:						
Sample Desc.	:	MW-5					
Sample Matrix	:	WATER	I	Date	Colle	cted:	12/09/1996
En Chem Proj#	:	1296013	3	Date	Receiv	ved :	12/10/1996
En Chem Lab #	:	504045	I	Date	Report	ted :	12/16/1996

Superior Laboratory 2231 Catlin Ave., Suite 420 Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

				Detection	Prep	Prep	Analysis	Analysis	Anal
Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	B
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	12/11/1996	SW846 8020	12/11/1990	6 M
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		12/11/1996	WONR MOD GRO	12/11/1990	5 MDC
	Blank spike	104	% RECOV	50					_
	Blank spike duplicate	101	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		12/12/1996	WONR MOD DRO	12/12/199	6 DLP
	Blank spike	9 9	% RECOV	50					
	Blank spike duplicate	102	% RECOV	50					
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	12/11/1996	SW846 8020	12/11/199	
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0			•		
	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	104	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:



Superior Laboratory 2231 Catlin Ave., Suite 420

Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

В

. . . chemistry for the environment

Lab Certificati	on No. 40513	2750	
Location :	C.O.D. LESTE	R PARK GOLF COUR	SE
Your Sample ID:			
Sample Desc. :	MW-5 DUPLICA	TE	
Sample Matrix :	WATER	Date Collected:	12/09/1996
En Chem Proj# :	1296013	Date Received :	12/10/1996
En Chem Lab # :	504046	Date Reported :	12/12/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

malysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
E-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	12/11/1996	SW846 8020	12/11/1996	MDC
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	12/11/1996	SW846 8020	12/11/1996	MDC
-	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
_	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	103	% recov	· 1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Ø

Corporate Office & Laboratory 1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827



... chemistry for the environment

Lab Certificati	on No. 405	405132750							
Location :	C.O.D. LES	TER PARK GOLF COUR	SE						
Your Sample ID:									
Sample Desc. :	TRIP BLANK	(
Sample Matrix :	WATER	Date Collected:	12/09/1996						
En Chem Proj# :	1296013	Date Received :	12/10/1996						
En Chem Lab # :	504047	Date Reported :	12/12/1996						

Superior Laboratory 2231 Catlin Ave., Suite 420 Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analised B
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	12/11/1996	SW846 8020	12/11/1996	5 M
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		12/11/1996	WONR MOD GRO	12/11/1996	5 MDC
	Blank spike	104	% RECOV	50			•		_
	Blank spike duplicate	101	% RECOV	50					
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	12/11/1996	SW846 8020	12/11/1996	5 MDC
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					_
	Xylene, o	ND	ug/l	1.0					_
	a,a,a-Trifluorotoluene (SS)	105	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office & Laboratory 1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827

ipar									Paç <u>of</u>
Branch or Lo	ocation: Duluth, MN		· · · ·	14	V I	ΞĮ	TCHEM	Mail Report To:	y A. Johnson
Project Conta	act: Gary Johnson	2						Company:	
Telephone:	(218) 732-6013			- 1241	Bellevue St.,	Suit	e 9 🔲 2231 Catlin Ave., Suite	Address: /0]	S. 2914 Auc W., Smite 100
Project Num				Green	Bay, WI 54	302	Superior, WI_54880	ond <u>one of Duli</u>	12, MN 55806
Project Name	e: City of Duluth Lester	Park Gdf	(ourse	414-409-24 FAX	136 • 1-800-7 414-469-88		436 715-392-5844 • 1-800-837-8 FAX 715-392-5843	Invoice To:	
Project Locat	tion: Duluth, MN				снат	N	OF CUSTODY	Company: RS	
Sampled By	(Print): Gary A. Johnson					204 204		Address: SAn	ne as above)
Regulatory P	rogram (circle): UST RCRA CL	P SDW	IA	NR720 Co	nfirmation A	nalys	is Required?		
NPDES/WF	من المحمد ال المحمد المحمد		2	(En Chem	will confirm	unies	ss otherwise instructed.)	P.O. No.:	Quote No.:
Field ID	Sample Description	Collec		Fleid Matrix	Filt'd Pr	eserv*	Analysis	SHADED AREA F	OR LABORATORY USE ONLY
		Date		Screen		-	Requested	Cond. Bottles	Number
	Mw-1	\$/3/46	pm	H ₂ O		ß	GRO/BTEX / DRO	1 2- Yome	500820
	mw-2		3:05 pm	/		(GRO /BTEX/DRO		57082/
	Mu-3-		3:15 pm)	GRO /BTEX/DRE		500822
	mw-y		3:25		(/	GRO NOC /DRO	WALL STATE A DATE AND STATE AND	500823
	MW-5		2:56 pm				GRO/NOL/DRO	a server server that I get a server server	50824
	Mw-5 Duplicate	V	7:50 Pm			\int	Woc)	1 340ml	520825
	Trip Black	5/3/41		H ₂ O		S	GRU /VOC	V Y YONA	500826
		· ,	, .						
							·		
PC							1 (1) (1		
An						۰ ۲۰۰۰ ۲۰	A ST AST		
CA04-1487									
7				A			ne:		
A=None_	B=HCL	inquished By	<u> </u>	h	-	ate/Tir	196 8:30	malia Lata	En Chem Project No. L
D=HN03	E EnCorre E Mathanoltt	inquished By		D		ate/Tir		d By:	Sample Receipt Temp. (Must be rec'd at 4°C)
		ina	11a	Cera	tų 13	5-6	-96 10:15 Am		(Must be rec'd at 4°C),
	ng En Chem's methanol, Indi- e of methanol added and mark riate samples.	inquished By		1.1.0		ate/Tir ❤~/	ne: 6-96 10:152 Receive	d By (Er Chern)	-1.00



... chemistry for the environment

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

Lab Certification No. 816079330 Location : C.O.D. LESTER PARK GULF COURSE En Chem Proj# : 0596011 Date Reported : 05/14/1996

Report to: REMEDIATION SERVICES INC

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample No. 500821: Complex chromatogram for BTEX analysis indicating the presence of fuel. Chromatogram has a typical gasoline pattern. Some peaks were outside of GRO window. Front peaks outside of DRO window, indicating lighter fuels are present.



2231 Catlin Avenue, Suite 420

Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

A

1

... chemistry for the environment

Lab Certificati	on No.	8160793	330		
Location :	C.O.D.	LESTER	PAR	GULF COUR	SE
Your Sample ID:			•		
Sample Desc:	MW-1				
Sample Matrix :	WATER	1	Date	Collected:	05/03/1996
En Chem Proj# :	059601	1 1	Date	Received :	05/06/1996
En Chem Lab # :	500820	1	Date	Reported :	05/14/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

				Detection	Ргер	Prep	Analysis	Analysis	Analyzed
Aysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	Ву
	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		05/07/1996	WONR MOD GRO	05/07/1996	5 mdc
	Blank spike	97	% RECOV	50					
	Blank spike duplicate	. 100	% RECOV	50					
	Diesel Range Organics(DRO)-Water	ND	ug/l	100		05/08/1996	WONR MOD DRO	05/09/1990	5 DLP
	Blank spike	91	% RECOV	50					
1	Blank spike duplicate	86	% RECOV	50					
BTLX-W	Benzene	ND	ug/l	0.6	SW846 5030	05/07/1996	SW846 8020	05/07/199	6 mdc
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

٨

Corporate Office/Laboratory	horp G
1795 Industrial Drive • Green Bay, WI 54302 ()	Printed on Recycled Page
414-469-2436 • 800-736-2436 • FAX: 414-469-8827	PCA04-1489



... chemistry for the environment

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

Lab Certification No. 816079330 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-2 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500821 Date Reported : 05/14/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Anali ed B
GRO	Gasoline Range Organics(GRO)-Water	5700	ug/l	250		05/08/1996	WDNR MOD GRO	05/08/199/	
	Blank spike	97	% RECOV	50		•			- ""]
	Blank spike duplicate	100	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	460	ug/l	100		05/08/1996	WDNR MOD DRO	0.05/00/100/	5 D
	Blank spike		% RECOV			,,,-,-,-,-,-	NOR NOD DRU	, 03/07/1770	
	Blank spike duplicate		% RECOV						
BTEX-W	Benzene	220	ug/l	0.6	SW846 5030	05/07/1996	SW846 8020	05/07/1996	5 m
	Ethyl Benzene		ug/l	1.0			0.0000000000	0,01,17	
	Toluene		ug/l	1.0					_
	Xylenes, m + p		ug/l	1.0					
	Xylene, o		ug/l	1.0					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory 1795 Industrial Drive • Green Bay, WI 54302 414-469-2436 • 800-736-2436 • FAX: 414-469-882	Jag.	Thom		Printed on Recycled P
+1+-+07-2430 * 800-730-2430 * FAX. 414-409-88.	61	PC	A04-1490	

	•
EN GH	EM INC.

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420

Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

... chemistry for the environment

Lab Certificat	ion No.	816079330
Location	: C.O.D.	LESTER PARK GULF COURSE
Your Sample ID):	
Sample Desc.	: MW-3	
Sample Matrix	: WATER	Date Collected: 05/03/1996
En Chem Proj#	: 0596011	Date Received : 05/06/1996
En Chem Lab #	: 500822	Date Reported : 05/14/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

A 	ysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
۲.		Gasoline Range Organics(GRO)-Water	ND .	ug/l	50		05/07/1996	WDNR MOD GRO	05/07/199	6 mdc
		Blank spike	97	% RECOV	50					
		Blank spike duplicate	100	% RECOV	50					
D		Diesel Range Organics(DRO)-Water	ND	ug/l	100		05/08/1996	WONR MOD DRO	05/09/199	6 DLP
		Blank spike	91	% RECOV	50				,,,	
		Blank spike duplicate	86	% RECOV	50					
£	:- W	Benzene	ND	ug/l	0.6	SW846 5030	05/07/1996	SW846 8020	05/07/199	6 mcic
		Ethyl Benzene	ND	ug/l	1.0				,,	
		Toluene	ND	ug/l	1.0					
		Xylenes, m + p	ND	ug/l	1.0					
	ļ	Xylene, o	ND	ug/l	1.0					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory	Min. 1	hon-	-
1795 Industrial Drive • Green Bay, WI 54302 📿	57		Printed on Recycled Pape
414-469-2436 • 800-736-2436 • FAX: 414-469-8827	J		_
·		PCA04-1491	1

ENCHEM	
--------	--

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-4 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500823 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysîs Method	Analysis Date	Ana l'ed B
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		05/07/1996	WDNR MOD GRO	05/07/1996	5 m ili
	Blank spike	97	% RECOV	50					
	Blank spike duplicate	100	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		05/08/1996	WDNR MOD DRO	05/09/1996	5 D
	Blank spike	91	% RECOV	50					
	Blank spike duplicate	86	% RECOV	50					_
465	Acetone	ND	ug/l	25	SW846 5030	05/08/1996	MN-465E	05/08/1996	5 * B
	Allyl chloride	ND	ug/l	10					
	Benzene	ND	ug/l	1.0					-
	Bromobenzene	ND	ug/l	1.0					
	Bromochloromethane	ND	ug/l	1.0					
	Bromodichloromethane	ND	ug/l	1.0					
	Bromoform	ND	ug/l	1.0					
	Bromomethane	ND	ug/l	1.0					
	2-Butanone	ND	ug/l	25					
	n-Butylbenzene	ND	ug/l	1.0					
	sec-Butylbenzene	ND	ug/l	1.0					
	tert-Butylbenzene	ND	ug/l	1.0					
	Carbon tetrachloride	ND	ug/l	1.0					_
	Chlorobenzene	ND	ug/l	1.0					
	Chlorodibromomethane	ND	ug/l	1.0					
	Chloroethane	ND	ug/l	1.0					
	Chloroform	ND	ug/l	1.0					
	Chloromethane	ND	ug/l	1.0					
	2-Chlorotoluene	ND	ug/l	1.0	•				_
	4-Chlorotoluene	ND	ug/l	1.0					-
	1,2-Dibromo-3-chloropropane	ND	ug/l	1.0					
	1,2-Dibromoethane	ND	ug/l	1.0					
			15						

PCA04-1492

... chemistry for the environment



Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-4 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500823 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

				Detection	Ргер	Ргер	Analysis	Analysis A	Analyzed
ysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	Ву
	Dibromomethane	ND	ug/l	1.0	SW846 5030	05/08/1996	MN-465E	05/08/1996	*EGB
	1,2-Dichlorobenzene	ND	ug/l	1.0					
	1,3-Dichlorobenzene	ND	ug/l	1.0					
	1,4-Dichlorobenzene	ND	ug/l	1.0					1
	Dichlorodifluoromethane	ND	ug/l	1.0					
-	1,1-Dichloroethane	ND	ug/l	1.0					
_	1,2-Dichloroethane	ND	ug/l	1.0					
	1,1-Dichloroethene	ND	ug/l	1.0	-				
	cis-1,2-Dichloroethene	ND	ug/l	1.0					
	trans-1,2-Dichloroethene '	ND	ug/l	1.0					
	Dichlorofluoromethane	ND	ug/l	1.0					
	1,2-Dichloropropane	ND	ug/l	1.0					
-	1,3-Dichloropropane	ND	ug/l	1.0					
	2,2-Dichloropropane	ND	ug/l	1.0					
	1,1-Dichloropropene	ND	ug/l	1.0					
	cis-1,3-Dichloropropene	ND	ug/l	1.0					
	trans-1,3-Dichloropropene	ND	ug/l	1.0					.
	Ethyl Benzene	ND	ug/l	1.0					
	Ethyl Ether	ND	ug/l	5.0					i
	Hexachlorobutadiene	ND	ug/l	1.0					
	Isopropylbenzene	ND	ug/l	1.0					
	p-Isopropyltoluene	ND	ug/l	1.0					
	4-Methyl-2-pentanone	ND	ug/l	25					.
	Methyl-tert-butyl-ether	ND	ug/l	1.0					
	Methylene chloride	ND	ug/l	1.0	•				
	Naphthalene	ND	ug/l	1.0					
	n-Propylbenzene	ND	ug/l	1.0	•				
. 1	Styrene	ND	ug/l	1.0					
	1,1,1,2-Tetrachloroethane	ND	ug/l	1.0					
_	1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					



Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-4 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500823 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Anal Bed
465	Tetrachloroethene	ND			CU8/6 E070				
	Tetrahydrofuran		ug/l	1.0	SW846 5030	05/08/1996	MN-402E	05/08/1996	, *∎8
	Toluene	ND	ug/l	25					
		ND	ug/l	1.0					
	1,2,3-Trichlorobenzene	ND	ug/l	1.0					
	1,2,4-Trichlorobenzene	ND	ug/l	1.0					
	1,1,1-Trichloroethane	ND	ug/l	1.0					
	1,1,2-Trichloroethane	ND	ug/l	1.0					
	Trichloroethene	ND	ug/l	1.0	•				
	Trichlorofluoromethane	ND	ug/l	1.0					
	1,2,3-Trichloropropane	ND	ug/l	1.0					
	Trichlorotrifluoroethane	ND	ug/l	1.0					-
	1,2,4-Trimethylbenzene	ND	ug/l	1.0					
	1,3,5-Trimethylbenzene	ND	ug/l	1.0					
	Vinyl chloride	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Dibromofluoromethane(SS)	97	%Recov	0.5					
	Toluene-d8(SS)	106	%Recov	0.5					
	4-Bromofluorobenzene(SS)	84	%Recov						

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory
1795 Industrial Drive • Green Bay, WI 54302
414-469-2436 • 800-736-2436 • Fax: 414-469-8827



... chemistry for the environment

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-5 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500824 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

An

	Parameter Gasoline Range Organics(GRO)-Water Blank spike	Result 	Units	Limit	Method	Date	Method	Date	Ву
		ND							
	Rlank snike		ug/l	50		05/07/1996	WONR MOD GRO	05/07/1996	mdc
		97	% RECOV	50					
	Blank spike duplicate	100	% RECOV	50					
þ i	Diesel Range Organics(DRO)-Water	ND	ug/l	· 100		05/08/1996	WONR MOD DRO	05/09/1996	DLP
-	Blank spike	91	% RECOV	50					
	Blank spike duplicate	86	% RECOV	. 50					
55 .	Acetone	ND	ug/l	25	SW846 5030	05/08/1996	MN-465E	05/08/1996	*EGB
	Allyl chloride	ND	ug/l	10					
	Benzene	ND	ug/l	1.0					
	Bromobenzene	ND	ug/l	1.0					
	Bromochloromethane	ND	ug/l	1.0					
	Bromodichloromethane	ND	ug/l	1.0					
	Bromoform	ND	ug/l	· 1.0					
-	Bromomethane	ND	ug/l	1.0					
	2-Butanone	ND	ug/l	25					
	n-Butylbenzene	ND	ug/l	1.0					
	sec-Butylbenzene	ND	ug/l	1.0					
	tert-Butylbenzene	ND	ug/l	1.0					
	Carbon tetrachloride	. ND	ug/l	1.0					
	Chlorobenzene	ND	ug/l	1.0					
	Chlorodibromomethane	ND	ug/l	1.0					
	Chloroethane	ND	ug/l	1.0					
	Chloroform	ND	ug/l	1.0					
	Chloromethane	ND	ug/l	1.0					
	2-Chlorotoluene	ND	ug/l	1.0	•				
	4-Chlorotoluene	ND	ug/l	1.0					
	1,2-Dibromo-3-chloropropane	ND	ug/l	1.0					•
-	1,2-Dibromoethane	ND	ug/l	1.0					



Lab Certifica	tion No.	405132750
Location	: C.O.D.	LESTER PARK GULF COURSE
Your Sample II	D:	· · ·
Sample Desc.	: MW-5	
Sample Matrix	: WATER	Date Collected: 05/03/1996
En Chem Proj#	: 059601	1 Date Received : 05/06/1996
En Chem Lab #	: 500824	Date Reported : 05/16/1996

... chemistry for the environment

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analysed By
465	Dibromomethane	ND	ug/l	1.0	SW846 5030	05/08/199		05/08/1996	*:
	1,2-Dichlorobenzene	ND	ug/l	1.0					
	1,3-Dichlorobenzene	ND	ug/l	1.0			•		-
	1,4-Dichlorobenzene	ND	ug/l	1.0					
	Dichlorodifluoromethane	ND	ug/l	1.0					
	1,1-Dichloroethane	ND	ug/l	1.0					
	1,2-Dichloroethane	. 1.6	ug/l	1.0					
	1,1-Dichloroethene	ND	ug/l	1.0					
	cis-1,2-Dichloroethene	ND	ug/l	1.0					
	trans-1,2-Dichloroethene	ND	ug/l	1.0					
	Dichlorofluoromethane	ND	ug/l	1.0					
	1,2-Dichloropropane	ND	ug/l	1.0					
	1,3-Dichloropropane	ND	ug/l	1.0					
	2,2-Dichloropropane	ND	ug/l	1.0					
	1,1-Dichloropropene	ND	ug/l	1.0					
	cis-1,3-Dichloropropene	ND	ug/l	1.0					
	trans-1,3-Dichloropropene	ND	ug/l	1.0					
	Ethyl Benzene	ND	ug/l	1.0					
	Ethyl Ether	ND	ug/l	5.0					
	Hexachlorobutadiene	ND	ug/l	1.0					-
	Isopropylbenzene	ND	ug/l	1.0					
	p-Isopropyltoluene	ND	ug/l	1.0					
	4-Methyl-2-pentanone	ND	ug/l	25					
	Methyl-tert-butyl-ether	ND	ug/l	1.0					
	Methylene chloride	ND	ug/l	1.0		• •			a ta se
	Naphthalene	ND	ug/l	1.0					
	n-Propylbenzene	ND	ug/l	1.0	•				
	Styrene	ND	ug/l	1.0					
	1,1,1,2-Tetrachloroethane	ND	ug/l	1.0					·
	1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					

0



... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-5 Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500824 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

lysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
	Tetrachloroethene	ND	ug/l	1.0	SW846 5030	05/08/1996	MN-465E	05/08/1996	*EGB
i	Tetrahydrofuran	ND	ug/l	25					
	Toluene	ND	ug/l	1.0					
	1,2,3-Trichlorobenzene	ND	ug/l	1.0					
	1,2,4-Trichlorobenzene	ND	ug/l	1.0					
l	1,1,1-Trichloroethane	ND	ug/l	1.0					
	1,1,2-Trichloroethane	ND	ug/l	1.0					
I	Trichloroethene	ND	ug/l	1.0					
	Trichlorofluoromethane	ND	ug/l	1.0					
	1,2,3-Trichloropropane	ND	ug/l	1.0					
	Trichlorotrifluoroethane	ND	ug/l	1.0					
	1,2,4-Trimethylbenzene	ND	ug/l	1.0					
	1,3,5-Trimethylbenzene	ND	ug/l	1.0					
1	Vinyl chloride	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Dibromofluoromethane(SS)		%Recov	0.5					
	Toluene-d8(SS)	107	%Recov	0.5					
ŀ	4-Bromofluorobenzene(SS)	84	%Recov	0.5					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory 1795 Industrial Drive • Green Bay, W1 54302 414-469-2436 • 800-736-2436 • FAX: 414-469-8827



Lab Certification M	lo. 405132750		
Location : C.C	D.D. LESTER PAR	K GULF COUR	SE
Your Sample ID:			
Sample Desc. : MW-	5 DUPLICATE		
Sample Matrix : WAT	ER Date	Collected:	05/03/1996
En Chem Proj# : 059	06011 Date	Received :	05/06/1996
En Chem Lab # : 500)825 Date	Reported :	05/16/1996

... chemistry for the environment

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

			Analysis Analysid						
Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	By
465	Acetone	ND	ug/l	25	SW846 5030	05/08/1996	MN-465E	05/08/1996	*8
	Allyl chloride	ND	ug/l	10					
	Benzene	ND	ug/l	1.0					
	Bromobenzene	ND	ug/l	1.0					_
	Bromochloromethane	ND	ug/l	1.0					
	Bromodichloromethane	ND	ug/l	1.0					
	Bromoform	ND	ug/l	1.0					
	Bromomethane	ND	ug/l	1.0					
	2-Butanone	ND	ug/l	25					
	n-Butylbenzene	ND	ug/l	1.0					
	sec-Butylbenzene	ND	ug/l	1.0					-
	tert-Butylbenzene	ND	ug/l	1.0					
	Carbon tetrachloride	ND	ug/l	1.0					
	Chlorobenzene	ND	ug/l	1.0					
	Chlorodibromomethane	ND	ug/l	1.0					
	Chloroethane	ND	ug/l	1.0					
	Chloroform	ND	ug/l	1.0					
	Chloromethane	ND	ug/l	1.0					
	2-Chlorotoluene	ND	ug/l	1.0					
	4-Chlorotoluene	ND	ug/l	1.0					
	1,2-Dibromo-3-chloropropane	ND	ug/l	1.0					_
	1,2-Dibromoethane	ND	ug/l	1.0					
	Dibromomethane	ND	ug/l	1.0					
· . ·	1,2-Dichlorobenzene	ND	ug/l	1.0					
	1,3-Dichlorobenzene	ND	ug/l	1.0					
	1,4-Dichlorobenzene	ND	ug/l	1.0					
	Dichlorodifluoromethane	ND	ug/l	1.0					
	1,1-Dichloroethane	ND	ug/l	1.0					
	1,2-Dichloroethane		6 ug/l	1.0					•
·	1,1-Dichloroethene	ND	ug/l	1.0					



2231 Catlin Avenue, Suite 420

Superior, WI 54880

FAX: 715-392-5843

715-392-5844

800-837-8238

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : MW-5 DUPLICATE Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500825 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

oethene oroethene ethane pane pane pane pene opropene oropropene	ND ND ND ND ND ND	ug/l ug/l ug/l ug/l ug/l ug/l	1.0 1.0 1.0 1.0 1.0	sw846 5030	05/08/1996	MN-465E	05/08/1996	By *EGB
oroethene ethane pane pane pane pene opropene	ND ND ND ND ND	ug/l ug/l ug/l ug/l ug/l	1.0 1.0 1.0 1.0	SW846 5030	US/U8/1996	MN-465E	U5/08/1996	*EGB
ethane pane pane pane pene opropene	ND ND ND ND	ug/l ug/l ug/l ug/l	1.0 1.0 1.0					
pane pane pane pene opropene	ND ND ND ND	ug/l ug/l ug/l	1.0 1.0					
pane pane pene opropene	ND ND ND	ug/l ug/l	1.0					
pane pene opropene	ND ND	ug/l						
pene opropene	ND	-						
opropene			1.0					
• •		ug/l	1.0					
propropene	ND	ug/l	1.0					
	ND	ug/l	1.0					
	ND	ug/l	1.0					
	ND	ug/l	5.0					
iene	ND	ug/l	1.0					
e	ND	ug/l	1.0					
ene	ND	ug/l	1.0	•				
anone	ND	ug/l	25					
yl-ether	ND	ug/l	1.0					
ide	ND	ug/l	1.0					
	ND	ug/l	1.0					
	ND	ug/l	1.0					
	ND	ug/l	1.0					
loroethane	ND	ug/l	.1.0					
loroethane								
ne								
benzene		-						
etnane								
	ne	ne ND ND Denzene ND benzene ND ethane ND	he ND ug/l ND ug/l ND ug/l benzene ND ug/l benzene ND ug/l ethane ND ug/l	NDug/l1.0NDug/l25NDug/l1.0benzeneNDug/l1.0benzeneNDug/l1.0bethaneNDug/l1.0ethaneNDug/l1.0	he ND ug/l 1.0 ND ug/l 25 ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 ethane ND ug/l 1.0 ug/l 1.0	he ND ug/l 1.0 ND ug/l 25 ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0	he ND ug/l 1.0 ND ug/l 25 ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 ethane ND ug/l 1.0	he ND ug/l 1.0 ND ug/l 25 ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 benzene ND ug/l 1.0 ethane ND ug/l 1.0

0



Lab Certificat	ion No.	405132750	
Location	: C.O.D.	LESTER PARK GULF COURSE	
Your Sample ID	:		
Sample Desc.	: MW-5 DL	PLICATE	
Sample Matrix	: WATER	Date Collected: 05	5/03/1996
En Chem Proj#	: 0596011	Date Received : 05	5/06/1996
En Chem Lab #	. 500825	Date Reported . Of	14/1004

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

A

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Anal Bed B
465	Trichlorofluoromethane	ND	ug/l	1.0	SW846 5030	05/08/1990	5 MN-465E	05/08/1996	5 * 111 8
	1,2,3-Trichloropropane	ND	ug/l	1.0				• •• ••	
	Trichlorotrifluoroethane	ND	ug/l	1.0					
	1,2,4-Trimethylbenzene	ND	ug/l	1.0					
	1,3,5-Trimethylbenzene	ND	ug/l	1.0					
	Vinyl chloride	ND	ug/l	1.0					Π,
	Xylene, o	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Dibromofluoromethane(SS)	98	%Recov	0.5					
	Toluene-d8(SS)	105	%Recov	0.5					-
	4-Bromofluorobenzene(SS)	84	%Recov	0.5					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory	
1795 Industrial Drive • Green Bay, WI 54302	
414-469-2436 • 800-736-2436 • FAX: 414-469-8827	

PCA04-1500

С

... chemistry for the environment



...chemistry for the environment

ab Certification No. 40513	2750
ocation : C.O.D. LESTE	R PARK GULF COURSE
four Sample ID:	
Sample Desc. : TRIP BLANK	•
Sample Matrix : WATER	Date Collected: 05/03/1996
En Chem Proj# : 0596011	Date Received : 05/06/1996
En Chem Lab # : 500826	Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

- - -

lysis	Parameter	Result		Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		05/07/1996	WDNR MOD GRO	05/07/1996	mdc
	Blank spike	97	% RECOV	50					
	Blank spike duplicate	100	% RECOV	50					
	Acetone	ND	ug/l	25	SW846 5030	05/08/1996	MN-465E	05/08/1996	5 *EGB
	Allyl chloride	ND	ug/l	10					
	Benzene	ND	ug/l	1.0					,
	Bromobenzene	ND	ug/l	1.0					
	Bromochloromethane	ND	ug/l	1.0					
	Bromodichloromethane	ND	ug/l	1.0					
1	Bromoform	ND	ug/l	1.0					
	Bromomethane	ND	ug/l	1.0					
•	2-Butanone	ND	ug/l	25					
1	n-Butylbenzene	ND	ug/l	1.0					
	sec-Butylbenzene	ND	ug/l	1.0					
l	tert-Butylbenzene	ND	ug/l	1.0					
_	Carbon tetrachloride	ND	ug/l	1.0					
	Chlorobenzene	ND	ug/l	1.0					
	Chlorodibromomethane	ND	ug/l	1.0					
	Chloroethane	ND	ug/l	1.0					
l	Chloroform	ND	ug/l	1.0					
	Chloromethane	ND	ug/l	1.0					
	2-Chlorotoluene	ND	ug/l	1.0					
	4-Chlorotoluene	ND	ug/l	1.0					
	1,2-Dibromo-3-chloropropane	ND	ug/l	1.0					
	1,2-Dibromoethane	ND	ug/l	1.0					
	Dibromomethane	ND	ug/l	1.0	•				
1	1,2-Dichlorobenzene	ND	ug/l	1.0					
	1,3-Dichlorobenzene	ND	ug/l	1.0					•
	1,4-Dichlorobenzene	ND	ug/l	1.0					

0



• • •	~		•
chemistr	i tor	the	environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : TRIP BLANK Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500826 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

A 1 2 -	D			Detection	•	Ргер	Analysis	-	Anat
Analysis	Parameter	Result	Units	Limit	Method	Date	Method	Date	E
465	Dichlorodifluoromethane	ND	ug/l	1.0	SW846 5030	05/08/199	6 MN-465E	05/08/1996	* # B
	1,1-Dichloroethane	ND	ug/l	1.0					
	1,2-Dichloroethane	ND	ug/l	1.0					
	1,1-Dichloroethene	ND	ug/l	1.0					_
	cis-1,2-Dichloroethene	ND	ug/l	1.0					
	trans-1,2-Dichloroethene	ND	ug/l	1.0					
	Dichlorofluoromethane	ND	ug/l	1.0					
	1,2-Dichloropropane	ND	ug/l	1.0					
	1,3-Dichloropropane	ND	ug/l	1.0					
	2,2-Dichloropropane	ND	ug/l	1.0					-
	1,1-Dichloropropene	ND	ug/l	1.0					-
	cis-1,3-Dichloropropene	ND	ug/l	1.0					
	trans-1,3-Dichloropropene	ND	ug/l	1.0					
	Ethyl Benzene	ND	ug/l	1.0					_
	Ethyl Ether	ND	ug/l	5.0					
	Hexachlorobutadiene	ND	ug/l	1.0					
	Isopropylbenzene	ND	ug/l	1.0					
	p-Isopropyltoluene	ND	ug/l	1.0					
	4-Methyl-2-pentanone	ND	ug/l	25					
	Methyl-tert-butyl-ether	ND	ug/l	1.0					_
	Methylene chloride	ND	ug/l	1.0					_
	Naphthalene	ND	ug/l	1.0					
	n-Propylbenzene	. ND	ug/l	1.0					
	Styrene	ND	ug/l	1.0				-	
	1,1,1,2-Tetrachloroethane	ND	ug/l	1.0					
	1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
	Tetrachloroethene	ND	ug/l	1.0					
	Tetrahydrofuran	ND	ug/l	25					
	Toluene	ND	ug/l	1.0					·
	1,2,3-Trichlorobenzene	ND	ug/l	1.0					



Lab Certification No. 405132750 Location : C.O.D. LESTER PARK GULF COURSE Your Sample ID: Sample Desc. : TRIP BLANK Sample Matrix : WATER Date Collected: 05/03/1996 En Chem Proj# : 0596011 Date Received : 05/06/1996 En Chem Lab # : 500826 Date Reported : 05/16/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

lysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
	1,2,4-Trichlorobenzene	ND	ug/l	1.0	SW846 5030	05/08/1996	MN-465E	05/08/199	6 *EGB
	1,1,1-Trichloroethane	ND	ug/l	1.0					
	1,1,2-Trichloroethane	ND	ug/l	1.0					
	Trichloroethene	ND	ug/l	1.0					
	Trichlorofluoromethane	ND	ug/l	1.0					
,	1,2,3-Trichloropropane	ND	ug/l	1.0					
	Trichlorotrifluoroethane	ND	ug/l	1.0				•	
	1,2,4-Trimethylbenzene	ND	ug/l	1.0					
	1,3,5-Trimethylbenzene	ND	ug/l	1.0					
	Vinyl chloride	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Dibromofluoromethane(SS)	. 94	%Recov	0.5					
	Toluene-d8(SS)	105	%Recov	0.5					
	4-Bromofluorobenzene(SS)	85	%Recov	0.5					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity venified by:

Corporate Office/Laboratory /- 1795 Industrial Drive • Green Bay, WI 54302 414-469-2436 • 800-736-2436 • FAX: 414-469-8827

PCA04-1503

... chemistry for the environment

	Company N	ame: RSI pocation: Dutth	mN				 -	E	CHEM	Mail Report To:	Page of
		act: Brich J		~~						Company: RSE	
	elephone:	218 722					Dellemen	64 - 614	e 9 🔲 2231 Catlin Ave., Suite 420	Address:	
Pr	roject Numi	·				Gree	Bellevue n Bay, WI	54302	Superior, WI 54880		
Pr	oject Name	: Lestor Pe	rk Gulf	· Cou	rse	414-469-2 FAX	436 • 1-80 414-469-		436 715-392-5844 • 1-800-837-8238 FAX 715-392-5843	Invoice To:	
Pr	oject Local	tion: DUNA	, mN		• •		сна	TN	OF CUSTODY	Company: RST	
Sa	mpled By	(Print): Brim	S. No	svote	M					Address:	
1 · ·	1	rogram (circle): UST	National Action of the second se	P. SD	WA	NR720 Co	nfirmation	n Analys	is Required?		
	NPDES/WF	DES CAA NR_	Other			(En Chem	will confi	rm unles	s otherwise instructed.)		Quote No.: 2389
A. S.	Field ID	Sample Der	scription	Date -	ection 44	Field Matrix	Filt'd Y/N	Preserv*	Análysis Requested	Good Stotals Comme Cond. Bottles	
		53-7	3-10	21	10,00	So.	1	F	URD, DRO, BTEX, PD		500758
,		53-7	15-17	15 	1045			F	As Above		500759
		5B-8 5	5-7	5	1215	- 1 1-		1	As Above		DOAGD
			•			.					
		Trip Blan	415						BTEX GRO		- 50076
2	•						-				
	2	· · · · · · · · · · · · · · · · · · ·									
			······································								
									· ·		
			•	, ·							
	=None		H2SO4	hquished	31h	$\overline{)}$	•	Date/Tin	19-96 4:30 Hoceived By:	of sterson)	En Chem Project No.
D: G	=HN03 =NaOH,	E=EnCore F=N O=Other (Indicate)	Methanol** C	nquished	By:	Y	· ·	Date/Tin			Sample Receipt Temp. (Must be rec'd at 4°C)
	e vol	g En Chem's methani of methani adu ate samples.	ol, indi- I ma	aquished	By:	e toos		Date/Tim		En Chem):	نے ک ار کی ا



... chemistry for the environment

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844 800-837-8238 FAX: 715-392-5843

Lab Certification No. 816079330 Location : LESTER PARK GULF COURSE/MN En Chem Proj# : 0496040 Date Reported : 05/14/1996

Report to: REMEDIATION SERVICES INC

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Samples were received at a temperature of 6.2 degrees celcius. Recommended temperature of samples is between 0 and 4 degrees celcius. Samples were run at clients request.

The PQL for the BTEX analysis is 60 ug/kg for those samples with a dilution factor of 50. Detection limits are corrected for percent splids for those parameters that were detected.

Sample Nos. 500758 through 500760: Later eluting peaks outside DRO window.



Bill to:

Toluene

Xylene, o

Xylenes, m + p

Lab Certification No. 816079330 Location : LESTER PARK GULF COURSE/MN Your Sample ID: Sample Desc. : SB-7 8-10 Sample Matrix : SOIL Date Collected: 04/29/1996 En Chem Proj# : 0496040 Date Received : 04/29/1996 En Chem Lab # : 500758 Date Reported : 05/14/1996

... chemistry for the environment

Date

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

REMEDIATION SERVICES INC

Detection Prep Prep Analysis Analysis Analysis Parameter Result Units Limit Method Date Method TOTSOLID Total Solids 89 percent 0.0 EPA 160.3 04/30/1996 PB-S Lead, soil 05/03/1996 SW846 7421 7.2 mg/kg 3.7 SW846 3050 05/03/1996 GRO-S Gasoline Range Organics(GRO)-Soil ND mg/kg 2.8 05/01/1996 WDNR MOD GRO 05/01/1996 Soil spike 108 % RECOV 50 Soil spike duplicate 118 % RECOV 50 DRO-S Diesel Range Organics(DRO)-Soil ND mg/kg 4.2 04/30/1996 WDNR MOD DRO 05/01/1996 Soil spike 75 % RECOV 50 Soil spike duplicate 74 % RECOV 50 BTEX-S-ME Benzene ND ug/kg 25 05/01/1996 WDNR MOD GRO 05/01/1996 Ethyl Benzene ND ug/kg 25

ND

ND

ug/kg

ug/kg

32 ug/kg

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory 1795 Industrial Drive • Green Bay, WI 54302 414-469-2436 • 800-736-2436 • FAX: 414-469-8827 PCA04-1506

25

28

25

mdc

Duluth/Superior Laboratory 2231 Catlin Avenue, Suite 420 Superior, WI 54880 715-392-5844	Lab Certification No. 81607933 Location : LESTER PARK GUL Your Sample ID:
800-837-8238 FAX: 715-392-5843	Sample Desc. : SB-7 15-17 Sample Matrix : SOIL Da

Eņ

En

... chemistry for the environment

Certificat	ic	on No. 816079	9330		
ation	:	LESTER PARK	GULF (OURSE/MN	
ır Sample ID	:				
ple Desc.	:	SB-7 15-17			
ple Matrix	:	SOIL	Date	Collected:	04/29/1996
Chem Proj#	:	0496040	Date	Received :	04/29/1996
Chem Lab #	:	500759	Date	Reported :	05/14/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
TSOLID	Total Solids	77	percent	0.0			EPA 160.3	04/30/199	6 CLC
PB-S	Lead, soil	4.3	mg/kg	4.2	SW846 3050	05/03/1996	SW846 7421	05/03/199	6 *EGB
c -s	Gasoline Range Organics(GRO)-Soil	ND	mg/kg	3.0		05/01/1996	WONR MOD GRO	05/01/199	6 mdc
	Soil spike	108	% RECOV	50					
	Soil spike duplicate	118	% RECOV	50					r
DRU-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.2		04/30/1996	WDNR MOD DRO	05/01/199	6 DLP
_	Soil spike	75	% RECOV	50					
	Soil spike duplicate	74	% RECOV	50					
BTEX-S-ME	Benzene	ND	ug/kg	25		05/01/1996	WONR MOD GRO	05/01/199	6 mdc
	Ethyl Benzene	ND	ug/kg	25					
	Toluene ·	ND	ug/kg	25					
—	Xylenes, m + p	· ND	ug/kg	25					
	Xylene, o	ND	ug/kg	25					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by: ${\sf P}$

PCA04-1507

Ø

Corporate Office/Laboratory	ha
1795 Industrial Drive • Green Bay, WI 54302(30
414-469-2436 • 800-736-2436 • FAX: 414-469-882	



... chemistry for the environment

0

PCA04-1508

Lab Certification No. 816079330 Location : LESTER PARK GULF COURSE/MN Your Sample ID: Sample Desc. : SB-8 5-7 Sample Matrix : SOIL Date Collected: 04/29/1996 En Chem Proj# : 0496040 Date Received : 04/29/1996 En Chem Lab # : 500760 Date Reported : 05/14/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Anal ed B
TOT SOL ID	Total Solids	81	percent	0.0			EPA 160.3	04/30/1996	5 C
PB-S	Lead, soil	5.8	mg/kg	4.1	SW846 3050	05/03/1996	SW846 7421	05/0 3 /1996	5 *EGB
GRO-S	Gasoline Range Organics(GRO)-Soil	ND	mg/kg	3.3		05/01/1996	WDNR MOD GRO	05/01/1996	5 m
	Soil spike	108	% RECOV	50					
	Soil spike duplicate	118	% RECOV	50				-	_
DRO-S	Diesel Range Organics(DRO)-Soil	ND	mg/kg	4.6		04/30/1996	WONR MOD DRO	05/01/1996	5 D
	Soil spike	75	% RECOV	50					
	Soil spike duplicate	74	% RECOV	50					
BTEX-S-ME	Benzene	ND	ug/kg	25		05/01/1996	WONR MOD GRO	05/01/1990	6 mdc
	Ethyl Benzene	ND	ug/kg	25					
	Toluene	ND	ug/kg	25					
	Xylenes, m + p	ND	ug/kg	25					
	Xylene, o	ND	ug/kg	25					_

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory 1795 Industrial Drive • Green Bay, WI 54302 414-469-2436 • 800-736-2436 • FAX: 414-469-882	10-10	
1795 Industrial Drive • Green Bay, WI 54302	50.	
414-469-2436 • 800-736-2436 • FAX: 414-469-882	7	



... chemistry for the environment

0

PCA04-1509

ab Certificat	1	on No.	81607	9330			
ocation	:	LESTER	PARK	GULF	COURSE/MN		
our Sample ID	:						
Sample Desc.	:	TRIP BL	ANKS				
Sample Matrix	:	METHANC	L	Date	Collected	::	04/29/1996
En Chem Proj#)	Date	Received	:	04/29/1996
n Chem Lab #	:	500761		Date	Reported	:	05/02/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

ysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis . Date	Analyzed By
	Gasoline Range Organics(GRO)-Water	ND	ug/l	2500		05/01/1996	WONR MOD GRO	05/01/1996	mdc
	Blank spike	108	% RECOV	50				• • • • •	
	Blank spike duplicate	118	% RECOV	50					
(-W	Benzene	ND	ug/l	25	SW846 5030	05/01/1996	SW846 8020	05/01/1996	mdc
	Ethyl Benzene	ND	ug/l	25					
	Toluene	ND	ug/l	25					
	Xylenes, m + p	ND	ug/l	25					^
	Xylene, o	ND	ug/l	25		-			

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

4

These results have been reviewed and their authenticity verified by:

Corporate Office/Laboratory	an	Ilo
Corporate Office/Laboratory 1795 Industrial Drive • Green Bay, WI 543 14-469-2436 • 800-736-2436 • FAX: 414-469	02 (8827	
A 109 2450 000 100 2450 18X. 111 102		

Accurate Environmental Testing 2231 Catlin Avenue #420 Superior WI 54880

PHONE: (715) 392-5844 FAX: (715) 394-7414 (800) TEST-AET 837-8238

Bob Maslowksi Remediation Services Inc. 102 S. 29th Avenue W., Suit Duluth, MN 55806		Chain of Co Project Nar Client: Sampler N	me:	95121 Zester Parl RSI Timothy He		•
	Collected on	3/27/95	3/27/95	3/27/95	3/27/95	3/27/95
	Received on	3/30/95	3/30/95	3/30/95	3/30/95	3/30/95
	DRO Preserved on	3/30/95	3/30/95	3/30/95	3/30/95	NA
	DRO Extracted on	4/3/95	4/3/95	4/3/95	4/3/95	NA
	DRO Analyzed on	4/9/95	4/9/95	4/9/95	4/9/95	NA
	GRO Analyzed on	4/9/95	4/9/95	4/9/95	4/9/95	4/9/95
	Sample Description	SB-4 4.5'-6.5'	SB-4 14.5'-16.5'	SB-5 7-9	SB-6 7'-9'	Trip Blank
	Sample I.D.	1	2	3	4	5
	Lab I.D.	95121-01	95121-02	95121-03	95121-04	95121-05
Parameter	PQL	SOIL	SOIL	SOIL	SOIL	SOIL
% Moisture	NA	16%	15%	26%	12%	NA
Temperature	NA	on ice	on ice	on ice	on ice	on ice
Diesel Range Organics	10 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Gasoline Range Organics	10 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Benzene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Toluene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Ethylbenzene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Total Xylenes	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Comments	none	none	none	none	none	none

PQL indicates that practical quantitation limits were not met in analyses.

NA implies that this parameter was not analyzed or not applicable to test run

Filled out by:

4/11/95 4:12 PM

The following tests were performed according to the WI DRN specification listed in ch. NR 149 of the WI Adm. Code. WI DNR Certification # 816079330

. .

Date:

24 North 21st Avenue West Duluth, MN 55806-2017 (218) 727-6380



LABORATORY REPORT

MR JAY THOMPSON	LAB NO: 503217
ACCURATE ENVIRONMENTAL TESTING	AET C O C NO: 95121
2231 CATLIN AVENUE SUITE 420	PROJECT ID: CODLPGC95121
SUPERIOR WI 54880	DATE REC'D: Mar. 31, 1995
	REPORT DATE: Apr. 12, 1995

Soil Samples

Sample I.D.	Lead <u>(mg/Kg)</u>
SB-4 4.5-6.5 3/27/95, 1:40	13.3
SB-4 14.5-16.5 3/27/95, 2:45	9.0
SB-5 7-9 3/28/95, 9;04	13.0
SB-6 7-9 3/28/95, 11:17	5.9

ERA LABORATORIES, INC.

ver D. Mognuson いた Robert D. Magnuson

MN Certification #027-137-152

WI Certification #999446800

All results are reported on an "as received" basis.

لم بر ب			TE8	HONH TING	}			#981 #1111	920			NIN OF CUS / EQUEST F	AND .					J					ŢO	LL	FR	EE .	(日 (7	95 00) 15) 15)	TI 30	E81 92-	50	ET. 44
HURING HOLIGO			ST K Go					\$98	L CANDIER			ren J Here		2 OFF	5/	7		T	701.er)	y 5 5	;/		7	7	-7	7		7	7		HVA1	
	•				E		E		SAMPL SAMPLE		ENTIFIC Sauple HQ.	CATION Laboratory Ld. No.	- /8		are.	NOC INC	8 1	2	PCRA & METLU		3	8	[]	[4	4		Ł	10 E	Mary	Į	Ome
3	8	0 V		1740	¥				-4 4.5-6			-01	<u>v</u>	۲ 	2 2					-	-	-										
<u>ङ</u> २		v 1	3/27/95 3/29/95	2:45	-	ľ		SB- SB-	<u>4 14,5-16</u> 5 7-		·	-02						<u></u>	- - -	- -	-											
<u>,</u>	_	7	3/28/95	(1:17		Ľ		<u>5</u> B-	6 7-			-04		-	~	—		<u>/</u>		- -	-	-	-									
					-			<u> </u>	<u>`p</u>			- 05			 			- -	_ -		-		1-	_								
									`												- -	-		-								
		-				-	-		<u></u>				_						- 	- -	-	- -			<u>.</u> *							
													_		-							┦╴							•••			 1. 1
4-1512		-					╞		<u></u>		1						_		- -	- -	- -				, ,	-						
								· ·					_ _								-				-							
	 1				-		┦─		2								 ste / Tv	ne l	Atcelve		Fignaha	10)			<u>[</u>]	ECKI	IERE F		a bait	•		
lin	rat	Thy	1/6	u			1 1 m	31	etved by: (Signatu DUV (stred by: (Signati	V.E	Erre	Reported by: (5%	yaalare)			D	ia 10 / Ti		Receive						_	INIVI	oulip	int India	itani	uto: ,		
			par 1		- 1	•	́		6# øh	1		UL V		U		0	į.	.							_ I q	tr af	OUR	:0: 		-	-	

.

				ENV	6TIN 2231	IG - L CF	TL:	EN :	SUITE 5488		۱ _۲ ۲	N CTTCL	AND										TO	LL	FRI Li	AB	2 <i>ni</i> (80 (71	d d 20) 15)	TE 39	verse ST-1 2-5 4-7	
	CLIEN	r:	Æ	T						SAMPLER	Tim	Heren	<u> </u>		7	BILL	ING	:			•		•			•			1, 4	-	
	PROJE	-		<u>ic</u> c	2512	21				SAMPLER SIGNATURE:				/	7	7	7	T	Τ	T	7	7	7	7	7	.7	7	7	7		· ·
	REPOR TO BE SENT T	ITS		. 7			\sim	\sim		REMARKS:	<u> </u>	·		7	/		/ /		.	<u>ع</u> م	/	/ .	1		$\left \right $	/	/ /	.		SERV	
	SENT T	<u>°</u> 	Γ	$\overline{\boldsymbol{\Gamma}}$			ATF			SAMPLE ID	ENTIFI	CATION	17	1	/ /		[]]	8	BHE			رم بر س	' /	' /			/	/	/.	1:1	
	NO. OF CONTAINERS	Ser Ser	R	DATE	TIME	WATER	Б	OTHER	S	AMPLE	SAMPLE NO.		7/5	?/8	Brey	VOC 100		Pb (Dest of	ACRA & METAL	ရှိဖြ	?/~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	80/8	/	[/ /	$\left \right $	/ /	<u> </u> 2	\ <u>`</u>	10 × 10	onter
-1	1	1	X	3/27/45	1:40		X			4.5-6.5	-01	•	-					x		ſ						·				X	
-2	1	1	X	3/27/95	2:45		x	1 1		H.S-165	-02							X							÷					X	
-3	1		X	3/18/95	9:04	'	X			7-9	-03							X		ŀ			·							<u> x</u>	
-4	1			3/28/93			x		58-6	7-9	-04							X												X	<u> </u>
ſ								·											·					_		-	-	-		<u> </u>	
									•											ļ		_			_	_		_	_	<u> </u>	
																		_				_		_		_	_	_		\bot	
		-						_								<u> </u>	_	_					-	-+				_	+-	╇┻┙	
								-		•	 	<u></u>			\dashv	_						_	\rightarrow	_+	_					╉━┥	
							_			<u></u>			_	_	-	_					_			_					+-	+-1	
								_				·····	-				_			 		-	-				+-		+-	┼─┤	
			_				_	_	·						-												┽	╋	+-	┼─┤	
								_			·				_			+		$\left - \right $		-	-+	-+-	+	┿		+	┿	┾┯┥	
						$\left - \right $		╧╋	<u> </u>				-		<u> </u>	\rightarrow	╉		┼─			-+	-+	-+		╉		+	┿	┼╌┤	
	Relinquist	ed by: (Signatu	re)	•		ale / Ti	ine	Received	by: (Signature)		Relinquished by: (Sign	ature)	<u> </u>	╧╋	Orte	/ Time	Re	ceived b	y: (Sign	ahre)				CHEC	K HEAI	E FOR	ORINI	 (1)\G		
ł	<u>Kach</u> Rainquist			<u>hree</u>		_	/ <u>7 / </u> .te / fi		Received	sa Jarald	in	Relinquished by: (Sign	ature)		\rightarrow	Date	/ Tene	Re	d bavie;	r: (Sign	ature)								URED:	<u>. ••••••</u>	
	Cente	nts	Tenp	eratur						enit en		· ·												-	-	-			rush		
; 								R.		n to 4		560: M 58	12- 2-1	1										[DATE	<u>REQUI</u>	<u>rue D:</u>	M	13		J

PCA04-1513

į

11/127

Accurate Environmental Testing 2231 Catlin Avenue #420 Superior WI 54880

 $(1,\ldots,1,2,1) \in \mathbb{R}^{n}$

PHONE: (715) 392-5844 🔶 FAX: (715) 394-7414 🔶

(800)TEST-AET 837-8238

Remediation Services, Inc. 102 South 29th Avenue West. Suite 100 Duluth, MN 55806

Chain of Custody # 94357 Lester Park G.C. Project Name: Client: City of Duluth Sampler Name: **Timothy Heren** • • •

			1	••	· · · ·	
••	Collected on	12/7/94	12/7/94	12/7/94	12/7/94	NA
	Received on	12/9/94	12/19/94	12/9/94	12/9/94	12/9/94
	DRO Preserved on	12/9/94	12/9/94	12/9/94	12/9/94	NA
	DRO Extracted on	12/19/94	12/19/94	12/19/94	12/19/94	NA
	DRO Analyzed on	12/22/94	12/22/94	12/22/94	12/22/94	NA
	GRO/PVOC Analyzed on	12/21/94	12/22/94	12/22/94	12/22/94	12/22/94
	Sample Description	SB-1	SB-2	SB-3	SB-3	Trip Blank
	Sample I.D.	6-8'	10-12	6-8'	14-16	МеОН
	Lab I.D.	1673	1674	1675	1676	1677
Parameter	PQL	SOIL	SOIL	SOIL	SOIL	MeOH
% Moisture	NA	10%	18%	11%	15%	NA
Temperature	NA	on ice	on ice	on ice	on ice	on ice
Diesel Range Organics	10 mg/kg	< PQL	< PQL	< PQL	< PQL	NA
Gasoline Range Organics	10 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
МТВЕ	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Benzene	0.050 mg/kg	< PQL	< PQL	< PQL	0.83 mg/kg	< PQL
Toluene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Ethylbenzen	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Total Xylenes	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
1,3,5-Trimethylbenzene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
1,2,4-Trimethyibenzene	0.050 mg/kg	< PQL	< PQL	< PQL	< PQL	< PQL
Comments	none	none	none	none	none	none

PQL indicates that practical quantitation limits were not met in analyses.

NA implies that this parameter was not analyzed or not applicable to test run

Filled out by:

Date:

12/30/94 11:05 AM

The following tests were performed according to the WI DRN specification listed in ch. NR 149 of the WI Adm. Code. WI DNR Certification # 816079330

	(NG 31 0	AT	LIN	SUITE 3480				EQUEST	A F	ND	AN	ALY	SIS	כוא		•	· · ·		_	-	FRI	EE AB	(71	0) 5)	TES 392	ST-AE 2-584 1-741	44
	2	ENT: A	<u>-</u> 1 <u>8</u> 1	~				<u> </u>		SAMPLER MULE:	me	Les	en				BI	LLIN DRES	G S :								•					
••	770	DD	۶K	ST	•			-		SAUPLER SIGNATURE:					<u> </u>	7	7		7	7	7	7	T	7	7	7	7	7	7	7		
	REP TO B SEM		q	u/	Hon	nA	10,	$\overline{\mathcal{N}}$		REMARKS:					/	7 /	' /			A Republic	BOD ON CRITICS	่ล/	ر/	/		/ /	.	' /	F	PRES		<u>Me</u> 7
	HQ. OF			Γ	Τ		-	RIX		SAMPLE		-			7	/) 59 29		8/: ;/;	¥/3		/2 8	//	//	/		/ /	/ ,			/5
	· 28	8	3	DATE			ğ	e de la	S.	AMPLE	SAUP NO.		LABORATORY LD. NO.		0 0 0	8/	<u>9</u> /3	<u> }{</u>				8/4	<u>§/</u>	\square	4	\square	_/		<u>e/</u>	10°	<u> = </u>	<u>Ř</u>
					10:45		K	$\left - \right $	SB-1	10-8'		-	~	$ \rightarrow $		_ <u> </u> .	·		Ϋ́					_	$\left - \right $				+	╄┥	·	_
		+		Hipy Hipy	11:32		<u>х</u>	T	<u>Sb-7</u> Sb-3	10-12' 6-8'			رب ع			╋	+	$\left - \right $	$\frac{X}{X}$	+			$\left - \right $			+			┢	$\left - \right $	·	\exists
		$\left - \right $			": <u>-</u>] 11:50		$\frac{\lambda}{\lambda}$		<u>-10-5</u> Sb-3	14-16'		+	ت لمب *	<u> </u>	-			┠╼╼┨	$\frac{2}{\chi}$	+	+-	+		-	-+	+	+	1		╞╌┼		-
						\Box				<i>(w</i> _						1				T					ŀ		T				•	
						\square	\downarrow					 	······										\square				<u> .</u>		_		-	
			+				+							+-			$\left - \right $	_		+								$\left - \right $	-+	+	-	-
ł			╉			-	┽	╋						╋	+-		┝━╋	┽		┼─	$\left - \right $		+	÷					╉	╋	-{	{
PCA04-151		╈	╈			╈	\dagger	╋						╋	+				- -	\uparrow				╋	\uparrow	\uparrow			十	╈	+	1
04-15			T				T						······································	·															T	T]
515	_						╇	-				•		-			_					<u> </u>							_	+		-
	-+		╉				╋			•				-	$\left - \right $					-				╋		 		+	+	+-	┼──	}
	-		╋				╀	╉─						-	$\left - \right $	÷							+	╞	╀			+	╈	┥╴		
7	Saw			sori	5	000 12-1 1-1	11-7	14 m	Received by:	al Well		Rein Pe	ch Ulh	ure)	-		0416 12/14 10	1.4 . 06	Reco	ived by	: (Sgre	hre)			Cr W	ECK H	1 CCD	R ORIN	KING TS		ľ	
	References						/ 1im	•	Mris.	<i>// · · ·</i>	2-H-9 1 10:11	Retai	gulshed by: (Synak '	une)				Time	Prece	ived by	: (Sipnal	~~)]~	-		HE AEC				. ~ .
[Conte	المجاري المرير	-	ralure					Conneni Sample	t oh Condition:					•										Lev	IT REOS	ARED.					
		C			Ref	er	4	D	Quo	te # 5	83	7	C						<u>م:</u> ٢	:							••••		3			

.

.



LABORATORY REPORT

Mr. Jay Thompson Accurate Environmental Testing 2231 Catlin Avenue, Suite 420 Superior, WI 54880

LAB NO:	412091
DATE REC'D:	12/14/94
REPORT DATE:	12/21/94

Soil Samples

Sample I.D.	Lead <u>(mg/Kg)</u>
SB-1 6-8' 12/07/94, 10:45	9.3
SB-2 10-12' 12/07/94, 10:05	12
SB-3 6-8' 12/07/94, 11:32	5.5
SB-3 14-16' 12/07/94, 11:50	11
Temp. Upon Arrival	iced

All results are reported on an "as received" basis.

ERA LÁBORATORIES, INC. Robert D. Magnuson

MN Certification #027-137-152

WI Certification #999446800

	1			ENVI TEE	RATE IRONM 3TING 2231 SUPER	ien) că	TLI	KN (AIN OF COS A IEQUEST FO	ND										T	TOL		Lf	18	(7	15)) 1 3	92-	-58	344
	CLIENT: C.J. PROJEC L.E REPORT TO BE SENT TO	of TID: 54e	÷ () <u>ulu</u> Port	th < Gol	F C	600	215	ę	SAMPLER IVANE: Tim SAMPLER SIGNATURE: REMARKS:	_ H_e	y Here		110	5	1008	1 NG	7	Tonul	ETALS	00	7		T	7	1	7	7	7		AESE	AVA	
	Ĭ						ATE			SAMPLE ID	ENTIFI	CATION LABORATORY			BIEN			/ð		BOO SA CELLS	5	8	0 / T	7					2	Sal Sal	10	y	E E
	A COLOR	8		DATE	TIME		8	6		SAMPLE	110.	1.D. NO.				<u> </u> §	13	8	18/	<u>8</u> /	<u>*/</u>	<u>\$</u> /	n n	-/				-	11	12	1	<u>8</u>	0
	3			12.7.5kj 12.7.9	10:4 S		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		50.	-1 6-8 2 10-12		1673	<u>/</u>		<i>v</i> <i>v</i>			-	-		-ŀ	-	2			2					्		
	3				10:05 11:32	-	-	-		3 6-8		1611	-					~					5					-					
	3				11:50	┢─	2	-		3 14-16		1676	~	L		·		-					2										
	Ť				11.50			-	Tri			1677	Y		\checkmark									2 						 		_	
																										_	_	_				_	
•						•				·									-						+	-				-	-		• •
																								- -	╺╌┠╸							-	
 							-					··								- -	┢	-†-		┢	Ť			1		-			
PCA0																								1						÷	\Box		
)4-1517			-		· ·			-																		_					_		
7]-						-		_			-	-	
													-			_		_				╉		_ -	┦	-	-			-	-		• •
ł	Relingulat	edby	Signat	wel			ate /	Time	Thecet	ved by: (Sagnajore)		Reincuished by: (Signan				Da	te / Tim			ed by (Signah	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_ 	-'1	CHE(ne fo		arikuki Mits	 '		
	Reinquish	ed bye	Signal	veratur			75 1ate /	Time C B Time	Recei	ALON V. C. (Shrahve)		PHE 1,3 Reanquished by: (Signah Gay In (ue) V	m te			10/1m		Necelv	ed by: (Signah	ne)				TURI		UNID T	IME AI	EQUIA			

.

	Accurate Environmental	Testing 2231 Catlin Avenue #420 Superior WI 54880
	PHONE: (715) 392-5844 	FAX: (715) 394-7414 (800) TEST-AET 837-8238
· •		
	Bob Maslowksi	Chain of Custody # 95136
	Remediation Services Inc. 102 S. 29th Avenue W., Suite 100	Project Name: LPGC Client: RSI

Sampler Name:

.4			-	•	
	Collected on	4/26/95	4/26/95	4/26/95	4/26/95
	Received on	4/26/95	4/26/95	4/26/95	4/26/95
	DRO Preserved on	Field	Field	Field	NA
	DRO Extracted on	5/1/95	4/28/95	4/28/95	NA
	DRO Analyzed on	5/3/95	5/3/95	5/3/95	NA
	GROBTEX Analyzed on	5/3/95	5/3/95	5/3/95	5/3/95
	Sample Description	MVV-1	MW-2	MW-3	FIELD BLANK
	Sample I.D.	MW-1	MW-2	MW-3	F.B.
	Lab I.D.	95136-01	95136-02	95136-03	95136-06
Parameter	PQL	WATER	WATER	WATER	WATER
Temperature	NA	on ice	on ice	on ice	on ice
Diesel Range Organics	100 ug/L	150 ug/L	320 ug/L	< PQL	NA
Gasoline Range Organics	100 ug/L	< PQL	11000 ug/L	< PQL	< PQL
Comments	none	none	попе	none	поле

PQL indicates that practical quantitation limits were not met in analyses.

NA implies that this parameter was not analyzed or not applicable to test run

Filled out by:

102 S. 29th Avenue W., Suite 100

Duluth, MN 55806

MO

Date: 5/5/95 3:19 PM

Timothy Heren

The following tests were performed according to the WI DRN specification listed in ch. NR 149 of the WI Adm. Code. WI DNR Certification # 816079330

TEBTING \$274 DATISM SUT SUPERTOR, WE S	BEOUEST	STONY BECOLU AND FOR ANALYSIS	TOLL I	FREE (800) TEAT-AET LAB (715) 392-5844 FAX (715) 394-7414
IPONTA	BALLFIER HANNE: Tim Heren BALLFIER BIGHARUTHE: Lingthey Heren REMARKS:		A TONIC	PRESERVATIVE
	SAMPLE IDENTIFICATION SAMPLE SAMPLE LABORATORY 10. LD. NO.		A 100 C 100	
7 4/26/75 11:10 ~ N 7 1/26/95 11:40 V M	$\frac{ w-1 }{ w-2 } = -02$			
5 N	$\frac{w-3}{-04} = \frac{-03}{-04}$			
	Field -Ole	-⊻ ²		
	N. Jw-1 -01	×	is_a_c	4 10 100
	· · · · · · · · · · · · · · · · · · ·		lost_du€ + lost_du€ + 	2 th
			DLP_5	
	Received by: (Statsburg) Received by: (Statsburg) Received by: (Statsburg) Received by: (Statsburg) Received by: (Statsburg) Received by: (Statsburg)	igrahine) Date / Time igrahine) Date / Time	Received by: (Signalive) Received by: (Signalive)	Date Vectores: M Houmin D Helé Vécnilite: Mateu Delectrollimete Check neue Lou Dimbano

	nts						Date /	rime		Received by: (Signature)	(Relinquished by: (Signat	#6)				le / Tim		Ale ceived	σγ: (54						، ت	IUND T IORMU IVIREC	u [
ha		W	hu	~_	· ·	41		<u>//z</u>	2	Received by: (Signature)	<u>]/e.</u>			•		4-2		90	Received	<u>C/</u>	<u>)</u>	Λ	2 ·		WA	TER D	ERE FO	ION LI	MITS			
\uparrow									T	· · · · · · · · · · · · · · · · · · ·										Τ												
╉			-				┢		\uparrow									-+		╧	\uparrow	1-	1									
-			-				┢	┢─	┢			<u>.</u>			-		-+	-		-	+		+								\neg	
┥	-						$\left \right $		┝			<u> </u>	-			-	-+	-+		╉	╉	+-	┼──	┢						-		
						-	╞	┝	┝			·····	-					-		╉	┿			-						-	-	
-								╞	╀		╞	· .					<u> </u>	_		╇	+-		-									
	·						 	_								_	_								-							
									·														<u> </u>	<u> </u>								
			Ħ	/	9130	Ţ	1-	Γ	t	Field	-oc					Ϋ́																
·			╁╉		116 3 2	1-	┢	ŀ	╀	Trip	-04	<u></u>	┼╌			10	2	D		- -	+-	╀	1	1	1		-					
<u></u>			H	<u> </u>	11:44		╀	┢		MW-ZDup	1	······	┼─			<u>^</u> χ		4	-+	╋		╋	+	 	+	┢						
 7		╞	┢	f	11:42 10:10	-		╀		<u>тш-э</u> тш-з	-02 -03		┢			X		X X		╶╂╸		┼╴		┢	┝	┼──		-				
ſ			7/.	Xqq	- 11:1C			╀		MW-1	-01		-			X		Å			╋	┼╴		┢				┝				
	CONTR	3			TIME					SAMPLE	SAMPLE NO,	LABORATORY LD. NO.		040	10		ह	2	RCRA B MC	<u>š/,</u>	<u>\$/,</u>	<u></u> []/	4		/	_	_	<u> </u>	<u> /₹</u>	heou	<u> </u>	OTHER
CONTABERS						-	AATI I	-	-	SAMPLE ID	· · · · · · · · · · · · · · · · · · ·		1/						°/2	8		50 80 LCD	[]	' /	' /						;/	5
BE NT TO	3.		5.		The	S	η	کړ	0	REMARKS:	_				/ .	/ /	 	/ /	RCRA B MC		8/	ļ				/ /	/ /		Γ	[.	1.	77
OJEC		212	<u>j</u>	PC	<u>C7</u>	51	3	P		SAMPLER SIGNATURE:				_/	•/	/		/			/ /	/	[]	' /	' <u> </u>	/	./		 	RESI	ERVA	TIVE
ENT:	ŀ	łE	T	•						SAMPLER NAME:	lim	Heren			[ING	:	_ <u>A</u>	E	Ţ		· ·	,			· .				•	
Ē		7			SVPE	RIO	IR,	ŴJ		54880																					-74	
1			٦		5TIN(2231		ATL	IN	່ຽເ	JITE 420	R	EQUEST F		A١	JAL	YS	IS						TC	DLL	. FF						T-A -58	
لر	Ĺ		E	NVI	RONI		NTA	۱L		•	CH		SIC ND	יטי	H	EC	Uн	D								. •	•					
٢		4	20	<u> </u>	RATE								\ _													N	0	X	١/.	310)	د ۱ م

PCA04-1520

A REAL PROPERTY OF A REA



LABORATORY REPORT

MR JAY THOMPSON	LAB NO: 504214
ACCURATE ENVIRONMENTAL TESTING	AET C O C NO: 95136
2231 CATLIN AVENUE SUITE 420	PROJECT ID: CODLPGC95136
SUPERIOR WI 54880	DATE REC'D: Apr. 28, 1995
	REPORT DATE: May 19, 1995

Water Samples

Sample I.D.	Lead <u>(µg/L)</u>
MW-1 4/26/95, 11:10	<50
MW-2 4/26/95, 11:40	<50
MW-3 4/26/95, 10:10	<50
Temp. Upon Arrival	iced

ERA LABORATORIES, INC. Robert D. Magnuson

MN Certification #027-137-152

WI Certification #999446800

24 North 21st Avenue West, Dukith, MN 55806-2107

(218) 727-6380

Chemical and Biological Testing Serv

а,

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

S. 3.8 1 12. Sec. A. Laboratory Information

Era Method: 9310 Reference Method: MDH 465D

> Era Project # 504214

Chain of Custody # 95136

Analysis File I.D. c:\HPCHEM\1\DATA\ MAY05\002F0101

Sample Information

Client: Accurate Environ. Testing

Sample Name: Lab Reagent Blank

-

Sample matrix: Water

date collected: date analyzed: 5/5/95

> Comments: This Blank was prepared at Era Laboratories.

Results

Analyte	Amount	Unite	PQL ug/L	Comment	Analyte	Amount	Unite	PQL ug/L	Commer
dichlorodifluoromethane	< PQL	ug/L	0.9		1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
chloromethane	< PQL	ug/L	0.9		1,4-dichlorobenzene	< PQL	ug/L	0.3	
vinyl chloride	< PQL	ug/L	0.3		1,2-dichlorobenzene	< PQL	ug/L	0.3	
bromomethane	< PQL	ug/L	0.3		1,2-dibromo-3-chloropropana	< PQL	ug/L	0.9	
chloroethane	< PQL	ug/L	0.3		1,2,4-trichlorobenzene	<pql .<="" td=""><td>ug/L</td><td>0.9</td><td></td></pql>	ug/L	0.9	
trichlorofluoromethene	< PQL	ug/L	0.3		hexachlorobutadiene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
1,1-dichlorosthene	< PQL	ug/L	0.3		1,2,3-trichlorobenzene	<pql< td=""><td>υά/L</td><td>0.9</td><td></td></pql<>	υά/L	0.9	
methylene chloride	< PQL	ug/L	0.3				•		
trans-1,2-dichloroethene	< PQL	ug/L	0.3		dichlorofluoromethane	<pql< td=""><td>ua/L</td><td>1.0</td><td></td></pql<>	ua/L	1.0	
1,1-dichloroethane	< PQL -	ug/L	0.3		trichlorotrifluorosthans	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
2,2-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>allyl chlorida</td><td>< PQL</td><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	0.3		allyl chlorida	< PQL	ug/L	1.0	
cis-1,2-dichloroethene	< PQL	ug/L	0.3						
chloroform	< PQL	ug/L	0.3		benzene	< PQL	ua/L	0.3	
bromochloromethane	< PQL	ug/L	0.3		tolusne	< PQL	ug/L	0.3	
1,1,1-trichloroethane	< PQL	ug/L	0.3		ethyl benzene	< PQL	ug/L	0.3	
1,1-dichloropropene	< PQL	ug/L	0.3		m-xylene + p-xylene	< PQL	ug/L	0.3	
carbon tetrachloride	< PQL	ug/L	0.3		o-xylene	< POL	ug/L	0.3	
1,2-dichloroethane	< PQL	ug/L	0.3		styrene	< PQL	ug/L	0.3	
trichloroethene	< PQL	ug/L	0.3		isopropyi benzene	< PQL	ug/L	0.3	
1,2-dichloropropane	< PQL	ug/L	0.3		n-propylbenzene	< PQL	ug/L	0.3	
bromodichloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,3,5-trimethylbenzene +</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		1,3,5-trimethylbenzene +	< PQL	ug/L	0.3	
dibromomethene	< PQL	ug/L	0.3		2-chlorotoluene		-		
cis-1,3-dichloropropene	< PQL	ug/L	0.3		tert-butyibenzene	< PQL	ug/L	0.3	
trans-1,3-dichloropropene	< PQL	ug/L	0.3		1,2,4-trimethylbenzene	< PQL	ug/L	0.3	
1,1,2-trichloroethene	< PQL	ug/L	0.3		sec-butylbenzene	< PQL	ug/L	0.3	
1,3-dichloropropene	< PQL	ug/L	0.3		p-isopropyltoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
tetrachloroethene	< PQL	ug/L	0.3		n-butyibenzene	< PQL	ug/L	0.3	
dibromochloromethene	< PQL	ug/L	0.3		naphthelene	< PQL	ug/L	0.9	
1,2-dibromosthane	< PQL	ug/L	0.3				-		
chlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ethyl ether</td><td>< PQL</td><td>ua/L</td><td>5.</td><td></td></pql<>	ug/L	0.3		ethyl ether	< PQL	ua/L	5.	
1,1,1,2-tetrachloroethene	< PQL	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td>20,</td><td></td></pql<>	ug/L	20,	
bromoform	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl tertiary butyl ether</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		methyl tertiary butyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,2,2-tetrachloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl athyl katons</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		methyl athyl katons	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,2,3-trichloropropane	< PQL	ug/L	0.3		tetrehydrofuran	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
bromobenzene	< PQL	ug/L	0.3		methyl isobutyl ketone	< PQL	ug/L	5.	
2-chlorotoluene	< PQL	ug/L	0.3						
4-chlorotoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						

PQL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses.

The PQL value is, in general, 3 times the established MDL (Minimum Detection Limit).

Ala andal

Randall Helander Project Manager

PCA04-1522

 $\gamma^{\mathbf{r}}$

5/18/95

Era Laboratories, Inc.

24 North 21st Avenue West, Duluth, MN 55805-2107 (218) 727-6380

8 emical and Biological Tusting Services

. . .

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

.

Laboratory information

Era Method: 9310 Reference Method: MDH 465D

Era Project # 504214 Chain of Custody 95136

Analysis File I.D. c:\HPCHEM\1\DATA\ MAY04\001F0101

Sample Information

Client: Accurate Environ. Testing

Sample Name: Lab Reagent Blank

Sample matrix: Water

date collected: date analyzed: 5/4/95

Comments: This Blank was prepared

at Era Laboratories.

				Re	sulfs				
Analyte	Amount	Unite	PQL ug/L	Commerci	Analyte	Amount	Units	PQL ug/L	Commen
dichlorodifluoromethane	< PQL	ug/L	0.9		1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
chloromethane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td><td>1,4-dichlorobenzene</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.9		1,4-dichlorobenzene	< PQL	ug/L	0.3	
vinyl chloride	< PQL	ua/L	0.3		1,2-dichlorobenzene	< PQL	ug/L	0.3	
bromomethane	< PQL	ua/L	0.3	Α	1,2-dibromo-3-chloropropane	< PQL	ug/L	0.9	
chloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2,4-trichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	A	1,2,4-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
trichlorofluoromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>Ä</td><td>hexachlorobutadiene</td><td><pql< td=""><td>ua/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	Ä	hexachlorobutadiene	<pql< td=""><td>ua/L</td><td>0.9</td><td></td></pql<>	ua/L	0.9	
1,1-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1.2.3-trichlorobenzene</td><td><pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<></td></pql<>	ug/L	0.3		1.2.3-trichlorobenzene	<pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<>	ug/L	0.9	
methylene chloride	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td>0.0</td><td></td></pol<>	ug/L	0.3					0.0	
trans-1,2-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>dichlorofluoromethane</td><td>< PQL</td><td>ua/L</td><td>1.0</td><td>A</td></pql<>	ug/L	0.3		dichlorofluoromethane	< PQL	ua/L	1.0	A
1.1-dichloroethane	< POL	ug/L	0.3		trichlorotrifluoroethane	<pol< td=""><td>ug/L</td><td>1.0</td><td>~</td></pol<>	ug/L	1.0	~
2,2-dichloropropane	< POL	ug/L	0.3		allyl chloride	<pol< td=""><td>ug/L</td><td>1.0</td><td></td></pol<>	ug/L	1.0	
cis-1,2-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td>00/2</td><td>1.0</td><td></td></pql<>	ug/L	0.3				00/2	1.0	
chloroform	< POL	ug/L	0.3		benzene	< POL	ua/L	0.3	
bromochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>toluene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pql<>	ug/L	0.3		toluene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
1.1.1-trichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ethyl benzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		ethyl benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1-dichloropropene	< PQL	ug/L	0.3		m-xylene + p-xylene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
carbon tetrachloride	<pql< td=""><td>uo/L</td><td>0.3</td><td></td><td>o-xylene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pql<>	uo/L	0.3		o-xylene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
1.2-dichloroethane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>styrene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pol<>	ug/L	0.3		styrene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
trichloroethene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>isopropyl benzene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pol<>	ug/L	0.3		isopropyl benzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
1,2-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>n-propyibenzene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pql<>	ug/L	0.3		n-propyibenzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
bromodichloromethane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,3,5-trimethylbenzene +</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3		1,3,5-trimethylbenzene +	< PQL	ug/L	0.3	
dibromomethane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>2-chlorotoluene</td><td>~1.46</td><td>our.</td><td>0.3</td><td></td></pol<>	ug/L	0.3		2-chlorotoluene	~1.46	our.	0.3	
cis-1,3-dichloropropene		ug/L	0.3		tert-butylbenzene	<p01< td=""><td>ua/L</td><td>0.3</td><td></td></p01<>	ua/L	0.3	
trans-1,3-dichloropropene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,4-trimethylbenzene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pol<>	ug/L	0.3		1,2,4-trimethylbenzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
1,1,2-trichloroethane	<pol< td=""><td>ug/L ug/L</td><td>0.3</td><td></td><td>sec-butylbenzene</td><td><pol< td=""><td>ug/L ug/L</td><td>0.3</td><td></td></pol<></td></pol<>	ug/L ug/L	0.3		sec-butylbenzene	<pol< td=""><td>ug/L ug/L</td><td>0.3</td><td></td></pol<>	ug/L ug/L	0.3	
1,3-dichloropropane	< POL		0.3			<pol< td=""><td></td><td>0.3</td><td></td></pol<>		0.3	
tetrachioroethene	< POL	ug/L	0.3		p-isopropyltoluene n-butylbenzene	<pul <pul< td=""><td>ug/L</td><td>0.3</td><td></td></pul<></pul 	ug/L	0.3	
dibromochloromethane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td>< PUL</td><td>ug/L</td><td></td><td></td></pol<>	ug/L	0.3			< PUL	ug/L		
1.2-dibromosthana		ug/L	0.3		naphthalene	< rul	ug/L	0.9	
1,2-0ipromosthans chiprobenzene	<pql< td=""><td>ug/L</td><td></td><td></td><td>l</td><td></td><td></td><td>-</td><td></td></pql<>	ug/L			l			-	
	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ethyl ether</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		ethyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,1,2-tetrachioroethane	< PQL	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td>20.</td><td>A</td></pql<>	ug/L	20.	A
bromoform	< PQL	ug/L	0.3		methyl tertlary butyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,2,2-tetrachloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl ethyl ketone</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		methyl ethyl ketone	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,2,3-trichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>tetrahydrofuran</td><td><pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<></td></pql<>	ug/L	0.3		tetrahydrofuran	<pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<>	ug/L	5.	A
bromobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl isobutyl ketone</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		methyl isobutyl ketone	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
2-chlorotoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						
4-chlorotoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						

COMMENTS A

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

POL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses. The PQL value is, in general, 3 times the established MDL (Minimum Detection Limit).

x/l

Randall Helander Project Manager

24 North 21st Avenue West, Duluth, MN 55806-2107

(218) 727-6380

Chemical and Biological Testing Servi

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

Laboratory Information	Sample Information
Ere Method: 9310 Reference Method: MDH 465D	Client: Accurate Environ. Testing
	Sample Name: Field Blank
Era Project # 504214-6	Sample matrix: Water
Chein of Custody # 85136 Analysis File I.D. c:\HPCHEM\1\DATA\	date collected: 4/28/95 date analyzed: 5/5/95
MAY04\012F0101	Comments: This Blank was not prepared at Era Laboratories.

				Re	ults				
Analyte	Amount	Units	PQL ug/L	Comment	Analyte	Amount	Units	PQL vg/L	Convinent
dichlorodifluoromethane	<pol< td=""><td>ua/L</td><td>0.9</td><td></td><td>1,3-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pol<>	ua/L	0.9		1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
chloromethane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td><td>1,4-dichlorobenzene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pql<>	ug/L	0.9		1,4-dichlorobenzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
vinyl chloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2-dichlorobenzene</td><td><pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<></td></pql<>	ug/L	0.3		1,2-dichlorobenzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3	
bromomethane	< PQL	ug/L	0.3	A	1.2-dibromo-3-chloropropane	< POL	ug/L	0.9	
chloroethane	< PQL	ug/L	0.3	A	1,2,4-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
trichlorofluoromethane	< PQL	ug/L	0.3	A	hexachlorobutadiene	< PQL	ug/L	0.9	
1,1-dichloroethene		4 ug/L	0.3		1,2,3-trichlorobenzene	< PQL	ug/L	0.9	
methylene chloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1</td><td></td><td>-</td><td></td><td></td></pql<>	ug/L	0.3		1		-		
trans-1,2-dichloroethene	< PQL	ug/L	0.3		dichlorofluoromethane	< PQL	ug/L	1.0	A
1,1-dichloroethane	< PQL	ug/L	0.3		trichlorotrifluoroethane	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
2,2-dichloropropane	< PQL	ug/L	0.3		allyl chloride	< PQL	ug/L	1.0	
cis-1,2-dichloroethene	< PQL	ug/L	0.3						
chloroform		5 ug/L	0.3		benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
bromochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>toluene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		toluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1,1-trichloroethane		9 ug/L	0.3		ethyl benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1-dichloropropene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>m-xylene + p-xylene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		m-xylene + p-xylene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
carbon tetrachloride	< PQL	ug/L	0.3		o-xylene	< PQL	ug/L	0.3	
1,2-dichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>styrene</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		styrene	< PQL	ug/L	0.3	
trichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>isopropyl benzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		isopropyl benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,2-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>n-propylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		n-propylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
bromodichloromethane		5 ug/L	0.3		1,3,5-trimethytbenzene +	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
dibromomethane	< PQL	ug/L	0.3		2-chlorotoluene				
cls-1,3-dichloropropene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>tert-butylbenzene</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		tert-butylbenzene	< PQL	ug/L	0.3	
trans-1,3-dichloropropene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,4-trimethylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		1,2,4-trimethylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1,2-trichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>sec-butylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		sec-butylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,3-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>p-isopropyltoluene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		p-isopropyltoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
tetrachioroethene	< PQL	ug/L	0.3		n-butylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
dibromochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>naphthalene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3		naphthalene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td>_</td><td></td></pql<>	ug/L	0.3					_	
chlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ethyl ether</td><td><pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></td></pql<>	ug/L	0.3		ethyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,1,2-tetrachioroethane bromoform	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>acetone</td><td><pql< td=""><td>ug/L</td><td>20.</td><td>A</td></pql<></td></pql<>	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td>20.</td><td>A</td></pql<>	ug/L	20.	A
	< PQL	ug/L	0.3		methyl tertiary butyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,2,2-tetrachloroethane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl ethyl ketone</td><td><pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<></td></pol<>	ug/L	0.3		methyl ethyl ketone	<pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<>	ug/L	5.	A
1,2,3-trichloropropane	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>tetrahydrofuran</td><td><pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<></td></pol<>	ug/L	0.3		tetrahydrofuran	<pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<>	ug/L	5.	A
bromobenzene 2-chiorotoluene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl isobutyl ketone</td><td>< PQL</td><td>ug/L</td><td>5.</td><td></td></pol<>	ug/L	0.3		methyl isobutyl ketone	< PQL	ug/L	5.	
2-chiorotoluene 4-chiorotoluene	< PQL	ug/L	0.3						
4-Chlorotoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						

COMMENTS A

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

PQL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses. The PQL value is, in general, 3 times the established MDL (Minimum Detection Limit).

4 The la L L Randall Helander

Project Manager

24 North 21st Avenue West, Dukith, MN 55806-2107 (218) 727-5380

Chemical and Biological Testing Services

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

Laboratory Information

Era Method: 9310 Reference Method: MDH 485D

> Era Project # 504214-1 Chain of Custody # 95136

Analysis File I.D. c:\HPCHEM\1\DATA\ MAY04\004F0101

Sample Information

Client: Accurate Environ. Testing

4/26/95

5/4/95

Sample Name: MW-1

Sample matrix: Water

date collected:

date analyzed:

Comments:

					włs I				
Analyte	Amount	Units	PQL vg/L	Comment	Analyte	Amount	Units	PQL vg/L	Commer
lichlorodifluoromethane	<pql< td=""><td>ua/L</td><td>0.9</td><td></td><td>1.3-dichlorobenzene</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ua/L	0.9		1.3-dichlorobenzene	< PQL	ug/L	0.3	
hloromethane	< POL	ug/L	0.9		1.4-dichlorobenzene	< POL	ug/L	0.3	
vinvl chlorida	< PQL	ua/L	0.3		1.2-dichlorobenzene	< POL	ua/L	0.3	
romomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>Α.</td><td>1,2-dibromo-3-chloropropane</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	Α.	1,2-dibromo-3-chloropropane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
chloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>Ä</td><td>1,2,4-trichlorobenzene</td><td><pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<></td></pql<>	ug/L	0.3	Ä	1,2,4-trichlorobenzene	<pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<>	ug/L	0.9	
richlorofluoromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>Â</td><td>hexachlorobutadiene</td><td><pql< td=""><td>ua/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	Â	hexachlorobutadiene	<pql< td=""><td>ua/L</td><td>0.9</td><td></td></pql<>	ua/L	0.9	
1,1-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,3-trichlorobenzene</td><td><pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<></td></pql<>	ug/L	0.3		1,2,3-trichlorobenzene	<pol< td=""><td>ug/L</td><td>0.9</td><td></td></pol<>	ug/L	0.9	
nethylene chloride	< PQL	uo/L	0.3						
rans-1.2-dichloroethene	< PQL	uo/L	0.3		dichlorofluoromethane	<pql< td=""><td>uo/L</td><td>1.0</td><td>A</td></pql<>	uo/L	1.0	A
,1-dichloroethane	< PQL	ug/L	0.3		trichlorotrifluoroethana	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
2,2-dichloropropane	< PQL	ug/L	0.3		allyl chloride	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
is-1,2-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						
hloroform	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>benzene</td><td>0.</td><td>8 ug/L</td><td>0.3</td><td></td></pol<>	ug/L	0.3		benzene	0.	8 ug/L	0.3	
romochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>toluene</td><td>0.</td><td>Bug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		toluene	0.	Bug/L	0.3	
1,1,1-trichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ethyl benzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		ethyl benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1-dichloropropene	< PQL	ug/L	0.3		m-xylene + p-xylene	1.	7 ug/L	0.3	
arbon tetrachloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>o-xylene</td><td>1.</td><td>1 ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		o-xylene	1.	1 ug/L	0.3	
1,2-dichloroethane	< PQL	ug/L	0.3		styrana	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
richloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>sopropyl benzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		sopropyl benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
,2-dichloropropane	< PQL	ug/L	0.3		n-propylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
romodichloromethane	< PQL	ug/L	0.3		1,3,5-trimethylbenzene +	< PQL	ug/L	0.3	
libromomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>2-chlorotoluene</td><td></td><td>-</td><td></td><td></td></pql<>	ug/L	0.3		2-chlorotoluene		-		
cis-1,3-dichloropropene	< PQL	ug/L	0.3		tert-buty/benzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
rans-1,3-dichloropropene	<pql< td=""><td>ua/L</td><td>0.3</td><td></td><td>1,2,4-trimethylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ua/L	0.3		1,2,4-trimethylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1,2-trichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>sec-butylbenzens</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		sec-butylbenzens	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
,3-dichloropropane	< PQL	ug/L	0.3		p-isopropyltoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
etrachloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>n-butylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		n-butylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
libromochloromethane	< PQL	ug/L	0.3		naphthalene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
,2-dibromoethane	< POL	ug/L	0.3		l.				
hiorobenzene	< PQL	ug/L	0.3		ethyl ether	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
1,1,1,2-tetrachioroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>acetone</td><td><pql< td=""><td>ug/L</td><td>20.</td><td>A</td></pql<></td></pql<>	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td>20.</td><td>A</td></pql<>	ug/L	20.	A
promoform	< PQL	ug/L	0.3		methyl tertiary butyl ether	< PQL	ug/L	5.	
1,1,2,2-tetrachioroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl ethyl ketone</td><td><pql< td=""><td>ug/L</td><td>5.</td><td>· A</td></pql<></td></pql<>	ug/L	0.3		methyl ethyl ketone	<pql< td=""><td>ug/L</td><td>5.</td><td>· A</td></pql<>	ug/L	5.	· A
1,2,3-trichloropropane	< PQL	ug/L	0.3		tetrahydrofuran	<pql< td=""><td>ug/L</td><td>5.</td><td>A</td></pql<>	ug/L	5.	A
bromobenzene	< PQL	ug/L	0.3		methyl isobutyl ketone	<pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<>	ug/L	5.	
2-chlorotoluene	< PQL	ug/L	0.3						
4-chlorotoluene	<pql< td=""><td>ua/L</td><td>0.3</td><td></td><td>· ·</td><td></td><td></td><td></td><td></td></pql<>	ua/L	0.3		· ·				

COMMENTS

A

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

PQL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses. The PQL value is, in general, 3 times the established MDL (Minimum Detection Limit).

Ranhall Heland

Randail Helander Project Manager

•

24 North 21st Avenue West, Duksh, MN 55808-2107 (218) 727-6380 Ch nicel and Bi nicel Testino Burylow

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)	
Laboratory Information	Sample Information
Era Method: 9310 Reference Method: MDH 465D	Client: Accurate Environ. Testing
	Sample Name: MW-2 FIELD DUP.
	Sample matrix: Water
Era Project # 504214-4	
Chain of Custody # 95136	date collected: 4/26/95
	date analyzed: 5/4/95
Analysis File I.D. o:\HPCHEM\1\DATA\	
MAY04\009F0101	Comments:

	Analyte	Amount	Units	PQL ug/L	Comment	Analyte	Amount	Unite	PQL ug/L	Commu
vinyl chloride $<$ PQLug/L0.31,7.3 timetoslation $<$ PQLug/L0.3bromomethane< PQL		<pql< td=""><td>ug/L</td><td></td><td></td><td>1,3-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L			1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
bromomethane <pql 0.3="" a<br="" l="" ug="">thicknor consthane <pql 0.3="" a<br="" l="" ug="">1,2.4 thromo-3-chloropropane <pql 0.9<br="" l="" ug="">1,2,4 thicknorosthane <pql 0.3<br="" l="" ug="">thicknorosthane <pql 0.3<br="" l="" ug="">1,2,4 thicknorosthane <pql 0.3<br="" l="" ug="">1,2,4 thicknorosthane <pql 0.3<br="" l="" ug="">thicknorosthane <pql 0.3<br="" l="" ug="">thicknor</pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql>			ug/L	0.9		1,4-dichlorobenzene	< PQL	ug/L	0.3	
$ \begin{array}{cccc} chlorosthane & < POL & ug/L & 0.3 & A & 1,2,4 trichlorobenzene & < POL & ug/L & 0.9 \\ tichlorofluoromethane & < POL & ug/L & 0.3 & A \\ 1,1,4 chlorosthane & < POL & ug/L & 0.3 & A \\ 1,2,4 trichlorobenzene & < POL & ug/L & 0.9 \\ trans-1,2 dichlorosthane & < POL & ug/L & 0.3 & dichlorofluoromethane & < POL & ug/L & 0.9 \\ trans-1,2 dichlorosthane & < POL & ug/L & 0.3 & dichlorosthane & < POL & ug/L & 1.0 \\ 1,1,4 chlorosthane & < POL & ug/L & 0.3 & dichlorosthane & < POL & ug/L & 1.0 \\ 1,2,4 cichlorosthane & < POL & ug/L & 0.3 & dichlorosthane & < POL & ug/L & 1.0 \\ cie + 1,2 dichlorosthane & < POL & ug/L & 0.3 & dichlorosthane & < POL & ug/L & 1.0 \\ cie + 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi chloride & < POL & ug/L & 3. \\ 1,1,1 trichlorosthane & < POL & ug/L & 0.3 & dilyi chlorosthane & 221. ug/L & 3. \\ 1,1,1 trichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 631. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 212. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 60. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 60. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 43. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 43. ug/L & 3. \\ 1,2 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 43. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & dilyi benzene & 43. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene + & 66. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene + & 62. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene & 42. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene & 45. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene & 45. ug/L & 3. \\ 1,3 dichlorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene & 45. ug/L & 3. \\ 1,2,3 tribhorosthane & < POL & ug/L & 0.3 & 1,2,4 trimethylbenzene & 45. ug/L & 3. \\ 1,2,3 tribhorosthane & < POL $	vinyl chloride	< PQL	ug/L			1,2-dichlorobenzene	< PQL	ug/L	0.3	
Trichloromethane CPQL ug/L 0.3 A Trichloromethane CPQL ug/L 0.3 1,1-dichloroethane CPQL ug/L 0.3 A hexachlorobutadise CPQL ug/L 0.9 mathylene chloride CPQL ug/L 0.3 I,2,3-trichlorobutadise CPQL ug/L 0.9 1,1-dichloroethane CPQL ug/L 0.3 dichlorofluoromethane CPQL ug/L 1.0 2,2-dichloropropane CPQL ug/L 0.3 dichloroethane CPQL ug/L 1.0 cis-1,2-dichloroethane CPQL ug/L 0.3 trichloroethane CPQL ug/L 3.1 toinere CPQL ug/L 0.3 tolure 1.1 1.1 3.1 toinere CPQL ug/L 0.3 tolure 21. ug/L 3.1 toinere CPQL ug/L 0.3 m-xylene + p-xylene 282. ug/L 3.1 toineroethane CPQL ug/L 0.3		<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2-dibromo-3-chioropropane</td><td>< PQL</td><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.3	A	1,2-dibromo-3-chioropropane	< PQL	ug/L	0.9	
1,1-dichkrosthane <pql< td=""> ug/L 0.3 1,1-dichkrosthane <pql< td=""> ug/L 0.3 methylene chkride <pql< td=""> ug/L 0.3 tame-1,2-dichkrosthane <pql< td=""> ug/L 0.3 1,1-dichkrosthane <pql< td=""> ug/L 0.3 1,1-trichkrosthane <pql< td=""> ug/L 0.3 tame-1,2-dichkrosthane <pql< td=""> ug/L 0.3 tartichkrosthane <pql< td=""> ug/L 0.3</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>	chloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2,4-trichlorobenzene</td><td>< PQL</td><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.3	A	1,2,4-trichlorobenzene	< PQL	ug/L	0.9	
methylene chloride $< PQL$ ug/L 0.3 trane-1,2-dichloroethane $< PQL$ ug/L 0.3 trane-1,2-dichloroethane $< PQL$ ug/L 0.3 1,1-dichloroethane $< PQL$ ug/L 0.3 cibloroethane $< PQL$ ug/L 0.3 toknoroethane $< PQL$ ug/L 0.3 trane-1,3-dichloroethane $12.8 ug/L$ 0.3 trane-1,3-dichloroethane $12.8 ug/L$ 0.3 trane-1,3-dichloroethane $< PQL$ ug/L 0.3 <t< td=""><td>trichlorofluoromethane</td><td></td><td>ug/L</td><td></td><td>A</td><td>hexachlorobutadiene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></t<>	trichlorofluoromethane		ug/L		A	hexachlorobutadiene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	1,1-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,3-trichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3		1,2,3-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	methylene chloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td>•</td><td></td><td></td></pql<>	ug/L	0.3				•		
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	trans-1,2-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>dichlorofluoromethane</td><td><pql< td=""><td>ua/L</td><td>1.0</td><td>A</td></pql<></td></pql<>	ug/L	0.3		dichlorofluoromethane	<pql< td=""><td>ua/L</td><td>1.0</td><td>A</td></pql<>	ua/L	1.0	A
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	1,1-dichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>trichlorotrifluoroethane</td><td><pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<></td></pql<>	ug/L	0.3		trichlorotrifluoroethane	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	2,2-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>alivi chloride</td><td><pql< td=""><td>ua/L</td><td>1.0</td><td></td></pql<></td></pql<>	ug/L	0.3		alivi chloride	<pql< td=""><td>ua/L</td><td>1.0</td><td></td></pql<>	ua/L	1.0	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	cis-1,2-dichloroethene	< PQL	uu/L	0.3						
bromochloromethane <pql 0.3="" 141.="" 3,<br="" l="" tokene="" ug="">1,1.1:tichloroethane <pql 0.3="" 221.="" 3,<br="" l="" tokene="" ug="">1,1.1:tichloroethane <pql 0.3="" 282.="" 3,<br="" l="" m:xylene="" ug="">o-xylene 282. ug/L 3, o-xylene 80. ug/L 3, tichloroethane <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">tichloroethane <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">1,2-dichloroethane <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">tichloroethane <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">trans-1,3-dichloropropene <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">trans-1,2-ticthoroethane <pql 0.3="" 3,<br="" <pql="" l="" tyrene="" ug="">therebergene <pql 0.3="" l="" therebergene<br="" ug=""><pql 0.3="" l="" therebergene<br="" ug=""><pql 0.3="" l="" therebergene<br="" ug=""><pql 0.3="" l="" tyrene<br="" ug=""><pql 0.3="" l="" therebergene<br="" ug=""><pql 50="" l="" tyrene<br="" ug=""><pql 50="" l="" tyrene<br="" ug=""><pql 0.3="" l="" tetrachoroethane<br="" ug=""><pql 50="" l="" therebergene<br="" ug=""><pql 50="" l="" tyrene<br="" ug=""><pql 50="" l="" therebergene<br="" ug=""><pql 50="" l="" tyrene<br="" ug=""><pql 50<="" l="" td="" ug=""><td>chloroform</td><td><pql< td=""><td></td><td>0.3</td><td></td><td>benzene</td><td>631</td><td>. uo/L</td><td>3.</td><td>В</td></pql<></td></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql></pql>	chloroform	<pql< td=""><td></td><td>0.3</td><td></td><td>benzene</td><td>631</td><td>. uo/L</td><td>3.</td><td>В</td></pql<>		0.3		benzene	631	. uo/L	3.	В
1,1.1-tichkoroethane < POL	bromochloromethane	<pql< td=""><td></td><td>0.3</td><td></td><td>toluene</td><td></td><td></td><td></td><td>В</td></pql<>		0.3		toluene				В
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	1,1,1-trichloroethane	<pql< td=""><td></td><td>0.3</td><td></td><td>ethvi benzene</td><td></td><td></td><td></td><td>B</td></pql<>		0.3		ethvi benzene				B
Carbon tstrachloride < PQL ug/L 0.3 o-xylane 80. ug/L 3, 1,2-dichlorosthane 12.8 ug/L 0.3 o-xylane <pql< td=""> ug/L 3, 1,2-dichlorosthane 12.8 ug/L 0.3 tryrene <pql< td=""> ug/L 3, 1,2-dichlorosthane <pql< td=""> ug/L 0.3 topropyl benzene <pql< td=""> ug/L 3, 1,2-dichlorosthane <pql< td=""> ug/L 0.3 n-propylbenzene 47. ug/L 3, ibbromorthane <pql< td=""> ug/L 0.3 1,3,5 trimethylbenzene 47. ug/L 3, ibromorthane <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 47. ug/L 3, ibromorthane <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3, 1,1,2-trithorosthane <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3, 1,3,3-dichloropropane <pql< td=""> ug/L 0.3 n-butylbenzene 32. ug/L 3, 1,3,2-dichlorost</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>	1,1-dichloropropene	<pql< td=""><td></td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td>B</td></pql<>		0.3						B
1,2-dichloroethane 12.8 ug/L 0.3 styrene < POL ug/L 3, trichloroethane < POL	carbon tatrachlorida	<pql< td=""><td>ua/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td>3.</td><td>8</td></pql<>	ua/L	0.3					3.	8
tichloroethene < POL ug/L 0.3 isopropyl benzene 43. ug/L 3, 1,2-dichloropropane < POL	1,2-dichloroethane	12.	0 uu/L	0.3					3.	B
1,2-dichloropropane <pql< td=""> ug/L 0.3 n-propylbenzene 47. ug/L 3. bromodichloromethane <pql< td=""> ug/L 0.3 1,3,5 trimethylbenzene + 86. ug/L 3. cis-1,3-dichloropropene <pql< td=""> ug/L 0.3 1,3,5 trimethylbenzene + 86. ug/L 3. cis-1,3-dichloropropene <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3. 1,3-5 tichloropropene <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3. 1,3-5 dichloropropene <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3. 1,3-5 dichloropropene <pql< td=""> ug/L 0.3 pieopropyltoluene 13. ug/L 3. 1,3-5 dichloropropene <pql< td=""> ug/L 0.3 n-butylbenzene 13. ug/L 3. 1,3-5 dichloropropene <pql< td=""> ug/L 0.3 nebutylenzene 13. ug/L 3. 1,2-dibromochloromethane <pql< td=""> ug/L 0.3 nebutylenzene 32. ug/L 3.</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>	trichloroethene			0.3			43			B
bromodichloromethane	1.2-dichloropropane	< POL	-							Ē
$ \begin{array}{llllllllllllllllllllllllllllllllllll$										B
cis-1,3-dichloropropene <pql< td=""> ug/L 0.3 tart-butylbenzene <pql< td=""> ug/L 3, 1,1,2-trichloropropene <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3, 1,1,2-trichloropropene <pql< td=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3, 1,1,2-trichloropropene <pql< td=""> ug/L 0.3 pisopropytholisene 15. ug/L 3, 1,3-dichloropropene <pql< td=""> ug/L 0.3 pisopropytholisene 13. ug/L 3, 1,3-dichloropropene <pql< td=""> ug/L 0.3 n-butylbenzene 13. ug/L 3, tetrschloroethane <pql< td=""> ug/L 0.3 n-butylbenzene 32. ug/L 3, 1,2-dibromoethane <pql< td=""> ug/L 0.3 nephthelene 91. ug/L 9. 1,1,1,2-tatrachloroethane <pql< td=""> ug/L 0.3 ectone <pql< td=""> ug/L 50 1,1,2,2-tatrachloroethane <pql< td=""> ug/L 0.3 methyl tatriery butyl ether <pql< td=""></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>	dibromomethane								•.	Ũ
trans-1,3-dichlorogropene <pql< th=""> ug/L 0.3 1,2,4-trimethylbenzene 82. ug/L 3. 1,1,2-trithkroethane <pql< td=""> ug/L 0.3 ec-butylbenzene 15. ug/L 3. 1,3-dichlorogropene <pql< td=""> ug/L 0.3 ec-butylbenzene 15. ug/L 3. 1,3-dichlorogropene <pql< td=""> ug/L 0.3 pieopropytoluene 13. ug/L 3. 1,3-dichlorogropene <pql< td=""> ug/L 0.3 n-butylbenzene 32. ug/L 3. dibromochloromethane <pql< td=""> ug/L 0.3 nephthelene 91. ug/L 9. 1,2-dibromochloromethane <pql< td=""> ug/L 0.3 eethyl ether <pql< td=""> ug/L 50 1,1,2-tatrachlorogropane <pql< td=""> ug/L 0.3 eetone <pql< td=""> ug/L 200 bromoform <pql< td=""> ug/L 0.3 methyl ether <pql< td=""> ug/L 50 1,1,2,2-tatrachloroethane <pql< td=""> ug/L 0.3 methyl ethyl katone 960 ug/L 5</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>							< POI	110/1	3	8
1,1,2-trichloroethene <pql< td=""> ug/L 0.3 sec-butylbenzene 15. ug/L 3. 1,3-dichloropropene <pql< td=""> ug/L 0.3 pisopropytholuene 13. ug/L 3. dibromochloromethene <pql< td=""> ug/L 0.3 pisopropytholuene 32. ug/L 3. dibromochloromethene <pql< td=""> ug/L 0.3 naphthelene 91. ug/L 9. 1,2-dibromoethene <pql< td=""> ug/L 0.3 naphthelene 91. ug/L 9. 1,1,1,2-tetrachloroethene <pql< td=""> ug/L 0.3 ethyl ether <pql< td=""> ug/L 50 1,1,1,2-tetrachloroethene <pql< td=""> ug/L 0.3 methyl tetriery butyl ether <pql< td=""> ug/L 50 1,1,2,2-tetrachloroethene <pql< td=""> ug/L 0.3 methyl tetriery butyl ether <pql< td=""> ug/L 50 1,2,3-triterbachloroethene <pql< td=""> ug/L 0.3 methyl ethyl ether <pql< td=""> ug/L 50 1,2,3-triterbachloroethene <pql< td=""> ug/L 0.3</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>			•							8
1,3-dichloropropene VPL ug/L 0.3 p-isopropyholuene 13. ug/L 3. ug/L			•							B
tstrachloroethene			-							В
dibromochloromethane < PQL ug/L 0.3 naphthalene 91. ug/L 9. 1,2-dibromoethane < PQL										8
1,2-dibromoethane <pql< td=""> ug/L 0.3 chlorobenzene <pql< td=""> ug/L 0.3 chlorobenzene <pql< td=""> ug/L 0.3 bromoform <pql< td=""> ug/L 0.3 bromoform <pql< td=""> ug/L 0.3 scatone <pql< td=""> ug/L 200 bromoform <pql< td=""> ug/L 0.3 methyl tertiery butyl sther <pql< td=""> ug/L 50 1,1,2,2-tetrachloroethane <pql< td=""> ug/L 0.3 methyl tertiery butyl sther <pql< td=""> ug/L 50 1,2,2-tetrachloroethane <pql< td=""> ug/L 0.3 tetrahydrofuran <pql< td=""> ug/L 50</pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<></pql<>										B
chlorobenzene < PQL ug/L 0.3 ethyl ether < PQL ug/L 50 1,1,1,2-tetrachloroethane < PQL						napitriaasia		i. ug/c	σ.	D
1,1,2,2-tatrachloroethane < POL ug/L 0.3 acctone < POL ug/L 200 bromoform < POL			•			and a strand and	< 801		EA	в
bromoform <pql< th=""> ug/L 0.3 methyl tertiery butyl ether <pql< th=""> ug/L 50 1,1,2,2-tetrschloroethane <pql< td=""> ug/L 0.3 methyl tertiery butyl ether <pql< td=""> ug/L 50 1,2,3-trichloroethane <pql< td=""> ug/L 0.3 tetrshydrofuran <pql< td=""> ug/L 50</pql<></pql<></pql<></pql<></pql<></pql<>			•					•		B
1,1,2,2-trichloropropane <pol 0.3="" 50<br="" 960="" extra="" l="" methyl="" ug="">1,2,3-trichloropropane <pol 0.3="" 50<="" <pol="" l="" td="" tetrahydrofuran="" ug=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pol></pol>										
1,2,3-trichloropropane <pol 0.3="" 50<="" <pol="" l="" td="" tetrahydrofuran="" ug=""><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td></pol>			-							8
										В
promobenzene < POL ug/L 0.3 methyl isobutyl ketone < POL ug/L 50										8
2-chlorotoluene <pql 0.3<="" l="" td="" ug=""><td></td><td></td><td></td><td></td><td></td><td>methyl isobutyl ketone</td><td><ral< td=""><td>ug/L</td><td>50</td><td>. 8</td></ral<></td></pql>						methyl isobutyl ketone	<ral< td=""><td>ug/L</td><td>50</td><td>. 8</td></ral<>	ug/L	50	. 8

COMMENTS

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

A 8

Due to the dilution requirements of this sample, the PQL's (Practical Quantitation Limits) for these compounds are 10 times what would normally be reported.

PQL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine earnple analyses. The PQL value is, in general, 3 times the established MDL (Minimum Detection Limit).

0 Randall Helander

Project Manager

24 North 21st Avenue West, Dukrth, MN 55806-2107 (216) 727-6380

Chemical and Siological Testing Services

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

Laboratory Information	Sample Information
Era Method: 9310	Client: Accurate Environ. Testing
Reference Method: MDH 465D	Sample Name: MW+2
	Sample matrix: Water
Era Project # 504214-2	
Chain of Custody # 95136	date collected: 4/26/95
	date analyzed: 5/4/95
Analysis File I.D. c:\HPCHEM\1\DATA\	
MAY04\007F0101	Comments:

				Re	sults 1				
Analyte	Amount	Units	PQL ug/L	Comment	Analyte	Amoun	t Units	PQL ug/L	Comment
dichlorodifluoromethane	< PQL	ug/L	0.9		1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
chloromethane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td><td>1,4-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.9		1,4-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
vinyl chloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		1,2-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
bromomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2-dibromo-3-chloropropane</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	A	1,2-dibromo-3-chloropropane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
chloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2,4-trichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	A	1,2,4-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
trichlorofluoromethane	< PQL	ug/L	0.3	A	hexachlorobutadiene	< PQL	ug/L	0.9	
1,1-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,3-trichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3		1,2,3-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
methylene chloride	< PQL	ug/L	0.3						
trans-1,2-dichloroethene	< PQL	ug/L	0.3		dichlorofluoromathane	< PQL	ug/L	1.0	A
1,1-dichloroethane	< PQL	ug/L	0.3		trichlorotrifluoroethane	< PQL	ug/L	1.0	
2,2-dichloropropane	< PQL	ug/L	0.3		allyl chloride	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
cis-1,2-dichloroethene	< PQL	ug/L	0.3						
chloroform	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>benzene</td><td>6</td><td>58. ug/L</td><td>3.</td><td>8</td></pql<>	ug/L	0.3		benzene	6	58. ug/L	3.	8
bromochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>toluene</td><td>1</td><td>32. ug/L</td><td>3.</td><td>В</td></pql<>	ug/L	0.3		toluene	1	32. ug/L	3.	В
1,1,1-trichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>sthyl benzene</td><td>2</td><td>09. ug/L</td><td>З.</td><td>8</td></pql<>	ug/L	0.3		sthyl benzene	2	09. ug/L	З.	8
1,1-dichloropropene	< PQL	ug/L	0.3		m-xylene + p-xylene	2	266. ug/L	З.	В
carbon tetrachloride	< PQL	ug/L	0.3		o-xylana		78. ug/L	Э.	В
1,2-dichloroethane	15.	8 ug/L	0.3		styrene	<pql< td=""><td>ug/L</td><td>З.</td><td>в</td></pql<>	ug/L	З.	в
trichloroethene	< PQL	ug/L	0.3		isopropyl benzene		41. ug/L	З.	в
1,2-dichloropropana	< PQL	ug/L	0.3		n-propylbenzene		46. ug/L	З.	B
bromodichloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,3,5-trimethylbenzene +</td><td></td><td>83. ug/L</td><td>З.</td><td>B</td></pql<>	ug/L	0.3		1,3,5-trimethylbenzene +		83. ug/L	З.	B
dibromomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>2-chlorotoluene</td><td></td><td>•</td><td></td><td>•</td></pql<>	ug/L	0.3		2-chlorotoluene		•		•
cis-1,3-dichloropropene	<pql< td=""><td>ua/L</td><td>0.3</td><td></td><td>tert-butylbenzene</td><td><pql< td=""><td>ug/L</td><td>З.</td><td>В</td></pql<></td></pql<>	ua/L	0.3		tert-butylbenzene	<pql< td=""><td>ug/L</td><td>З.</td><td>В</td></pql<>	ug/L	З.	В
trans-1,3-dichloropropene	<pql< td=""><td>ug/L</td><td>0,3</td><td></td><td>1,2,4-trimethylbenzene</td><td></td><td>77. ug/L</td><td>3.</td><td>В</td></pql<>	ug/L	0,3		1,2,4-trimethylbenzene		77. ug/L	3.	В
1,1,2-trichloroethane	<pql< td=""><td>uo/L</td><td>0.3</td><td></td><td>sec-butvibenzene</td><td></td><td>15. ug/L</td><td>3.</td><td>В</td></pql<>	uo/L	0.3		sec-butvibenzene		15. ug/L	3.	В
1,3 dichloropropane	< PQL	ug/L	0.3		p-isopropyltoluene		13. ug/L	3.	В
tetrachloroethene	< POL	ug/L	0.3		n-butylbenzene		31. va/L	3.	B
dibromochloromethane	0.	.7 ug/L	0.3		naphthalene		88. ug/L	9.	B
1.2-dibromoethane	< PQL	ug/L	0.3						-
chlorobenzene	<pql< td=""><td>ua/L</td><td>0.3</td><td></td><td>ethviether</td><td><pol< td=""><td>ua/L</td><td>50</td><td>в</td></pol<></td></pql<>	ua/L	0.3		ethviether	<pol< td=""><td>ua/L</td><td>50</td><td>в</td></pol<>	ua/L	50	в
1,1,1,2-tetrachloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>acetone</td><td><pql< td=""><td>ug/L</td><td>200</td><td></td></pql<></td></pql<>	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td>200</td><td></td></pql<>	ug/L	200	
bromoform	< PQL	uo/L	0.3		methyl tertiary butyl ether	<pql< td=""><td>ug/L</td><td>50</td><td>В</td></pql<>	ug/L	50	В
1,1,2,2-tetrachloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl ethyl ketone</td><td></td><td>020 ug/L</td><td>50</td><td></td></pql<>	ug/L	0.3		methyl ethyl ketone		020 ug/L	50	
1,2,3-trichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>tetrahydrofuran</td><td><pol .<="" td=""><td>ug/L</td><td>50</td><td>-</td></pol></td></pql<>	ug/L	0.3		tetrahydrofuran	<pol .<="" td=""><td>ug/L</td><td>50</td><td>-</td></pol>	ug/L	50	-
bromobenzene	<pol< td=""><td>ug/L</td><td>0.3</td><td></td><td>methyl isobutyl ketone</td><td><pql< td=""><td>ug/L</td><td>50</td><td></td></pql<></td></pol<>	ug/L	0.3		methyl isobutyl ketone	<pql< td=""><td>ug/L</td><td>50</td><td></td></pql<>	ug/L	50	
2-chlorotoluene	< POL	ug/L	0.3						
4-chlorotoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1</td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3		1				

COMMENTS

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

.

A B

Due to the dilution requirements of this sample, the POL's (Practical Quantitation Limits) for these compounds are 10 times what would normally be reported.

PQL = Prectical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses. The PQL value le, in general, 3 times the established MDL (Minimum Detection Limit).

Λ lace Thela 4 Randall Helander

Project Manager

24 North 21st Avenue West, Duluth, MN 55808-2107 (218) 727-6380

Chemical and Biological Testing Services

SAMPLE ANALYSIS REPORT

FOR VOLATILE ORGANIC COMPOUNDS (V.O.C.s)

a start and a start

** Laboratory Information

Era Method: 9310 Reference Method: MDH 465D Era Project # 504214-3

Chein of Custody 95136

Analysis File I.D. c:\HPCHEM\1\DATA\ MAY04\011F0101

Sample Information

Client: Accurate Environ. Testing

Sample Name: MW-3 Sample matrix: Water

> date collected: date analyzed:

Comments:

4/26/95 5/4/95

				Re	suks				
Analyte	Amount	Units	PQL vg/L	Comment	Analyte	Amount	Units	PQL ug/L	Comme
dichlorodifluoromethane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td><td>1,3-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.9		1,3-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
chloromethane	<pql< td=""><td>ug/L</td><td>0.9</td><td></td><td>1,4-dichlorobenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.9		1,4-dichlorobenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
vinyl chloride	< PQL	ug/L	0.3		1,2-dichiorobenzene	< PQL	ug/L	0.3	
bromomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>1,2-dibromo-3-chloropropane</td><td>< PQL</td><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.3	A	1,2-dibromo-3-chloropropane	< PQL	ug/L	0.9	
chloroethana	< PQL	ug/L	0.3	A	1,2,4-trichlorobenzene	< PQL	ug/L	0.9	
trichlorofluoromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td>A</td><td>hexachlorobutadiene</td><td><pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<></td></pql<>	ug/L	0.3	A	hexachlorobutadiene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
1,1-dichloroethene	< PQL	ug/L	0.3		1,2,3-trichlorobenzene	<pql< td=""><td>ug/L</td><td>0.9</td><td></td></pql<>	ug/L	0.9	
methylene chloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>8</td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3		8				
trans-1,2-dichloroethene	< PQL	ug/L	0.3		dichiorofluoromethane	< PQL	ug/L	1.0	A
1,1-dichloroethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>trichlorotrifluoroethane</td><td><pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<></td></pql<>	ug/L	0.3		trichlorotrifluoroethane	<pql< td=""><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	1.0	
2,2-dichloropropane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>ally! chloride</td><td>< PQL</td><td>ug/L</td><td>1.0</td><td></td></pql<>	ug/L	0.3		ally! chloride	< PQL	ug/L	1.0	
cis-1,2-dichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td></pql<>	ug/L	0.3						
chioroform	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>benzene</td><td></td><td>4.8 ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		benzene		4.8 ug/L	0.3	
bromochloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>toluene</td><td></td><td>0.9 ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		toluene		0.9 ug/L	0.3	
1,1,1-trichloroethane	< PQL	ug/L	0.3		ethyl benzene		0.9 ug/L	0.3	
1,1-dichloropropene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>m-xylene + p-xylene</td><td></td><td>1.7 ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		m-xylene + p-xylene		1.7 ug/L	0.3	
carbon tetrachloride	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>o-xylene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		o-xylene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,2-dichloroethane		9 ug/L	0.3		styrene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
trichloroethene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>isopropy! benzene</td><td></td><td>1.0 ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		isopropy! benzene		1.0 ug/L	0.3	
1,2-dichloropropane bromodichloromethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>n-propylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<>	ug/L	0.3		n-propylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
dibromomethane	<pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,3,5-trimethylbenzene +</td><td>< PQL</td><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3		1,3,5-trimethylbenzene +	< PQL	ug/L	0.3	
	< PQL	ug/L	0.3		2-chlorotoluene		-		
cis-1,3-dichloropropene trans-1,3-dichloropropene	<pql <pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>tert-butylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<></pql 	ug/L	0.3		tert-butylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1,1,2-trichloroethane	<pul <pql< td=""><td>ug/L</td><td>0.3</td><td></td><td>1,2,4-trimethylbenzene</td><td><pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></td></pql<></pul 	ug/L	0.3		1,2,4-trimethylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
1.3-dichloropropane	< PQL	ug/L	0.3 0.3		sec-butylbenzene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
tetrachioroethene	< POL	ug/L	0.3		p-isopropyitoluene	<pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<>	ug/L	0.3	
dibromochioromethane	< PQL	ug/L ug/L	0.3		n-butylbenzene naphthalene	<pql <pql< td=""><td>ug/L</td><td>0.3</td><td></td></pql<></pql 	ug/L	0.3	
1.2-dibromoethane	< POL	ug/L	0.3		napriciaisne	< FUL	ug/L	0.9	
chlorobenzage	< PQL	ug/L	0.3		ethyl ether	< POL		5.	
1,1,1,2-tetrachloroethane	< PQL	ug/L	0.3		acetone	<pql< td=""><td>ug/L</td><td></td><td></td></pql<>	ug/L		
bromoform	<pql< td=""><td>ug/L ug/L</td><td>0.3</td><td></td><td>methyl tertlary butyl ether</td><td><pul <pul< td=""><td>ug/L</td><td>20.</td><td>A</td></pul<></pul </td></pql<>	ug/L ug/L	0.3		methyl tertlary butyl ether	<pul <pul< td=""><td>ug/L</td><td>20.</td><td>A</td></pul<></pul 	ug/L	20.	A
1,1,2,2-tetrachloroethane	<pol< td=""><td>սց/Լ սց/Լ</td><td>0.3</td><td></td><td>methyl ethyl ketone</td><td><pul <pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></pul </td></pol<>	սց/Լ սց/Լ	0.3		methyl ethyl ketone	<pul <pql< td=""><td>ug/L</td><td>5.</td><td></td></pql<></pul 	ug/L	5.	
1,2,3-trichloropropane	<pql< td=""><td>ug/L ug/L</td><td>0.3</td><td></td><td>i tetrahvdrofuran</td><td><pul <pul< td=""><td>ug/L</td><td>- 5.</td><td>A</td></pul<></pul </td></pql<>	ug/L ug/L	0.3		i tetrahvdrofuran	<pul <pul< td=""><td>ug/L</td><td>- 5.</td><td>A</td></pul<></pul 	ug/L	- 5.	A
bromobenzene	< PQL	ug/L ug/L	0.3		methyl isobutyl ketone	<pul <pul< td=""><td>ug/L</td><td>5.</td><td>A</td></pul<></pul 	ug/L	5.	A
2-chlorotoluene	< POL	ug/L ug/L	0.3		mental scontal getone	< PUL	ug/L	5.	
4-chlorotoluene	<pul< td=""><td>ug/L ug/L</td><td>0.3</td><td></td><td>ł .</td><td></td><td></td><td></td><td></td></pul<>	ug/L ug/L	0.3		ł .				
	. Srut	Ug/L	0.3		8				

COMMENTS

A

The QC Check Standard analyzed with this sample failed our QC recovery requirements for these compounds.

PQL = Practical Quantitation Limit. This is an established quantitation limit which takes into account all the inherent method limitations related to routine sample analyses. The POL value is, in general, 3 times the established MDL (Minimum Detection Limit).

lall Helo <-

Randall Helander Project Manager

Accurate Environmental Testing 2231 Catlin Avenue #420 Superior WI 54880

PHONE: (715) 392-5844 🔶 FAX: (715) 394-7414 🔶

(800)**TEST-AET**

Chain of Custody # 95259 Bob Maslowksi Lester Park Golf Course Project Name: **Remediation Services Inc.** City of Duluth Client: 102 S. 29th Avenue W., Suite 100 Gary A. Johnson Sampler Name: Duluth, MN 55806 8/11/95 8/11/95 8/11/95 8/11/95 Collected on 8/11/95 8/11/95 8/11/95 8/11/95 Received on NA Field Field **DRO Preserved on** Field 8/18/95 NA 8/18/95 8/18/95 DRO Extracted on 9/8/95 NA 9/8/95 9/8/95 DRO Analyzed on 8/25/95 8/22/95 8/25/95 8/22/95 GROBTEX Analyzed on MW-2 MW-3 MW-2 Sample Description MW-1 Duplicate 95259-04 95259-01 95259-02 95259-03 Lab I.D. WATER WATER WATER WATER LOQ Parameter on ice on ice on ice NA on ice Temperature 160 ug/L 120 ug/L 710 ug/L. NA 100 ug/L Diesel Range Organics < LOQ 7200 ug/L 7000 ug/L < LOQ 100 ug/L Gasoline Range Organics < LOQ 370 ug/L 380 ug/L < LOQ 5 ug/L Benzene < LOQ < LOQ < LOQ < LOQ 5 ug/L Toluene < LOQ < LOQ 120 ug/L 120 ug/L 5 ug/L Ethylbenzene < LOQ < LOQ < LOQ < LOQ 5 ug/L Total Xylene 92% 93% 83% NA 90% Internal Standard none none none none none Comments

LOQ indicates that the limit of quantitation was not met in analysis.

NA implies that this parameter was not analyzed or not applicable to test run

Filled out by:

9/13/95 1:28 PM

9/13/95

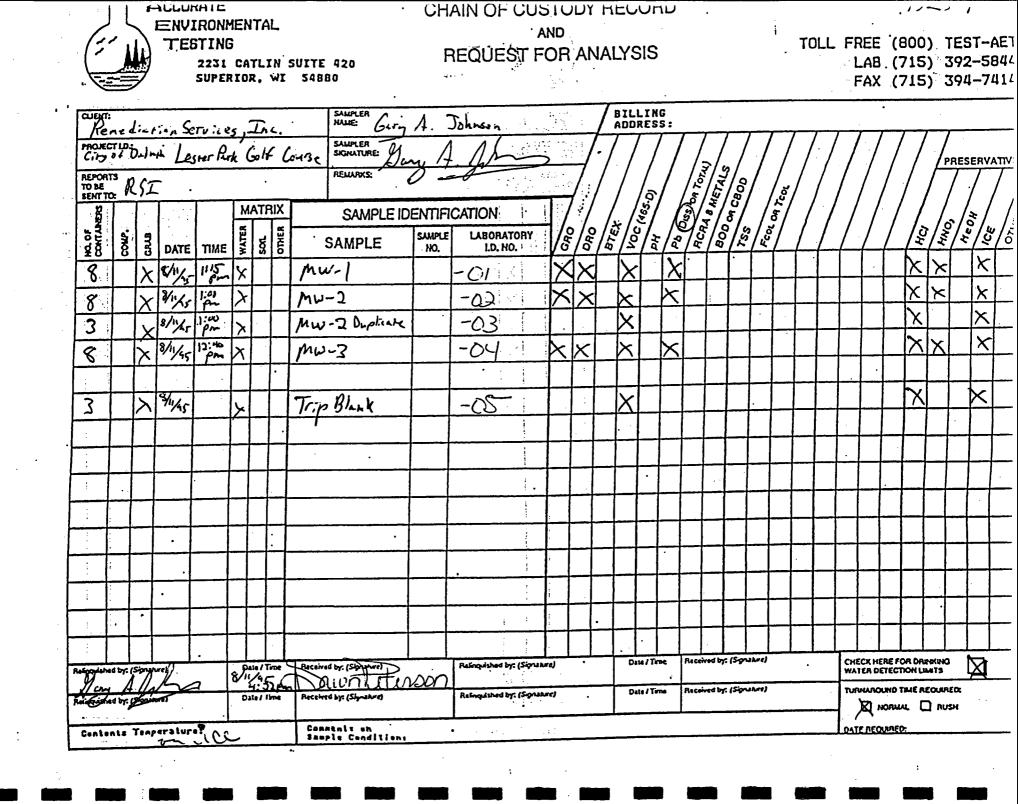
Date:

Date:

or.

Checked by:

The following tests were performed according to the WI DRN specification listed in ch. NR 149 of the WI Adm. Code. WI DNR Certification # 816079330



Accurate Environmental Testing 2231 Catlin Avenue #420 � Superior WI 54880

PHONE: (715) 392-5844 FAX: (715) 394-7414

Bob Maslowksi Remediation Services Inc. 102 S. 29th Avenue W., Suite 100 Duluth, MN 55806

Chain of Custody # **Project Name:** Client: Sampler Name:

95259 Lester Park Golf Course City of Duluth Gary A. Johnson

(800)TEST-AET

	. *	· · ·				
	Collected on	8/11/95	8/11/95	8/11/95	8/11/95	
	Received on	8/11/95	8/11/95	8/11/95	8/11/95	
	DRO Preserved on	Field	Field	NA	Field	
	DRO Extracted on	8/18/95	8/18/95	NA	8/18/95	
	DRO Analyzed on	9/8/95	9/8/95	NA	9/8/95	
	GROBTEX Analyzed on	8/22/95	8/25/95	8/25/95	8/22/95	
	Sample Description	MVV-1	MW-2	MW-2 Duplicate	MW-3	
\sim	Lab I.D.	95259-01	95259-02	95259-03	95259-04	
Parameter	LÞQ	WATER	WATER	WATER	WATER	
Temperature /		on ice	on ice	on ice	on ice	
Diesel Range Organics	100 ug/L	120 ug/L	710 ug/L	NA	160 ug/L	
Gasoline Range Organics	100 ug/L	< 10Q	< LOQ	LOQ	< LOQ	
Benzene /	5 ug/L	< LOQ	370 ug/L	380 ug/L	< LOQ	
Toluene	5 ug/L	< LOQ	< 10Q	< LOQ	< 10Q	
Ethylbenzene	5 ug/L.	< LOQ	120 ug/L	120 ug/L	< LOQ	
Total Xylene	5 ug/L	< LOQ	< LOQ	< LOQ	< LOQ	
internal Standard	NA	90%				
Comments	none	none	;	mw	-2	

LOQ indicates that the limit of quantitation was not met in analysis. NA implies that this parameter was not analyzed or not applicable to test run

Filled out by: Checked by:

The following tests were performed according to the WI DRN : of the WI Adm. Code. WI DNR Certification # 816079330

High Tetrahydrafuran Bengene Naphthalene MEIL (147 Rown

PCA04-1531

		· · ·					:		1	Page of
MVTL	LABORATORIES	S, Inc.	Nº	5371	4	:	· . · ·	WORK	ORDER #	22-499
	New Ulm, MN 56073	Pi	roject Name/I	Number						
	one: (507) 354-8517 -3557 Fax: (507) 359-1231		CODUPGO	95259	· .	v.'				
			PI FASE DO N	JOT WRITE IN	THE S	SHAD	ED A			
Report to:H	ccurate Environment 231 Certun Ave, Suit 24100 WI 54880 -392-5844 Fax: 715-392	al TestingInvoi	ice to: Accu	nate Envi	ron	mel	ntal	Testing Nam	e of Sampler	Johnson
Address: 22	seio WI 54880		ess: (223). (ff: Su	Caton Hu Derioz W	Le , E	5488	30	Repr	resenting:	
Phone: 7/5	<u>-392-5844 Fax: 715-39</u>	2-5843 Phor Samp	<u>ne: 715-3</u>	7 <u>2 - 584</u> Date	<u>14</u>	Туре с	of Samı	ble (Matrix or Subst	<u>D</u> ance)	
Lab Use	Your Sample I.D. or Number	Descrip	otion	Time	Soil	Water	Food	14 Other (Please B		Analyze For:
Only	Example	Tank Bo Tank		5/20/91 11:45 a.m.			X	Sampled Liqui Not bottom e	ld Layer sludge	Vitamin A, TKN, Iron, Calcium BOD, COD, Acetone, Shelf Life
95-22002	195259-01	MW-1		8-11-95 1:15 pm		Y				VCC, Pb (Diss.)
And Addition and Addition and Addition	195259-02	mw-2		8-11-95 1:00 pm		Х	. 1		s kontes	VOC, Pb(Diss.)
STO MANUAL CONTRACTOR	895259-03	MW-2 N	plicato	8-11-95- 1:0000		X				VOC
	995259-04	MW-3	7	8-11-95 12:40pm		X				VOC PG(Diss.)
12003	Constraint of the state of the	Two Bla	nk	8-11-95		X				VOC
4-00-0		Provide and the second		···			1			
						÷.				(heck all Samples
P	and the second	25 	12.	······································					an the state	for bunking water
Ă		· ·								Petection limits.
4		· · · · · · · · · · · · · · · · · · ·	1974 - 1974 -							
1532		tt. Na en tra								
	Transferred by:	Comm (Sample Co	ents:	Date Time		Re	eceive	d by:	, C (Sam	omments: Date oC
1	Duntiterson			8-14-95	Ma	nal d	You)	Heme	PAT I	BAUg95
2	+ IWA JUADON	onuc		1:00pm		/ ~	<u>ww</u>			
3 <u>2</u> 										
4							,			
Disposed of					Disp	osal	Com	ments:	Marine Marine	
	- 1							•	A	
		····					•••••••	n de de		
	EW ULM MARKED F sub ernet the	wolinijie	SI OU	ple	WI	urn		on dic	H V	Brour Mits and Annal Annal





P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20026 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

Sample Description: 95259-01 MW-1

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

nalyte Result		e MDL		Method	Date Analyzed Time Analyzed Analyst		
Lead, Dissolved	< 2	ug/L	2.0	239.2	8/30/95	5:00	TB

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1533



LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20026 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Sample Description: 95259-01 MW-1

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 19 Aug 1995 VOC Dilution Factor: 1

VOLATILE ORGANICS	Result	Units	RL	Analwat
	TESUIC		RL =======	Analyst
Chloroethane	< 0.6	ug/L	0.6	JO
Chloromethane	< 1.0	ug/L	1.0	JO
Bromomethane	< 1.0	ug/L	1.0	JO
Dichlorodifluoromethane	< 0.5	ug/L	0.5	JO
Vinyl Chloride	< 0.3	ug/L	0.3	JO
Methylene Chloride	< 1.0	ug/L	1.0	JO
Trichlorofluoromethane	< 1.0	ug/L	1.0	JO
1,1-Dichloroethene	< 1.0	ug/L	1.0	JO
1,1-Dichloroethane	< 0.3	ug/L	0.3	JO
trans-1,2-Dichloroethene	< 0.6	ug/L	0.6	JO
Chloroform	< 0.8	ug/L	0.8	JO
1,2-Dichloroethane	0.9	ug/L	0.6	JO
1,1,1-Trichloroethane	< 0.8	ug/L	0.8	JO
Carbon Tetrachloride	< 0.9	ug/L	0.9	JO
Bromodichloromethane	< 0.6	ug/L	0.6	JO
1,2-Dichloropropane	< 0.9	ug/L	0.9	JO
trans-1,3-Dichloropropene	< 0.5	ug/L	0.5	JO
1,1,2-Trichloroethylene	< 0.7	ug/L	0.7	JO
Chlorodibromomethane/Dibromochloromethan	< 0.7	ug/L	0.7	JO
1,1,2-Trichloroethane	< 0.5	ug/L	0.5	JO
cis-1,3-Dichloropropene	< 0.5	ug/L	0.5	JO
Bromoform	< 1.0	ug/L	1.0	JO
1,1,2,2-Tetrachloroethane	< 0.4.	ug/L	0.4	JO
Tetrachloroethene	< 0.5	ug/L	0.5	JO
Chlorobenzene	< 0.3	ug/L	0.3	JO
Benzene	< 0.5	ug/L	0.5	JO

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.



VTL LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20026 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

VOC Date Analyzed: 19 Aug 1995 VOC Dilution Factor: 1

	VOO DIIUU	Ion rao		
Sample Description: 95259-01 MW-1 VOLATILE ORGANICS	Result	Units	RL	Analyst
	Result ====== < 0.5 < 0.5 < 0.8 < 0.5 < 0.6 < 0.5 < 0.5 < 0.5 < 0.4	Units ===== ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		Analyst JO JO JO JO JO JO JO JO JO JO
1,1-Dichloropropene Dichlorofluoromethane 1,1,2-Trichlorotrifluoroethane Ethyl Ether Acetone Dibromomethane 2,2-Dichloropropane Bromochloromethane Methyl tert-butyl Ether	< 0.5 < 0.5 < 1.0 < 1.3 < 5.0 < 0.6 < 1.6 < 0.5 < 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.5 0.5 1.0 1.3 5.0 0.6 1.6 0.5 1.0	10 10 10 10 10 10 10 10 10

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1535



LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20026 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 19 Aug 1995 VOC Dilution Factor: 1

Sample Description: 95259-01 MW-1	
VOLATILE ORGANICS	F
22822222282222222222222222222222222222	=
Styrene Styrene	•
n-Propylbenzene	•
Bromobenzene	•
2-Chlorotoluene	•
1,3,5-Trimethylbenzene	•
4-Chlorotoluene	•
t-Butylbenzene	•
1,2,4-Trimethylbenzene	•
sec-Butylbenzene	•
p-Isopropyltoluene	•
n-Butylbenzene	•
1,2-Dibromo-3-chloropropane	•
1,2,4-Trichlorobenzene	•
Hexachlorobutadiene	•
Naphthalene	•
1,2,3-Trichlorobenzene	

Re	esult	Units	RL	Analyst
==	====	====	======	=========
< ا	0.5	ug/L	0.5	JO
<	0.5	ug/L	0.5	JO
<	1.0	ug/L	1.0	JO
<	0.4	ug/L	0.4	JO
<	0.5	ug/L	0.5	JO
<	0.4	ug/L	0.4	JO
<	0.6	ug/L	0.6	JO
<	0.5	ug/L	0.5	JO
<	0.4	ug/L	0.4	JO
<	0.4	ug/L	0.4	JO
<	0.5	ug/L	0.5	JO
<	1.0	ug/L	1.0	JO
<	0.5	ug/L	0.5	JO
<	1.0	ug/L	1.0	JO
<	0.6	ug/L	0.6	JO
<	1.0	ug/L	1.0	JO

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1536



VTL LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20027 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

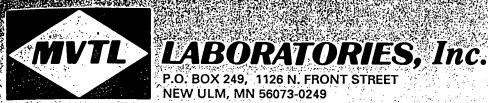
Sample Description: 95259-02 MW-2

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

Analyte	•	Result	t	MDL	Method	Date Analyze	ed Time Anal	yzed Analyst
Lead, Dissolved		2.4	ug/L	2.0	239.2	8/30/95	5:00	TB

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1537





P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20027 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 23 Aug 1995 VOC Dilution Factor: 10

	VOC DITUU	Ion Fao		
Sample Description: 95259-02 MW-2 VOLATILE ORGANICS	Result	Units	RL	Analyst
	======	=====		
Chloroethane	< 6.0	ug/L	6.0	DWR
Chloromethane	< 10.0		10.0	DWR
Bromomethane	< 10.0	<u> </u>	10.0	DWR
Dichlorodifluoromethane	< 5.0	ug/L	5.0	DWR
Vinyl Chloride	< 3.0	ug/L	3.0	DWR
Methylene Chloride	< 10.0		10.0	DWR
Trichlorofluoromethane	< 10.0	ug/L	10.0	DWR
1,1-Dichloroethene	< 10.0	ug/L	10.0	DWR
1,1-Dichloroethane	< 3.0	ug/L	3.0	DWR
trans-1,2-Dichloroethene	< 6.0	ug/L	6.0	DWR
Chloroform	< 8.0	ug/L	8.0	DWR
1,2-Dichloroethane		u g/ L	6.0	DWR
1,1,1-Trichloroethane	< 8.0	ug/L	8.0	DWR
Carbon Tetrachloride	< 9.0	ug/L	9.0	DWR
Bromodichloromethane	< 6.0	ug/L	6.0	DWR
1,2-Dichloropropane	< 9.0	ug/L	9.0	DWR
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	DWR
1,1,2-Trichloroethylene	< 7.0	ug/L	7.0	DWR
Chlorodibromomethane/Dibromochloromethan	< 7.0	ug/L	7.0	DWR
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	DWR
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	DWR
Bromoform	< 10.0	ug/L	10.0	DWR
1,1,2,2-Tetrachloroethane	< 4.0	ug/L	4.0	DWR
Tetrachloroethene	< 5.0	ug/L	5.0	DWR
Chlorobenzene	< 3.0	ug/L	3.0	DWR
Benzene	360.0	ug/L	5.0	DWR

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.

EPA SW-846 Method 8021 MDH 465E

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880





P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20027 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 23 Aug 1995 **VOC Dilution Factor: 10**

	Diluo	1011 100	001. 10	
Sample Description: 95259-02 MW-2	5 14		D .	
VOLATILE ORGANICS	Result	Units	RL	Analyst
***************************************	======	=====	=======	==========
Toluene	< 5.0	ug/L	5.0	DWR
Ethyl Benzene	170.0	ug/L	5.0	DWR
1,2-Dichlorobenzene	< 8.0	ug/L	8.0	DWR
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	DWR
1,4-Dichlorobenzene	< 6.0	ug/L	6.0	DWR
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	DWR
1,3-Dichloropropane	< 5.0	ug/L	5.0	DWR
1,2,3-Trichloropropane	< 4.0	ug/L	4.0	. DWR
Allyl Chloride	< 10.0	ug/L	10.0	DWR
1,2-Dibromoethane	< 10.0	ug/L	10.0	DWR
Methyl Ethyl Ketone	< 50.0	ug/L	50.0	DWR
Methyl Isobutyl Ketone	< 20.0	ug/L	20.0	DWR
Tetrahydrofuran	200.0	ug/L	50.0	DWR
m-Xylene and p-Xylene	260.0	ug/L	10.0	DWR
o-Xylene	42.0	ug/L	5.0	DWR
Isopropylbenzene	25.0	ug/L	5.0	DWR
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	DWR
1,1-Dichloropropene	< 5.0	ug/L	5.0	DWR
Dichlorofluoromethane	< 5.0	ug/L	5.0	DWR
1,1,2-Trichlorotrifluoroethane	< 10.0		10.0	DWR
Ethyl Ether	135.0	ug/L	13.0	DWR
Acetone	< 50.0	ug/L	50.0	DWR
Dibromomethane	< 6.0	ug/L	6.0	DWR
2,2-Dichloropropane	< 16.0		16.0	DWR
Bromochloromethane	< 5.0	ug/L	5.0	DWR
Methyl tert-butyl Ether	< 10.0	ug/L	10.0	DWR

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1539

EPA SW-846 Method 8021 MDH 465E





P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20027 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 23 Aug 1995 **VOC Dilution Factor: 10**

Sample Description: 95259-02 MW-2 VOLATILE ORGANICS	D
VULATILE URGANICS	Resi
	===:
Styrene	· < 5
n-Propylbenzene	30.0
Bromobenzene	< 10
2-Chlorotoluene	< 4
1,3,5-Trimethylbenzene	70.0
4-Chlorotoluene	< 4
t-Butylbenzene	< 6
1,2,4-Trimethylbenzene	100
sec-Butylbenzene	5.0
p-Isopropyltoluene	< 4
n-Butylbenzene	20.
1,2-Dibromo-3-chloropropane	< 1
1,2,4-Trichlorobenzene	< 5
Hexachlorobutadiene	< 10
Naphthalene	100
1,2,3-Trichlorobenzene	< 10

Result	Units	RL	Analyst
======	=====	======	x02252223
< 5.0	ug/L	5.0	DWR
30.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
< 4.0	ug/L	4.0	DWR
70.0	ug/L	5.0	DWR
< 4.0	ug/L	4.0	DWR
< 6.0	ug/L	6.0	DWR
100.0	ug/L	5.0	DWR
5.0	ug/L	4.0	DWR
< 4.0	ug/L	4.0	DWR
20.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
< 5.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
100.0	ug/L	6.0	DWR
< 10.0	ug/L	10.0	DWR

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1540





LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20028 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

EPA SW-846 Method 8021MDH 465EVOC DateVOC DateVOC Date

Sample Description: 95259-03 MW-2 DUPLICATE VOLATILE ORGANICS Chloroethane Chloromethane Bromomethane Dichlorodifluoromethane Vinyl Chloride Methylene Chloride Trichlorofluoromethane 1,1-Dichloroethene 1,1-Dichloroethane trans-1,2-Dichloroethene Chloroform 1,2-Dichloroethane 1,1,1-Trichloroethane Carbon Tetrachloride Bromodichloromethane 1,2-Dichloropropane trans-1,3-Dichloropropene 1,1,2-Trichloroethylene Chlorodibromomethane/Dibromochloromethan 1,1,2-Trichloroethane cis-1,3-Dichloropropene Bromoform 1,1,2,2-Tetrachloroethane Tetrachloroethene Chlorobenzene Benzene

VOC Date Analyzed: 23 Aug 1995 VOC Dilution Factor: 10

Result ===== < 6.0 < 10.0 < 10.0 < 5.0 < 3.0 < 10.0 < 10.0	Units ===== ug/L ug/L ug/L ug/L ug/L ug/L ug/L	RL ======= 6.0 10.0 10.0 5.0 3.0 10.0 10.0	Analyst ====================================
< 10.0	ug/L	10.0	DWR
< 3.0	ug/L	3.0	DWR
< 6.0	ug/L	6.0	DWR
< 8.0	ug/L	8.0	DWR
11.0	ug/L	6.0	DWR
< 8.0	ug/L	8.0	DWR
< 9.0	ug/L	9.0	DWR
< 6.0	ug/L	6.0	DWR
< 9.0	ug/L	9.0	DWR
< 5.0	ug/L	5.0	DWR
< 7.0	ug/L	7.0	DWR
< 7.0	ug/L	7.0	DWR
< 5.0	ug/L	5.0	DWR
8.7	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
< 4.0	ug/L	4.0	DWR
< 5.0	ug/L	5.0	DWR
< 3.0	ug/L	3.0	DWR
360.0	ug/L	5.0	DWR

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.



VTL LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20028 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 23 Aug 1995 VOC Dilution Factor: 10

9 13	VOC Dilut	ion Fac	tor: 10	
Sample Description: 95259-03 MW-2 DUPLICATE				
VOLATILE ORGANICS	Result	Units	RL	Analyst
\$2252252525555555555555555555555555555	=====	=====	=======	================
Toluene	< 5.0	ug/L	5.0	DWR
Ethyl Benzene	160.0	ug/L	5.0	DWR
1,2-Dichlorobenzene	< 8.0	ug/L	8.0	DWR
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	DWR
1,4-Dichlorobenzene	< 6.0	ug/L	6.0	DWR
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	DWR
1,3-Dichloropropane	< 5.0	ug/L	5.0	DWR
1,2,3-Trichloropropane	< 4.0	ug/L	4.0	DWR
Allyl Chloride	< 10.0	ug/L	10.0	DWR
1,2-Dibromoethane	< 10.0	ug/L	10.0	DWR
Methyl Ethyl Ketone	< 50.0	ug/L	50.0	DWR
Methyl Isobutyl Ketone	< 20.0	ug/L	20.0	DWR
Tetrahydrofuran	< 50.0	ug/L	50.0	DWR
m-Xylene and p-Xylene	240.0	ug/L	10.0	DWR
o-Xylene	40.0	ug/L	5.0	DWR
Isopropylbenzene	23.0	ug/L	5.0	DWR
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	DWR
1,1-Dichloropropene	< 5.0	ug/L	5.0	DWR
Dichlorofluoromethane	< 5.0	ug/L	5.0	DWR
1,1,2-Trichlorotrifluoroethane	< 10.0	ug/L	10.0	DWR
Ethyl Ether	160.0	ug/L	13.0	DWR
Acetone	< 50.0	ug/L	50.0	DWR
Dibromomethane	< 6.0	ug/L	6.0	DWR
2,2-Dichloropropane	< 16.0	ug/L	16.0	DWR
Bromochloromethane	< 5.0	ug/L	5.0	DWR
Methyl tert-butyl Ether	< 10.0	ug/L	10.0	DWR

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1542



VTL P.O. BOX 249, 1126 N. FRONT STREET



NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20028 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

EPA SW-846 Method 8021 MDH 465E

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

n-Propylbenzene Bromobenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene t-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene p-Isopropyltoluene n-Butylbenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene VOC Date Analyzed: 23 Aug 1995 VOC Dilution Factor: 10

Result	Units	RL	Analyst
=====	=====	=======	=======
< 5.0 ·	ug/L	5.0	DWR
27.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
< 4.0	ug/L	4.0	DWR
60.0	ug/L	5.0	DWR
< 4.0	ug/L	4.0	DWR
< 6.0	ug/L	6.0	DWR
90.0	ug/L	5.0	DWR
4.0	ug/L	4.0	DWR
< 4.0	ug/L	4.0	DWR
20.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
< 5.0	ug/L	5.0	DWR
< 10.0	ug/L	10.0	DWR
90.0	ug/L	6.0	DWR
< 10.0	ug/L	10.0	DWR

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1543



LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20029 Work Order #: 22-499 Account #: 019099

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

Sample Description: 95259-04 MW-3

Analyte	Result	·	MDL	Method	Date Analyzed	Time Ana	alyzed Analyst
Lead, Dissolved	< 2	ug/L	2.0	239.2	8/30/95	5:00	TB

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1544



MVTL LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20029 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

S

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 18 Aug 1995

ample	Des	criț	ption	n: 9	525	9-04	4	MW-	-3		
OLATII	LE O	RGAN	VICS								
=====	====	====	====	====	===	===:	= =	==:	==:	==	==

	Chloroethane
	Chloromethane
	Bromomethane
	Dichlorodifluoromethane
	Vinyl Chloride
	Methylene Chloride
	Trichlorofluoromethane
	1,1-Dichloroethene
	1,1-Dichloroethane
	trans-1,2-Dichloroethene
	Chloroform
	1,2-Dichloroethane
	1,1,1-Trichloroethane
8	Carbon Tetrachloride
	Bromodichloromethane
	1,2-Dichloropropane
-	trans-1,3-Dichloropropene
	1,1,2-Trichloroethylene
	Chlorodibromomethane/Dibromochloromethan
_	1,1,2-Trichloroethane
	cis-1,3-Dichloropropene
	Bromoform
	1,1,2,2-Tetrachloroethane
۲	Tetrachloroethene
	Chlorobenzene
	Benzene

VOC Dilution Factor: 1 Deault Unite DT

	Result	Units	RL	Analyst
	=====	=====	2222222	===========
	< 0.6	ug/L	0.6	JO
	< 1.0	ug/L	1.0	JO
	< 1.0	ug/L	1.0	JO
	< 0.5	ug/L	0.5	JO
	< 0.3	ug/L	0.3	JO
	< 1.0	ug/L	1.0	JO
	< 1.0	ug/L	1.0	JO
	< 1.0	ug/L	1.0	JO
	< 0.3	ug/L	0.3	JO
	< 0.6	ug/L	0.6	JO
	< 0.8	ug/L	0.8	JO
,	4.4	ug/L	0.6	JO
	< 0.8	ug/L	0.8	JO
	< 0.9	ug/L	0.9	JO
	< 0.6	ug/L	0.6	JO
	< 0.9	ug/L	0.9	JO
	< 0.5	ug/L	0.5	JO
	< 0.7	ug/L	0.7	JO
	< 0.7	ug/L	0.7	JO
	< 0.5	ug/L	0.5	JO
	< 0.5	ug/L	0.5	JO
	< 1.0	ug/L	1.0	JO
	< 0.4	ug/L	0.4	JO
	< 0.5	ug/L	0.5	JO
	< 0.3	_ug/L	0.3	JO
	2.1	ug/L	0.5	JO

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1545



LABORATORIES, Inc.



P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20029 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Sample Description: 95259-04 MW-3

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 18 Aug 1995 VOC Dilution Factor: 1

	_			
VOLATILE ORGANICS	Result	Units	RL	Analyst
======================================	222222	=====	=======	==========
	< 0.5	ug/L	0.5	JO
Ethyl Benzene	< 0.5	ug/L	0.5	JO
1,2-Dichlorobenzene	< 0.8	ug/L	0.8	JO
1,3-Dichlorobenzene	< 0.5	ug/L	0.5	JO
1,4-Dichlorobenzene	< 0.6	ug/L	0.6	JO
cis-1,2-Dichloroethene	< 0.5	ug/L	0.5	JO
1,3-Dichloropropane	< 0.5	ug/L	0.5	JO
1,2,3-Trichloropropane	< 0.4	ug/L	0.4	JO
Allyl Chloride	< 1.0	ug/L	1.0	JO
1,2-Dibromoethane	< 1.0	ug/L	1.0	JO
Methyl Ethyl Ketone	< 5.0	ug/L	5.0	JO
Methyl Isobutyl Ketone	< 2.0	ug/L	2.0	JO
Tetrahydrofuran	< 5.0	ug/L	5.0	JO
m-Xylene and p-Xylene	< 1.0	ug/L	1.0	JO
o-Xylene	< 0.5	ug/L	0.5	JO
Isopropylbenzene	< 0.5	ug/L	0.5	JO
1,1,1,2-Tetrachloroethane	< 0.5	ug/L	0.5	JO
1,1-Dichloropropene	< 0.5	ug/L	0.5	JO
Dichlorofluoromethane	< 0.5	ug/L	0.5	JO
1,1,2-Trichlorotrifluoroethane	< 1.0	ug/L	1.0	JO
Ethyl Ether	< 1.3		1.3	JO
Acetone	< 5.0	ug/L	5.0	JO
Dibromomethane	< 0.6 [.]	ug/L	0.6	JO
2,2-Dichloropropane	< 1.6		1.6	JO
Bromochloromethane	< 0.5	ug/L	0.5	JO
Methyl tert-butyl Ether	< 1.0	ug/L	1.0	JO
		-		

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.

PCA04-1546



VTL P.O. BOX 249, 1126 N. FRONT STREET



NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20029 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

= S n B

n

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 18 Aug 1995 VOC Dilution Factor: 1

Sample Description: 95259-04 MW-3	D 14	11	DT	A
VOLATILE ORGANICS	Result		RL	Analyst
		=====	======	
Styrene	< 0.5	ug/L	0.5	JO
n-Propylbenzene	< 0.5	ug/L	0.5	JO
Bromobenzene	< 1.0	ug/L	1.0	JO
2-Chlorotoluene	< 0.4	ug/L	0.4	JO
1,3,5-Trimethylbenzene	< 0.5	ug/L	0.5	JO
4-Chlorotoluene	< 0.4	ug/L	0.4	JO
t-Butylbenzene	< 0.6	ug/L	0.6	JO
1,2,4-Trimethylbenzene	< 0.5	ug/L	0.5	JO
sec-Butylbenzene	< 0.4	ug/L	0.4	JO
p-Isopropyltoluene	< 0.4	ug/L	0.4	JO
n-Butylbenzene	< 0.5	ug/L	0.5	JO
1,2-Dibromo-3-chloropropane	< 1.0	ug/L	1.0	JO
1,2,4-Trichlorobenzene	< 0.5	ug/L	0.5	JO
Hexachlorobutadiene	< 1.0	ug/L	1.0	JO
Naphthalene	0.7	ug/L	0.6	JO
1,2,3-Trichlorobenzene	< 1.0	ug/L	1.0	JO

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1547



ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

LABORATORIES, Inc. P.O. BOX 249, 1126 N. FRONT STREET



NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20030 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 17 Aug 1995 VOC Dilution Factor: 1

Sample Description: 95259-05 TRIP BLANK	VOO DIIUU	ION Fac		
VOLATILE ORGANICS	Result	Units	RL	Analyst
	======	=====	======	
Chloroethane	< 0.6	ug/L		JO
Chloromethane	< 1.0	ug/L	1.0	JO
Bromomethane	< 1.0	ug/L	1.0	JO
Dichlorodifluoromethane	< 0.5	ug/L	0.5	JO
Vinyl Chloride	< 0.3		0.3	JO
Methylene Chloride	< 1.0	ug/L	1.0	JO
Trichlorofluoromethane	< 1.0		1.0	JO
1,1-Dichloroethene	< 1.0	ug/L	1.0	JO
1,1-Dichloroethane	< 0.3	ug/L	0.3	JO
trans-1,2-Dichloroethene	< 0.6	ug/L	0.6	JO
Chloroform	< 0.8	ug/L	0.8	JO
1,2-Dichloroethane	2.3	ug/L	0.6	JO
1,1,1-Trichloroethane	< 0.8	ug/L	0.8	JO
Carbon Tetrachloride	< 0.9	ug/L	0.9	JO
Bromodichloromethane	< 0.6	ug/L	0.6	JO
1,2-Dichloropropane	< 0.9	ug/L	0.9	JO
trans-1,3-Dichloropropene	< 0.5	ug/L	0.5	JO
1,1,2-Trichloroethylene	< 0.7	ug/L	0.7	JO
Chlorodibromomethane/Dibromochloromethan	< 0.7	ug/L	0.7	JO
1,1,2-Trichloroethane	< 0.5	ug/L	0.5	JO
cis-1,3-Dichloropropene	< 0.5	ug/L	0.5	JO
Bromoform	< 1.0	ug/L	1.0	JO
1,1,2,2-Tetrachloroethane	< 0.4	ug/L	0.4	JO
Tetrachloroethene		ug/L		JO
Chlorobenzene	< 0.3	ug/L		JO
Benzene	< 0.5	ug/L ug/L	0.5	JO
	1 0.0	ug/ L	0.0	00

RL = Reporting Limit

All data for this report has been approved by MVTL Laboratory Management.





P.O. BOX 249, 1126 N. FRONT STREET NEW ULM, MN 56073-0249 PHONE (507) 354-8517 WATS (800) 782-3557 FAX (507) 359-2890

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20030 Work Order #: 22-499 Account #: 019099

JAY THOMPSON ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420 SUPERIOR WI 54880

EPA SW-846 Method 8021 MDH 465E

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

VOC Date Analyzed: 17 Aug 1995 **VOC Dilution Factor: 1**

VOLATILE ORGANICS	Result ======	Units =====	RL ======	Analyst
Toluene	< 0.5	ug/L	0.5	JO
Ethyl Benzene	< 0.5	ug/L	0.5	JO
1,2-Dichlorobenzene	< 0.8			JO
1,3-Dichlorobenzene	< 0.5	ug/L		JO
1,4-Dichlorobenzene	< 0.6	ug/L	0.6	JO
cis-1,2-Dichloroethene	< 0.5			JO
1,3-Dichloropropane	< 0.5	ug/L		JO
1,2,3-Trichloropropane	< 0.4			JO
Allyl Chloride	< 1.0		1.0	JO
1,2-Dibromoethane	< 1.0		1.0	JO
Methyl Ethyl Ketone	< 5.0	ug/L	5.0	JO
Methyl Isobutyl Ketone	< 2.0		2.0	JO 🕤
Tetrahydrofuran	< 5.0		5.0	JO
m-Xylene and p-Xylene	< 1.0	ug/L		JO
o-Xylene	< 0.5		0.5	JO
Isopropylbenzene	< 0.5		0.5	JO
1,1,1,2-Tetrachloroethane	< 0.5		0.5	JO
1,1-Dichloropropene	< 0.5			JO
Dichlorofluoromethane	< 0.5		0.5	JO
1,1,2-Trichlorotrifluoroethane	< 1.0		1.0	JO
Ethyl Ether	< 1.3	ug/L	1.3	JO
Acetone	9.5	ug/L	5.0	JO
Dibromomethane	< 0.6		0.6	JO
2,2-Dichloropropane	< 1.6	ug/L	1.6	JO
Bromochloromethane		ug/L		JO
Methyl tert-butyl Ether	< 1.0	ug/L	1.0	JO

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1549



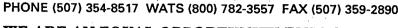
sec-Butylbenzene p-Isopropyltoluene n-Butylbenzene

Naphthalene

1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene

1,2,3-Trichlorobenzene

MVTL LABORATORIES, Inc. P.O. BOX 249, 1126 N. FRONT STREET



WE ARE AN EQUAL OPPORTUNITY EMPLOYER

Report Date: 31 Aug 1995

Lab Number: 95-L20030 Work Order #: 22-499 Account #: 019099

Date Received: 15 Aug 1995 Date Sampled: 11 Aug 1995

Temperature at Receipt: ON ICE Project Number: CODLPGC95259

EPA SW-846 Method 8021 MDH 465E

ACCURATE ENVIRONMENTAL 2231 CATLIN AVE STE 420

SUPERIOR WI 54880

Sample Description: 95259-05 TRIP BLANK VOLATILE ORGANICS

Styrene n-Propylbenzene Bromobenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene t-Butylbenzene 1,2,4-Trimethylbenzene

VOC Date Analyzed: 17 Aug 1995 VOC Dilution Factor: 1

D 14			
Result	Units	RL	Analyst
=====	=====	======	
< 0.5	ug/L	0.5	JO
< 0.5	ug/L	0.5	JO
< 1.0	ug/L	1.0	JO
< 0.4	ug/L	0.4	JO
< 0.5	ug/L	0.5	JO
< 0.4	ug/L	0.4	JO
< 0.6	ug/L	0.6	JO
< 0.5	ug/L	0.5	JO
< 0.4	ug/L	0.4	JO
< 0.4	ug/L	0.4	JO
< 0.5	ug/L	0.5	JO
< 1.0	ug/L	1.0	JO
< 0.5	ug/L	0.5	JO
< 1.0	ug/L	1.0	JO
< 0.6	ug/L	0.6	JO
< 1.0	ug/L	1.0	JO

RL = Reporting Limit All data for this report has been approved by MVTL Laboratory Management.

PCA04-1550

	11			ENV	6TIN 2231	G . c	ATL	IN	SUITE 420 I 54880		IAIN UF CUS REQUEST F	٩ND		4)	•				то		FREE LAB	: (8). (7	300 715) 3		5844
• •	CUENT:		lic	κτα η ς	oru tu		\mathcal{T}		SAMPLER NAME: GAT	A.	Johnson														•				. [
				+ Le		rk	G.I	4	COUSE REMARKS:	ny /-	A. A.	>			7	7	RCA Carl	BOD CHETALS	200	7	7	<u> </u>	/	[]			РЯ		
	25						TAN	_		DENTIF	ICATION		7./		65. L				้ ชื่/ รู		バー/ チー/		/	//	' /			=	' /s
·	HO, OF CONTANENS	ai S	33	DATE	TIME	WATER	z Jos	отнея	SAMPLE	SAMPLE NO.	LABORATORY I.D. NO.	1/8		BTEX		ξ/å			152	Fear De				/ /	\square	<u> 2</u>	ONIT ON	heon ICE	orhen Orhen
	8			8/11/25				T	mw-1	1	-01	X	X		<	X	1					·				X	\times	>	
ľ	8		X	2/11/5	1:00 pm	2	-		Mw-2		-02	X	X	X	·	X								_		X	\times	X	
ľ	3		X	8/11/45	1:00 pm	X			MW-2 Dupticate	·	-03	Γ		X												$\underline{\lambda}$		\mathbf{x}	
ĺ	8	× 8/11/45 pm × MW-3							Mw-3		-04	X	X	X		X										Σ	X	X	<u> </u>
																								<u> </u>		_			
	3		ト	4/1/45		2			Trip Blank		-05				·									_		X		X	
.[/									$ \rightarrow$				_ _						┥┥	
															_		· -	-+							_	_		┥╾┥	
L								_							ŀ						-			┥╾┼	_			┥	[
												_											_	┼╌┼	_			┯	
		\bot		·				:	•	·											_ _			╉╼╉				╄-,	
				<u></u>		_	_	_			·			_				-						┥╌┼				┼─┼	
			\square	·				_				_					_	_ -								_		┼─┼	
		\perp				_		_		-				_						_ -	_ _	-		┦╼┼				┼─┼	
Re	ingulahed								Received by: (Sloppure)		Rainquished by: (Signaar	•)			·	PC	Receiv	ed by: (Signal				<u> </u> ⁰	HECK HER	E FOR	DRIN			1
i .	1 cm	4	lla	~~	<u>}</u>		4:5) 		Received by (Shanno)	JON	Reinquished by: (Signature	c)	•	D	ste / Tim	r Ne	Receiv	ed by: (:	Signak	re)				RHAROU NO	ND TIM	E REC	KIRED:		
	entent	a T	tap	rature	ice	,			Comments en Sample Conditions	•														TE REQU	RED:				

Fratur

PCA04-1551

19

	Company Na Branch or Loo Project Conta Telephone: Project Numb Project Name Project Locati Sampled By (cation: Duluth, MN act: Earl Fushbaugh (218) 723-6013 mer. C.O.D. Lester Park (Co+ 13 (Green 1-469-24 FAX	Bellevue S Bay, WI 5 36 • 1-800 414-469-8 CHA	i4302 D-736-2 i827	Superior, WI 54880		Page of man and a second secon
and the second	1 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rogram (circle): UST RCRA CLF		WA	NR	720 Con	firmation	Analys	is Required?		Quete No. 2389
	States and the state	DES CAA NR Other		ection	Sec. Wardson	1. Same	2	11. C. M	s otherwise instructed.) Analysis	SHADED AREA FOR	ABORATORY USE ONLY
	Gidio	Sample Description			Field Screen	Matrix	Y/N	Preserv		Good KTotal Comn	Laboratory
		/nu-1	8/20/	7:55 Pm		Ho		B	DRO/GRO/BTEX/MTBE	1/3-40-20	502553
1000		mw-l		4:00		1	· ·	7	11 20 AL 11		D2554
1.20		M-3		4:10	- - -	{		$\left(- \right)$	lt to by by	77	502555
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				4:15		\square		+	n n h h		STATUS AND STATUS
a jerenaj.		mu-1		pm 3:45							502556
		Mw-S	(Pm 3:45		/					\$ <i>02554</i>
÷.,,		MW-S. Duplicate	レ	p~		V		\checkmark	BTEX /MTBE	1 3 Ao-l	502558
									4		
		Trip Black	8/2·hu			Ho		B	GRO/BTEX/MTBE	1 3-10-L	502561
				·							
				<u> </u>			· ·		*		
			· •								
				, ,	1. 1			4			
				<u> </u>	,		-	Det- 7	me: A Received By:		En Cham Project No
	A-None	B=HCL	nquished	^{by:}	1	2		Date/Ti	F/51/41 4:00 pm	a. camero "	Encham Project No.
	D=HN03 G=NaOH	E=EnCore F=Methanol* O=Other (Indicate)	nquigtied	By:	1		•	Date/Ti	ne: Received/By:		Sample Receipt Temp. (Must be rec'd at 4°C)
	Cate volume	g En Chem's methanol, Indi-	nquished	By:	<u>.</u>	<u> </u>		Date/Ti		En Chem):	0.9°C

... chemistry for the environment



Superior Laboratory
2231 Catlin Ave., Suite 420
Superior, WI 54880
1-800-837-8238Lab Certification No. 816079330
Location : C.O.D. LESTER PK GOLF COURSE
En Chem Proj# : 0896057
Date Reported : 08/30/1996Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample Nos. 502553, 502555, & 502557: Later eluting peaks outside DRO window.

Sample No. 502554: Complex chromatogram for BTEX analysis indicating the presence of fuel. Chromatogram has a typical gasoline pattern. Some peaks were outside of GRO window. Surrogate Standard (SS) is high due to co-elution. Front peaks outside of DRO window, indicating lighter fuels are present. Later eluting peaks outside DRO window.

Sample No. 502556: BTEX chromatogram has many low level late eluting peaks that are not above detection limit. Later eluting peaks outside DRO window.

PCA04-1553



Superior, WI 54880

Fax: 715-392-5843

715-392-5844

1-800-837-8238

2231 Catlin Ave., Suite 420

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PK GOLF COURSE Your Sample ID: Sample Desc. : MW-1 Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502553 Date Reported : 08/30/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analy By
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	08/29/1996	SW846 8020	08/29/1996	5 md
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		08/29/1996	WONR MOD GRO	08/29/1996	5 mdc
	Blank spike	98	% RECOV	50					
	Blank spike duplicate	97	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		08/23/1996	WDNR MOD DRO	08/23/1990	5 DLP_
	Blank spike	78	% RECOV	50					
	Blank spike duplicate	84	% RECOV	50					
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	08/29/1996	SW846 8020	08/29/1990	5 mc
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	102	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity, verified by:

PCA04-1554

Corporate Office & Laboratory



Superior, WI 54880

715-392-5844

1-800-837-8238 Fax: 715-392-5843

2231 Catlin Ave., Suite 420

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PK GOLF COURSE Your Sample ID: Sample Desc. : MW-2 Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502554 Date Reported : 09/04/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
BE-W	Methyl-tert-butyl Ether	ND	ug/l	4.0	sw846 5030	08/30/1996	SW846 8020	08/30/199	6 mdc
<u>GR</u> O	Gasoline Range Organics(GRO)-Water	5200	ug/l	200		08/30/1996	WDNR MOD GRO	08/30/199	6 mdc
	Blank spike	98	% RECOV	50					
	Blank spike duplicate	97	% RECOV	50					
	Diesel Range Organics(DRO)-Water	700	ug/l	100		08/23/1996	WDNR MOD DRO	08/23/199	6 DLP
	Blank spike	78	% RECOV	50					
	Blank spike duplicate	84	% RECOV	50					
EX-W	Benzene	270	ug/l	2.4	SW846 5030	08/30/1996	SW846 8020	08/30/199	6 mdc
	Ethyl Benzene	190	ug/l	4.0					
	Toluene	36	ug/l	4.0					
	Xylenes, m + p	330	ug/l	4.0					
	Xylene, o	41	ug/l	4.0					
:	a,a,a-Trifluorotoluene (SS)	126	% recov	1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

.

These results have been reviewed and their authenticity verified by:



Superior, WI 54880

Fax: 715-392-5843

715-392-5844 1-800-837-8238

2231 Catlin Ave., Suite 420

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PK GOLF COURSE Your Sample ID: Sample Desc. : MW-3 Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502555 Date Reported : 08/30/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analy a d By
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	08/29/1996	SW846 8020	08/29/199	6 md
GRO	Gasoline Range Organics(GRO)-Water Blank spike Blank spike duplicate		ug/l % RECOV % RECOV			08/29/1996	WDNR MOD GRO	08/29/199	6 mdc
DRO	Diesel Range Organics(DRO)-Water Blank spike Blank spike duplicate		ug/i % RECOV % RECOV			08/23/1996	WONR MOD DRO	08/24/199	6 DL
BTEX-W	Benzene Ethyl Benzene Toluene Xylenes, m + p Xylene, o a,a,a-Trifluorotoluene (SS)	ND ND ND ND 101	ug/l ug/l ug/l ug/l ug/l % recov	1.0 1.0 1.0 1.0	SW846 5030	08/29/1996	SW846 8020	08/29/199	6 md

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

PCA04-1556

Corporate Office & Laboratory 1795 Industrial Drive • Green Bay, WI 54302 • 414-469-24<u>36 • 800-736-2436 • Fax: 414-469-8827</u>



Superior Laboratory 2231 Catlin Ave., Suite 420 Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

. . . chemistry for the environment

Lab Certification No. 405132750 : C.O.D. LESTER PK GOLF COURSE Location Your Sample ID: Sample Desc. : MW-4 Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502556 Date Reported : 08/30/1996

Bill to: REMEDIATION SERVICES INC

Amalysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
NE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	08/29/1996	SW846 8020	08/29/199	6 mdic
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		08/29/1996	WDNR MOD GRO	08/29/199	6 mdc
	Blank spike	98	% RECOV	50					
	Blank spike duplicate	97	% RECOV	50					
DRO	Diesel Range Organics(DRO)-Water	ND	ug/l	100		08/23/1996	WONR MOD DRO	08/24/199	6 DLP
	Blank spike	78	% RECOV	50					
	Blank spike duplicate	84	% RECOV	50					
EX-W	Benzene	ND	ug/l	0.6	SW846 5030	08/29/1996	SW846 8020	08/29/199	6 mdc
	Ethyl Benzene	ND	ug/l	1.0					
-	Toluene	ND	ug/l	1.0					
-	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	102	% recov	/ 1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

Corporate Office & Laboratory

1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827



Superior Laboratory 2231 Catlin Ave., Suite 420 Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806 ... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PK GOLF COURSE Your Sample ID: Sample Desc. : MW-5 Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502557 Date Reported : 08/30/1996

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analy ga d By
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	S₩846 5030	08/29/1996	SW846 8020	08/29/1996	md
GRO	Gasoline Range Organics(GRO)-Water Blank spike	ND 98	ug/l % RECOV	50 50		08/29/1996	WONR MOD GRO	08/29/1996	mdc
	Blank spike duplicate		% RECOV						
DRO	Diesel Range Organics(DRO)-Water Blank spike Blank spike duplicate		ug/l % RECOV % RECOV			08/23/1996	WONR MOD DRO	08/24/1996	DL
BTEX-W	Benzene Ethyl Benzene Toluene Xylenes, m + p Xylene, o a,a,a-Trifluorotoluene (SS)	ND ND ND ND 101	ug/l ug/l ug/l ug/l ug/l % recov	0.6 1.0 1.0 1.0 1.0	SW846 5030	08/29/1996	SW846 8020	08/29/1996	mc

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

PCA04-1558

Corporate Office & Laboratory 1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827



Superior, WI 54880 715-392-5844

Fax: 715-392-5843

1-800-837-8238

BT

2231 Catlin Ave., Suite 420

... chemistry for the environment

Lab Certification No. 405132750 Location : C.O.D. LESTER PK GOLF COURSE Your Sample ID: Sample Desc. : MW-5 DUPLICATE Sample Matrix : WATER Date Collected: 08/20/1996 En Chem Proj# : 0896057 Date Received : 08/21/1996 En Chem Lab # : 502558 Date Reported : 08/30/1996

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806

Bill to: REMEDIATION SERVICES INC

alysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
BE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	SW846 5030	08/29/1996	SW846 8020	08/29/1996	ó mele
EX-W	Benzene	ND	ug/l	0.6	SW846 5030	08/29/1996	SW846 8020	08/29/1996	mdc
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
j	Xylenes, m + p	ND	ug/l	1.0					
	Xylene, o	ND	ug/l	1.0					
ł	a,a,a-Trifluorotoluene (SS)	101	% recov	/ 1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

PCA04-1559

Corporate Office & Laboratory

1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827



Superior Laboratory 2231 Catlin Ave., Suite 420 Superior, WI 54880 715-392-5844 1-800-837-8238 Fax: 715-392-5843

Report to: REMEDIATION SERVICES INC SUITE 100 102 SOUTH 29TH AVENUE WEST DULUTH, MN 55806 ... chemistry for the environment

Lab Certification No. 405132	750													
Location : C.O.D. LESTER	PK GOLF COURSE													
Your Sample ID:														
Sample Desc. : TRIP BLANK														
Sample Matrix : WATER	Date Collected: 08/20/1996													
En Chem Proj# : 0896057 [Date Received : 08/21/1996													
En Chem Lab # : 502561 1	Date Reported : 08/30/1996													

Bill to: REMEDIATION SERVICES INC

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analy By
MTBE-W	Methyl-tert-butyl Ether	ND	ug/l	1.0	S₩846 5030	08/29/1996	SW846 8020	08/29/1996	md
GRO	Gasoline Range Organics(GRO)-Water	ND	ug/l	50		08/29/1996	WDNR MOD GRO	08/29/1996	mdc
	Blank spike	98	% RECOV	50					
	Blank spike duplicate	97	% RECOV	50					
BTEX-W	Benzene	ND	ug/l	0.6	SW846 5030	08/29/1996	SW846 8020	08/29/1996	mdc
	Ethyl Benzene	ND	ug/l	1.0					
	Toluene	ND	ug/l	1.0					
	Xylenes, m + p	ND	ug/l	1.0					-
	Xylene, o	ND	ug/l	1.0					
	a,a,a-Trifluorotoluene (SS)	101	% recov	່ 1					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

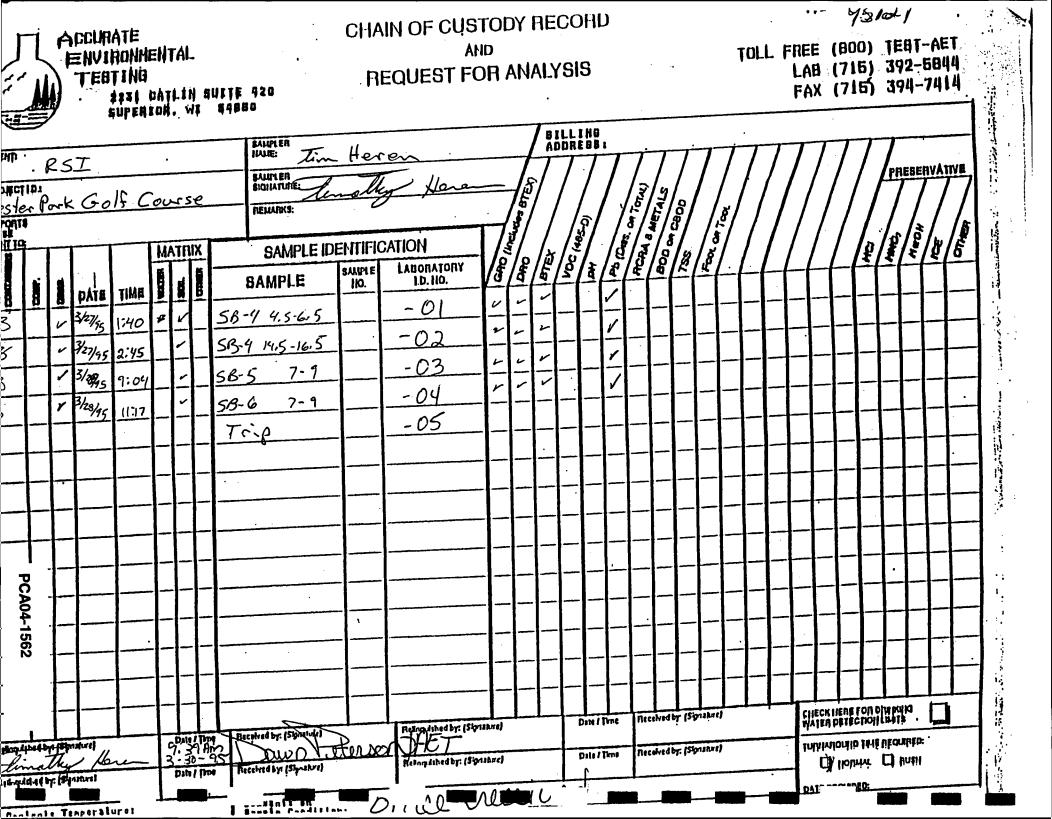
These results have been reviewed and their authenticity verified by:

PCA04-1560

Corporate Office & Laboratory

1795 Industrial Drive • Green Bay, WI 54302 • 414-469-2436 • 800-736-2436 • Fax: 414-469-8827

r	i	۵	CCUR	ATE	• .				CH/	AIN OF CUS	STO	DY	NE	ECC)						•				2.1				•
	L		= 11/1	INNH	eht	ral.	•			A	HD	A		vel	C						TO	I.L	FRE	E	(B)	00)		E81 92-	-A -58	ET - .44
(1	ÍN		TEA	TING 4xx1	DAT	Lİİ		UITE 420		EQUEST F	OH	AN	A1.	וכז	3								LI Fi	ar Ax	(7		, 3	94-	-74	14
17.8		7	•	SUPER	tok.	Ŵ	it i	44880 44880																						<u> </u>
1 auto				<u></u>				SALIPLER HALE:	- 1-1	lere			/ B A	ILL) DDR(1 H D 1 B B 1						·		-7	-7	7	7	7			
CLIENTD (25	I							m I	F.11			7	7	1	/ /	/		/ /	' /					/	/	Le	RESE	HVA	ŢĮV#
LUOMC		2	PG	\leq				REMARKS:	alle	y Nere-		75	7	/ /	/ /	/	<u>₹</u>	<u>9</u> /5	·/		/ /		/ /		·	' /	1		' /	′ /
PEPONT TO BE SENT TO	4 E									OATION	Τ/	۲. ۲.	' /	Poc.	<u>}</u>		 	5 1000 VOR	/	<u>8</u> 8	[]	/	/	/	1			./ð	:/	
(sent to					MA		X	SAMPLE II	SAUPLE	LABONATORY	10		1	8	1.		₹/	8	8/3	ř/.	/				L	<u></u>			18	10
	ļ		₽ÅT#	TIME		8	B	8AMPLE	110.	1.D. 110.		1	4			f				Γ										
7	Ē		_	11:10	1			MW-1		-01		-		-		7	- -	- -	-	-										
7		-		11:40	V	•		MW-Z		-02				-/		7-	- -	- -	-	1-		•								61
17		-	4/26/95	10.10	[]	_		MW-3	-	-03		-		-	-	- -	- -	- -	- -											4-15
.5			4/26/95	11:45		_		MW-2 Dup		-04				— H	 0	20	- -	- -	-				_							PCA04-1561
1		Γ	4		2			Trip		-05	-				<u> </u>	- -	- -	- -	- -	Γ							'			
3	Γ		9/26/95	9:30	4	_		Field		-de	-				-	- -	-[-	- -												·
	Γ								-		-				-	- -	- -	- -												
Į		Γ				_									-	- -	- -	- -	- -	1							_			
	Γ	Γ				_			-		-		-		-	- -	- -	- -	- -								 	·		
	1										-		-			- -											Ŀ			
	Γ			1			_				-	-	-			-[-									<u> </u>		 	-		
				<u> </u>						-	-					-		-[-							<u> </u> _	.	 	-	 	
				<u> </u>							-			-		- -	-[-						_		.			. 	 	.
						_				•	- -					-[L	I	L	L			L		<u> </u>
			<u> </u>			Dale	104	Flacpived by: [Signalure]	_ _	Heingrished by: 15k	(a H.d & C			P	n / Tu			odby (No. of Concession, name	_				<u></u>	
In the	ton	hy	Mar	<u></u>	41	261	10	Dewalt of	eisen	Reinquished by: (Si	pastere)				ele / Tim		lecolv	edby: [Signati	re)			UI IN	DUNIN DUNIN	oulio Ilour	141E [C) li Vitori	intit Sette		
Find	14-141	f 15	asturel .			μm,	/ (1)m4	rec	eived							-						•	2	TE UÈ						
Q.r	•	T	1.0	r+1					-4																		l		•	



METHODOLOGIES AND PROCEDURES

During the subsurface investigation a drill rig utilizing hollow stem auger drilling techniques, or a Geoprobe utilizing direct push technology, were used to investigate the extent of soil and groundwater contamination at the site.

Soil Borings and Sampling

Soil samples were collected continuously. Soil sampling performed with the drill rig was conducted in accordance with ASTM Method D1586, "Penetration Tests and Split Spoon Sampling for Soils." A qualified, on-site, environmental geologist classified each sample. Upon the completion of soil sampling, each soil boring was abandoned according to Minnesota Department of Health well code. Samples obtained with the Geoprobe were collected with a 4-foot long sampler equipped with a dedicated polyethylene liner.

Headspace analyses were conducted on the soil samples with a photoionization detector (PID) (PhotoVac MicroTIP-1000) equipped with a 10.6 eV lamp. The PID was calibrated with a 100-ppm isobutylene standard and ambient air (zero ppm). Representative portions of each sample were placed in a ziplock plastic bag. When possible, the bags were filled to one-half capacity before sealing. The time of sampling was recorded on the bag that was then placed inside a heated vehicle. The samples were allowed to warm for a minimum of 10 minutes before the PID probe was used to perforate the plastic bags. The highest PID reading was recorded for each sample collected.

Ground water samples obtained with the Geoprobe were collected through the Geoprobe rods using polyethylene tubing and a vacuum pump, or from temporary PVC wells with dedicated, disposable, polyethylene bailers. Ground water samples obtained from monitoring wells were collected with dedicated disposable bailers after 3 to 5 well volumes were purged from the wells.

Soil and groundwater samples were placed in the proper sample containers and placed in a cooler with ice to maintain a 4°C temperature.

Monitoring wells were installed in accordance with Minnesota Department of Health well code. The wells were developed and sampled in accordance with MPCA guidelines using disposable bailers.

Decontamination

The drilling equipment and all tools were decontaminated between samples and borings with warm Alconox water and triple rinsed with hot tap water to prevent cross-contamination. Dedicated, disposable sampling equipment was used where possible.

Quality Assurance/Quality Control

Sample bottles were carefully labeled with the name of the sampler, date, time, preservative and analytical parameter as required. This information was recorded on a chain-of-custody form. Samples were placed in an ice-packed cooler and delivered to an independent, Minnesota-certified analytical laboratory.

Samples were transported by common carrier to the laboratory with the appropriate chain-of-custody documents. These documents and analyses are included in Appendix B.

LOG OF BORING

.

			DULUTH	····		SITE:	<u>.</u>		ER	PARK	golf (OURS	E		
' <u>WN</u>	ER:		DULUTH			BORIN	G #:	SB-1		μ .					
DEPTH, FEET	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)	DE	SCRIPTION OF 1	MATERIAL		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	S	TANDA (B	RD PE LOWS/		ATION	ł
	ž	CH	SURFACE	ELEVATION: 97	<u>.60</u>		TE	0	M/	1	0 2	20 3	0 4	05	50
		6	SAND ANI BROWN, (I SILT, SANI	O GRAVEL W/ Cl FC), FILL, WATE D, AND GRAVEI EDDED, WET To	LAY LENSI ER BEARIN	G 6.5' H -						20 3	0 4	0 5	
22	-														
VAT V.L. W.L.	V.L.			R	SI		BORIN BORIN RIG:		MPL	ETED	12/7/94 12/7/94 DRILL	ļ	SB		PCA04-1566
<u>V.L.</u>	The St	atification	Lince D	ENVIRONMENTA sent Approximate			DRAW	N:	TM	Н	APPRO	VED:	EFF		CAO

LOG OF BORING

	ECT:		F DULUTH			TE:	_	LEST	ER	PARK	GOLF	cou	RSE			
OWNER: CITY OF DU			F DULUTH		B0	ORIN	<u>G #:</u>	SB-2								
DEPTH, FEET	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)	DE	SCRIPTION OF MATE	ERIAL		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	S	TAND. (I		PENE VS/FO		TION	
Ā	Ĭ	E E	SURFACE	ELEVATION: 96.26			e		W/	1	0	20	30	40	5	D
			SAND AND	O GRAVEL, GRAY, FI	LL			1				<u> </u>	Ť	Î		
<u>1</u> 2	-	1		Y, REDDISH BROWN , CRUMBLY, DRY	I AND G	RAY										
3																
5																
7			JOINTED V	VITH SILT IN THE JO	INTS		0.8									
<u>8</u> <u>9</u>				•												
10 11		11					4.1		▽							
<u>12</u> 13			SAND, BRO	OWN, (FC), WATER B	BEARING	Ĵ										
14																
15 16]	15		DISH BROWN, MOIST												
17			END OF BO	DRING 16'												
<u>18</u> <u>19</u>	-															
20 21																
22																
	ER LEVE		RVATIONS		-		BORIN		· · · · ·		12/7/9			,.I		67
W.L.		11'		RSI	ſ					ETED						-15
W.L.							RIG:	GEOI			DRILI		SE			PCA04-1567
T.L.	The Str	atification	Lines Renre	ENVIRONMENTAL CON sent Approximate Boun			DRAW		TM		APPR		D: EF	1 		Q
				San Approximate Boun	uaries De	i ween i	son ry	pes; II	າ-ວາກນ	, ine l	ransitic	JII IVI	ау ве (Jradu	81	٩

LOG OF BORING

			LOG O	F BORI	NG								
PROJECT:	ECT: CITY OF DULUTH					: LESTER PARK GOLF COURSE							
OWNER:	CITY O	F DULUTH		BORIN	G #:_	SB-3							
DEPTH, FEET SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)	DE	SCRIPTION OF MATERIA	L	TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	STANDARD PENETRATION (BLOWS/FOOT)					
a ž	CH	SURFACE I	ELEVATION: 97.04		TE		M	1	0 2	20	30	40	50
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.5 2 6 10	ASPHALT SAND AND SILTY CLA MOTTLED SAND, SIL TO REDDIS WATER BE	GRAVEL, GRAY Y, REDDISH BROWN AN T, CLAY, AND GRAVEL, SH BROWN, BEDDED, FIL	BROWN .L, AND,	2.4		<u>₽</u>	1	0 2	20	30	40	50
14 15	14	1	DY CLAY AND GRAVEL, BROWN, MOIST							-			
16		END OF BO	RING 16'			-		 					+
17 18													
19													
20													
21 22												568	
WATER LEV W.L. W.L.	EL OBSE 7'	I RVATIONS	RSI		BORI	BORING STARTED: 12/7/94 BORING COMPLETED 12/7/94 RIG: GEOPROBE DRILLER: SB					PCA04-1568		
W.L.		n Linca Donus	ENVIRONMENTAL CONSULT sent Approximate Boundarie	DRAV	WN:	TM	H	APPRO	ROVED: EFF				

The Stratification Lines Represent Approximate Boundaries Between Soil Types; In-Situ, The Transition May Be Gradual

						١G						 -	<u> </u>	
I ROJ			DULUTH		SITE:					GOLF (COUR	SE		
<u>NVN</u>	ER:	CITY OF	DULUTH	<u></u>	BORIN	G #:	SB-4	(MV)	/-1)					
DETTI, FE	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)		CRIPTION OF MATERIAI		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL		(B	LOWS	ENETRA S/FOOT) 30 4		
			1" ASPHA				Γ							
— 1			SILT, REDD	ISH BROWN, MOIST										
2	{			ъ.							1			
	1						19			ବ				
3	ł					48	2			'	V			
4	-										N			
<u> </u>	1						1							
5]													1
6	1	6				760	22 2				٩			i
	1	Ĭ		Y CLAY AND GRAVEL,	<u> </u>	1						X		
7	4	1		ED W/ SILT, REDDISH B	ROWN,		34	 '						
8	-		S/ SAND SE.	SW2		10.3	36 2	1						
	1	1						▽	1					
9	4													
10	-							ł						
	1					6.5					1			
11	4													
12	-													
	1		SILT, BROW	N, WET TO WATER BEA	RING									
<u>13</u>	4					7.7								
, 14	-													
]					6.3								
15	4		W/ GRAVEI	•										
16	-													1
<u>17</u>	4													
18	-											_		
	-		END OF BO										1	
<u>19</u>	+		WELL SET	IN BOKING										
20	1												1	1
21	-									1				I
21	-													
22	1													
I/ A T			 RVATIONS			BUDI	I NG ST	יסע ^י	<u> </u> דDי	3/27/9	<u> </u> 95	<u> </u>	<u> </u>	
WAI W.L.		HILE DR		RSI					LETED					Č L
W.L.					RIG: GEOPROBE DRILLER: SB									
7.L.	.	ratificatio		ENVIRONMENTAL CONSULT	ANTS	DRA		TM				: EFF		2

PROJ	ECT:	CITY OF	DULUTH		SITE:		LEST	ER	PARK GO		DURS			
OWN	ER:		DULUTH		BORIN	G #:	SB-5	(MV	/-2)					
DEPTH, FEET	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)	DES	SCRIPTION OF MATERIA	L	TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	STA	NDAR (BL)	ed pen ows/f		TION	
Ā	N			ELEVATION: 95.96		TE		M	10	20) 3(0 4	0 50	0
1			INTERBEDI	BROWN SILTY CLAY, DED W/ BROWN BEDDE SAND LENSES	D SILTS,		19			8				
3						4.9	2							
5 6 7						5.5	24							
8		9.5				3.7	<u>19</u> 2	▽		ø				
10 11 12		,		OARSE BEDDED SANDS DED W/ SILTS AND CLA	YS,	4	23				8			
12 13 14	-													
15														
16			END OF BO WELL SET	DRING 15' IN BORING										
17 18														
19														
20 21	-													
22													PCA04-1570	
WAT W.L.	<u>ER LEVI</u>	EL OBSE 9'	RVATIONS	חפו			NG ST		ED: 3 LETED 3	/29/95		<u> </u>	A04	_
W.L.							SIM	CO	Γ	ORILLE		SB	Č Č	
W.L.	The Str	atification	n Lines Repre	ENVIRONMENTAL CONSUL sent Approximate Boundari		DRAV Soil Ty		TM n-Sit		APPRO ansition			iual	

							<u> </u>				·					
	ECT:	CITY O	F DULUTH			SITE:		LEST	ER	PARK	GOLF	COUR	SE			
OWN	ER:	CITY O	F DULUTH			BORIN	G #:	SB-6			(MW-3)				
Der 1.1., FEET	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)		SCRIPTION OF MATE	RIAL		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	s	STANDARD PENETRATI (BLOWS/FOOT)				ON	<u></u>
	z	5		ELEVATION: 96.34			F	Ŭ	M	1	0 2	20	30	40	50	
1				L IDY CLAY, REDDISH Y, BEDDING	BROW	'n										
3						-	5.6	19 2			ଷ					
45			W/ SAND I	LENSES			- .	24				8				
6							5.4	2				ι.				
8							5		V							
10		10	SILTY FIN	E TO COARSE SAND A	AND G	RAVEL) }									
11 12			WATER BE CLAY	CARING, INTERBEDDI	ED W/		5.6									
13 14			BROWN SI	LTY CLAY												
15			END OF BO WELL SET	DRING 14' IN BORING												
16 17																
18 19																
20 21																
22																
	ER LEVE		RVATIONS				BORIN				3/28/95				_ ;	
W.L.		8.5'		RSI						ETED	3/28/95			· · · · ·	_ i	PCA04-1571
W.L. W.L.				ENVIRONMENTAL CONS		TTO	RIG: DRAW		XO TMI	u r	DRILL		SB		- 2	5
V	The Str	atification	Lines Repre	sent Approximate Bound							APPRO				- 8	S
				ware reperorunate bound	- CO I I CO I	~~~~	<u>you 1</u>	рсэ , Ш	-0110	, me i	1 01151110	u iviay	De UI	auual	Č	r

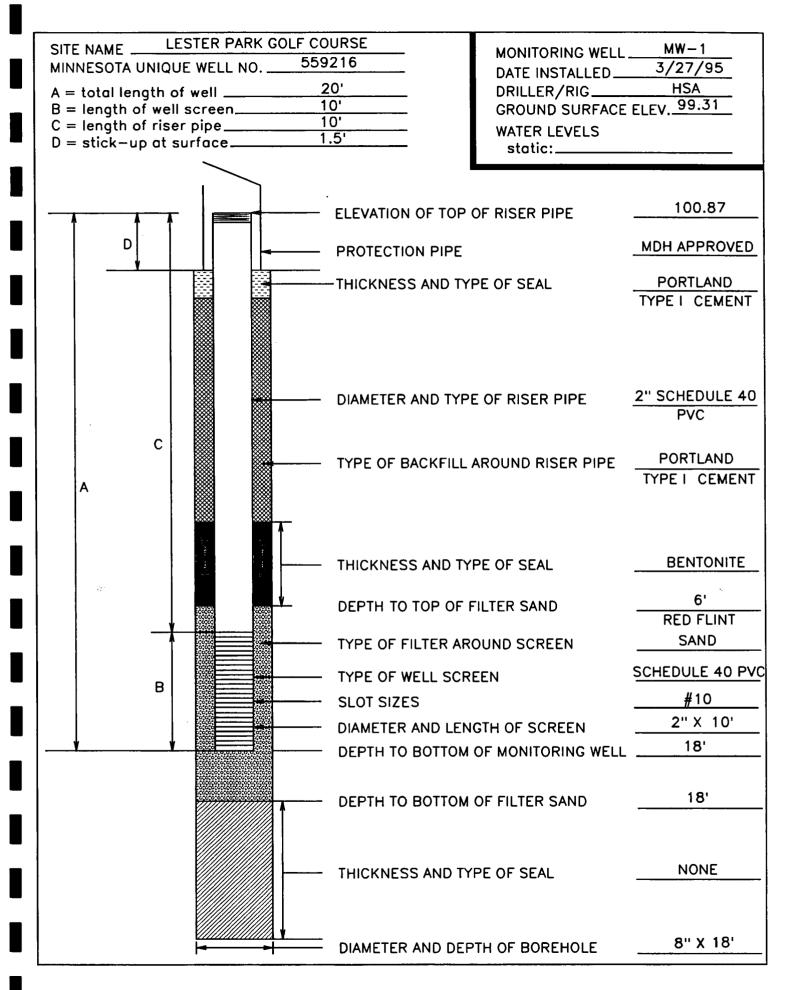
			·			BORI									
PROJEC						SITE:				MINN		٩			
OWNER	R:		DULUTH			BORIN	G #:	SB-7	r	(MW-4	9				
DEPTH, FEET SAMPLE	NUMBER AND TYPE	STRATA CHANGE (FEET)	DE	SCRIPTION OF MAT	FERIAL		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	STANDARD PENETRA (BLOWS/FOOT)					
	ž	CH	SURFACE	ELEVATION: 100.88	B		E	E	W/	1	0	20 3	30 4	0 5	0 🗕
1	1-SS		DARK BRO HIGH PLA	WN SILTY CLAY, (6 STICITY	CL), M	DIST,	15.4								
3	2-SS	2.5	REDDISH- PLASTICII	BROWN CLAY, (CL) Y	, MODI	ERATE	1.8	7		ଞ୍					
	3-SS	_	SLIGHT PL	ASTICITY			1.6	13			8				
7 8 9	4-SS	7	REDDISH-I SILT, (ML)	BROWN MOTTLED (CLAYE	Y	2.2	40							
10	5-SS	10	REDDISH- MOIST	BROWN SILTY FINE	SAND	, (SM),	2.8	27	ᢦ			ø		*	
12	6-SS						2.5	34							
14 15		14		BROWN MOTTLED (E PLASTICITY	CLAY,	(CL),							8		
<u>16</u> <u>17</u>	7-SS	16.5		BROWN SILTY FINE	SAND	, (SM)	2.2								
<u>18</u> 			END OF BO	ORING 17'											
20										i					
22														PCA04-1572	
	LEVE		VATIONS		~		BORIN	The second second second second second second second second second second second second second second second se			4/29/9		•	4	
W.L.		-10'		RS	ſ		BORING COMPLETED 4/29/96)AC			
W.L. W.L.				ENVIRONMENTAL CO	-		RIG: DRAW		O BJN			LER: OVED:	PK BJN	Я	
	The Stra	tification	Lines Repre	sent Approximate Bou							ransitio	on May 1	Be Grad	lual	

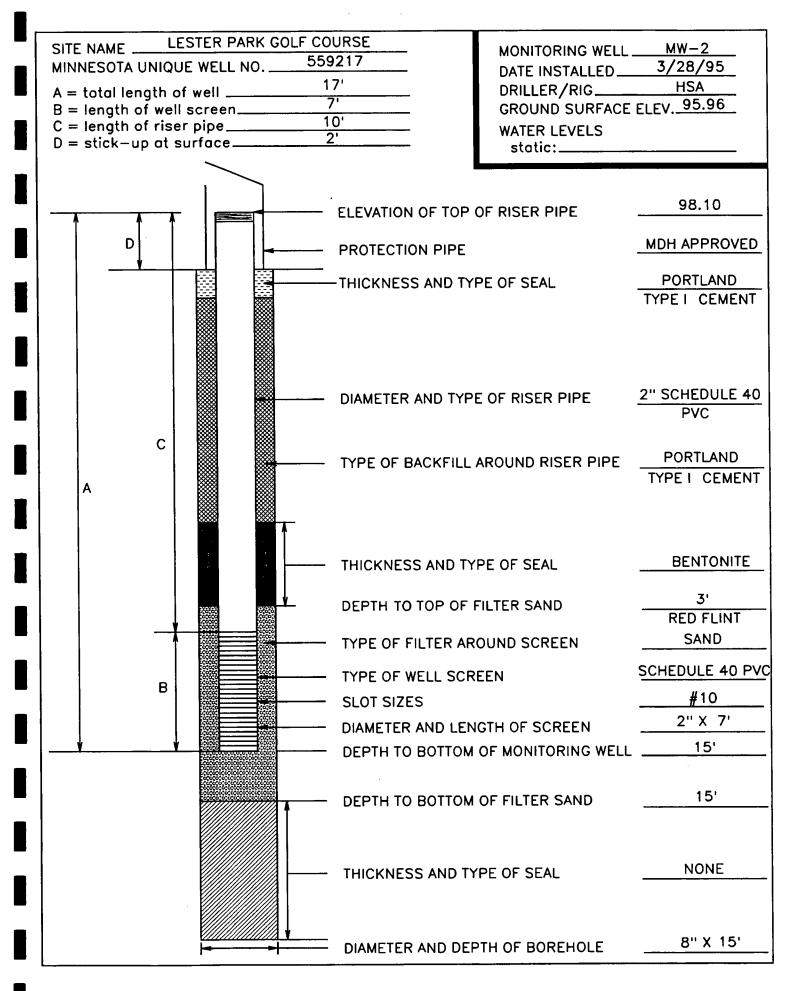
ROJECT: LESTER PARK GOLF COURSE SITE: **DULUTH, MINNESOTA OWNER: BORING #: CITY OF DULUTH** SB-8 (MW-5) TEST RESULTS (PID) STRATA CHANGE (FEET) NUMBER AND WATER LEVEL DEPTH, FEET N-VALUE (BLOWS/FT) SAMPLE TYPE STANDARD PENETRATION DESCRIPTION OF MATERIAL (BLOWS/FOOT) SURFACE ELEVATION: 94.25 10 20 30 40 50 DARK BROWN SILTY CLAYEY TOPSOIL. 1 (OH), ORGANICS 3.5 2 2 **REDDISH-BROWN MOTTLED CLAYEY** 3 SILT, (ML) 2.7 4 8 4 4 REDDISH-BROWN MOTTLED SILTY CLAY. 5 (CL), MOIST 2.2 ∇ 5 ¢ 6 WET 7 7 REDDISH-BROWN SILT W/ FINE SAND, (ML) 8 2.1 24 8 9 10 11 2.1 8 34 11.5 12 MEDIUM TO COARSE SAND W/ GRAVEL, SILTY, (GM) 13 END OF BORING 13' 14 15 16 17 18 19 20 21 22 WATER LEVEL OBSERVATIONS BORING STARTED: 4/29/96 W.L. ~6.0' RSI BORING COMPLETED 4/29/96 W.L. DRILLER: RIG: SIMCO PK W.L. ENVIRONMENTAL CONSULTANTS DRAWN: BJN APPROVED: BJN The Stratification Lines Represent Approximate Boundaries Between Soil Types; In-Situ, The Transition May Be Gradual

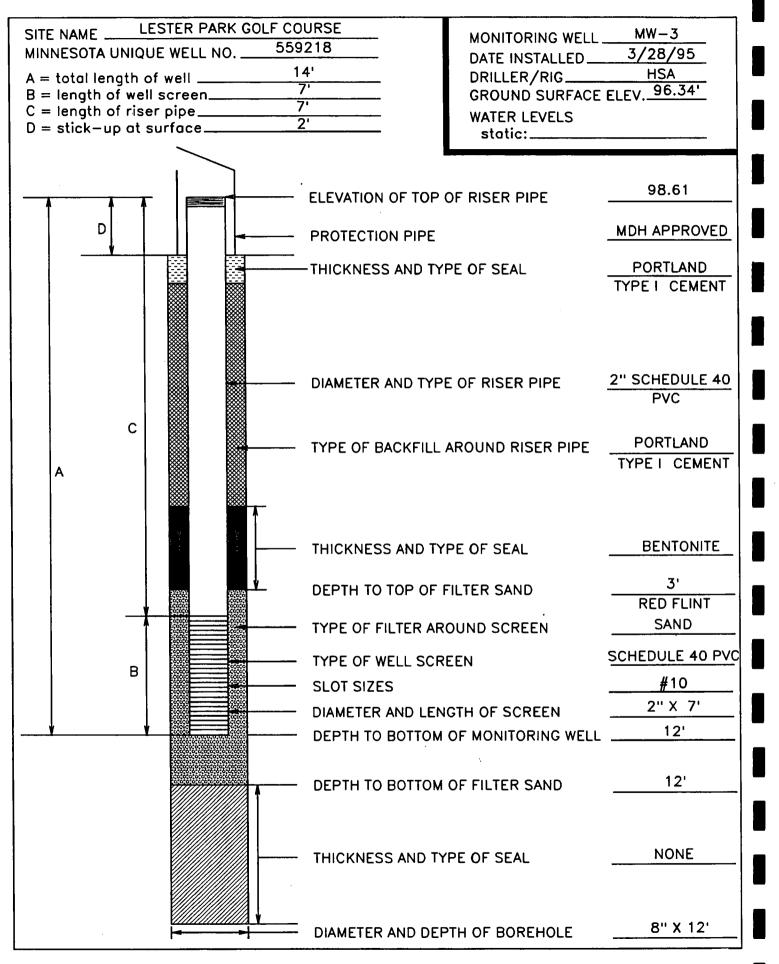
LOG OF BORING

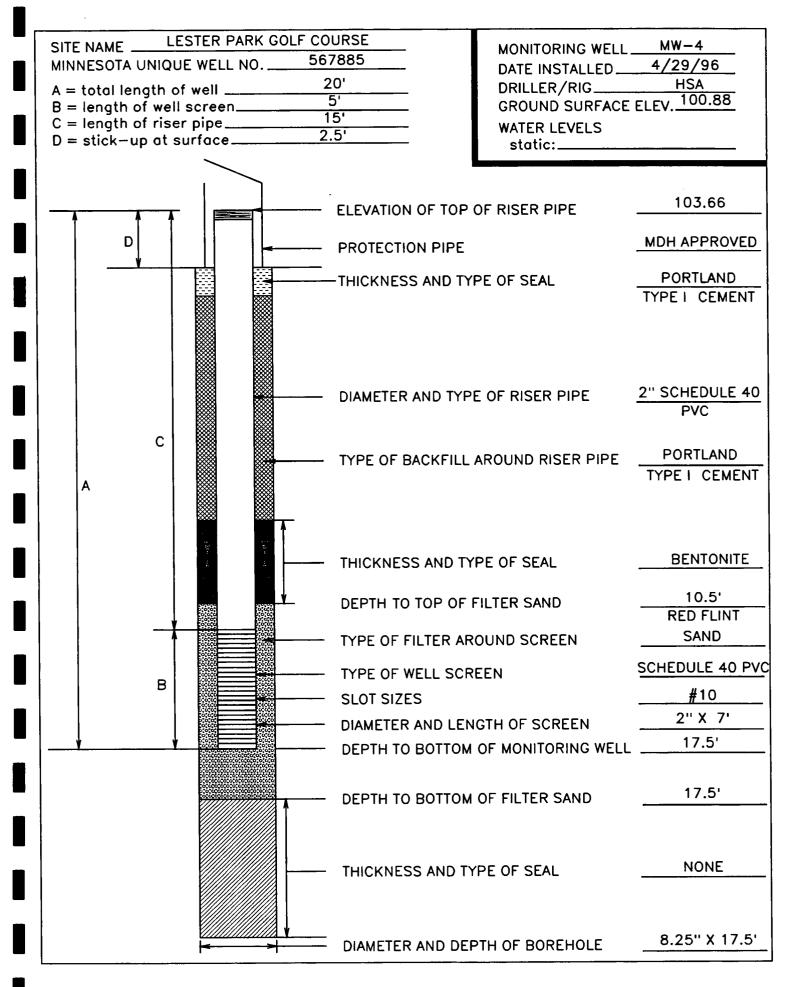
.

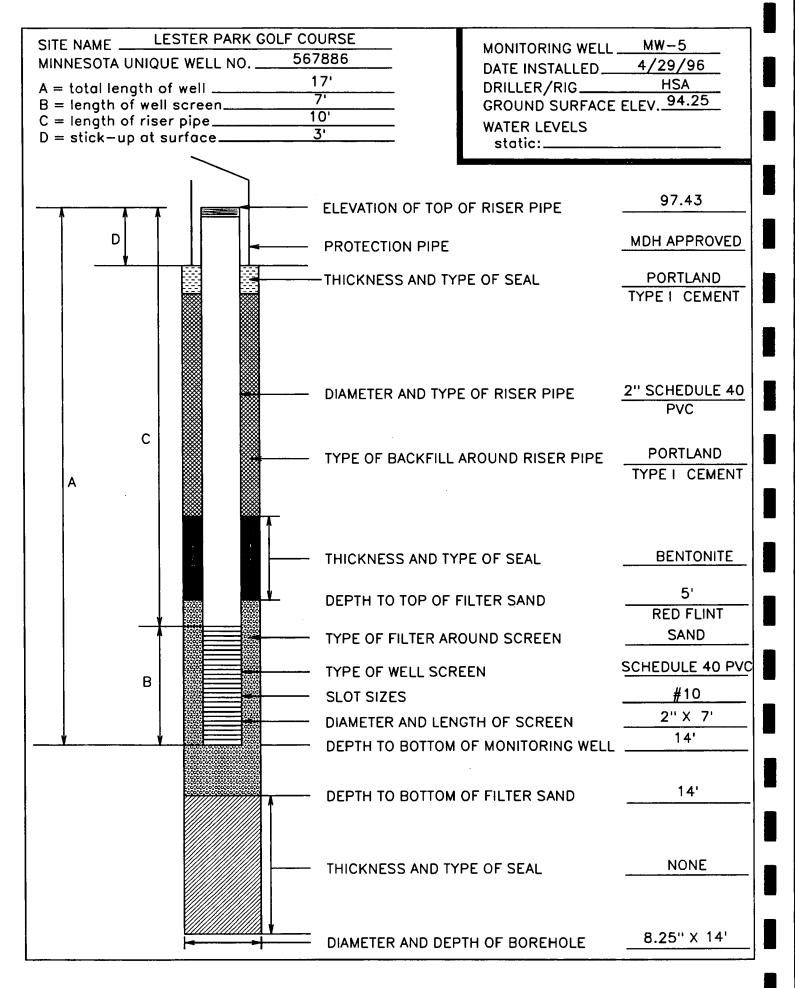
PROI	ECT: L	ester Pa	rk Golf Cor	SITE: I	ester	 Park (Golf	Cour	se		<u></u>				
	ER: City				BORIN										
DEPTH, FEET	SAMPLE NUMBER AND TYPE	STRATA CHANGE (FEET)		SCRIPTION OF MATERIAI		TEST RESULTS (PID)	N-VALUE (BLOWS/FT)	WATER LEVEL	S			PENE WS/FO		TION	
	JZ Z	CH	SURFACE E	ELEVATION:		TE	0	W/	1	0	20	30	40	5	0
1		1	Brown fine	to medium silty SAND.		0									
2		2	Brown claye	ey SILT with organics and gr	avel.	0									
3			Red/brown s	ilty CLAY, moist.		1.2									
4	-		Light brown	n mottling.		1.2									
5						0									
6						0									
7						0									
8			Wet.			0		∇							
9						0									
10	-					0									
11						0					l				
12	-					0									
13			No mottling	<i>z</i> .		2.6									
14						2.6									
			End of bori	ng at 14 feet.											
				-											
				ter sample collected.											
			Soil sample	s collected at 8 feet and 14 fe	æt.										
										1					
													•		
														-	
														74	
WAT	ER LEVE	L OBSE	RVATIONS			BORT	L NG ST	ART	 ED: 12	2/11/9	7			PCA04-1574	
W.L.	Encount			RSI		BORI	NG CC	MP	LETED	: 12/1	1/97)AQ	
W.L.	W.L.		ENVIRONMENTAL CONSULT	ANTS		RSI Ge VN: G		be		LLER ROVE	<u>: TDS</u> ED:		A		
	W.L. The Stratification Lines Repres								The'				Grad	1191	











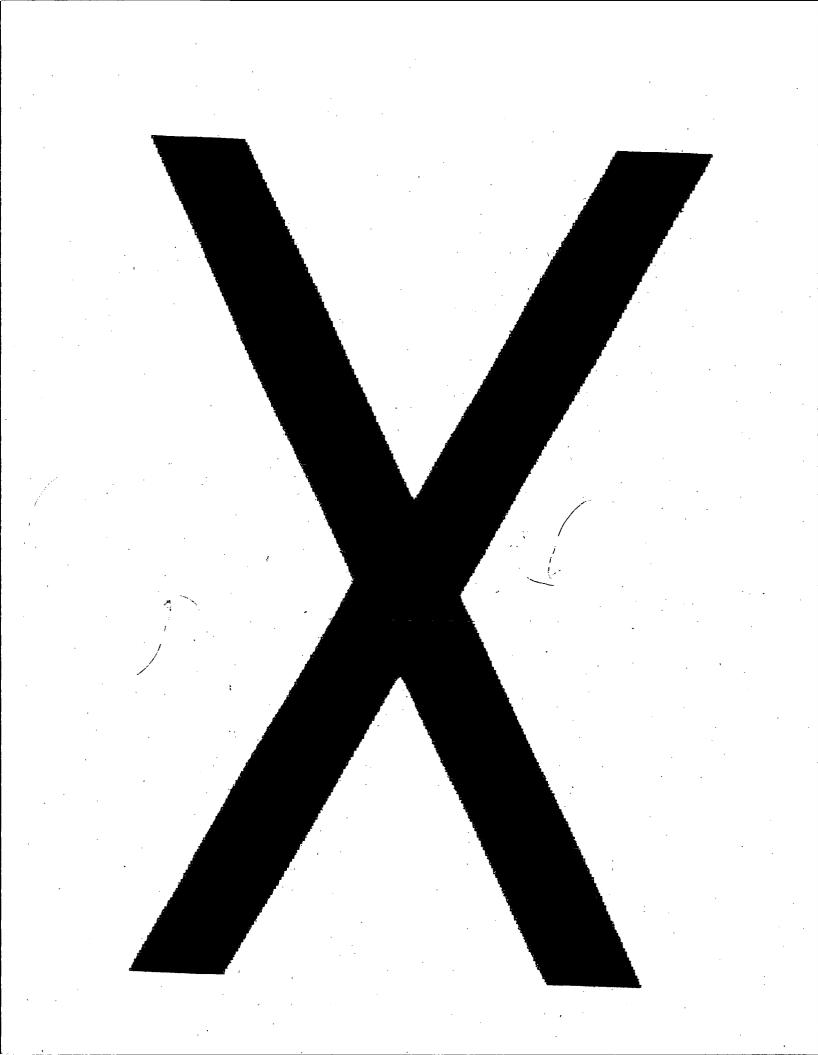
VELL LOCATION		1	MIN		DEPARTMENT OF HEALTH	MINNESOTA UNIQUE WELL NO.
ounty Name		1			LL RECORD	559216
ST LOUIS	S	1		Minnesc	ota Statutes Chapter 1031	
ownship NameCity of Township	No. Range No.	Section No. Fr	action		WELL DEPTH (completed) Date W	Vork Completed
Duluth 50	0 13	4 4	WINE.	NNI 1	18 M	arch 27, 1995
Imencal Street Address and City of V		or	Fire Numo	er	DRILLING METHOD	
1860 Lester R	· · · · · · ·				Cable Tool Driven	Dug
now exact location of well in section (nap of well	location.	Auger C Rotary	Jetted
	· · · · · · · · · · · · · · · · · · ·	Sha	wing prope	arty lines,	DRILLING FLUID	
		1	MAINT	_	NONE	
	1 1 1		GARAGI			
	Kvcr ™	<u>8</u>		5	USE Domestic 🕱 Monitoring	Heating/Cooling Industry/Commercial
w	E_ >			I	C Imgation C Public	
·····	11 121	Ro	A M	W-1	Test Well Dewatering	C
	- + mi. _	/ 8 *			CASING Drive Shoe? 🗆 Yes 🕱	No HOLE DIAM.
┥╾┝╴┥╼┝╴┥	¥∟	1000	Ż	í	Steel 🏋 Threaded	Welded
1 mile		PICES			S Plastic	I
•	13					
	• •				CASING DIAMETER WEIGHT	0 6
ROPERTY OWNER'S NAME					in. to ft	Ibs./ftin. to ft.
City of Di		• • <u>-</u> • • • • • • • • • • • • • • • • • • •			ft	lbs./ft in. to ft.
Mailing address il afferent than proper		ibove.			in. to ft	fbs./ft in. to ft.
Bob Troc	lih					PEN HOLE
city of T	Duinth					omft.toft.
313 61+4	1 Hall					iam
Tuluth	MN 552	~ 7			Slot/Gauze	angth 10'
puluin,	יזכב אוויי	۲ ک				FITTINGS: Flush Threaded
GEOLOGICAL MATERIALS	COLOR	HARDNESS OF MATERIAL	FROM	то	STATIC WATER LEVEL	auton Data manura 2127 195
GEOLOGICAL MATERIALS	COLON	·····	FROM			
L	_	med			PUMPING LEVEL (below land surface)	
Erravel + Sand	Brown	Hard	0	2	ft. after	hrs. pumpingg.p.m.
	Red				WELL HEAD COMPLETION	
Clau	BRWN	Soft	8	18	Pitless adapter manufacturer	Model
					Casing Protection	X:2 in. above grade
					GROUTING INFORMATION	
					Weil grouted? 🎇 Yes 🗔 No	
					Grout Material X Neat cement XEthic:	
					from to	. t 🖸 yds. 🗇 bags
—					from to	ft 🗆 yds. 🚍 bags
					from to	tt 🗆 yds. 🗆 bags
					NEAREST KNOWN SOURCE OF CONTAMINATION	
						direction petroleumtype
					Well disinfected upon completion? 🙄 Yes 🛛 🌿 No	
· ·					PUMP	
					X Not installed Date installed	
					Manufacturer's name	
	1				Model number HF	
					Length of arop pipe ft.	Capacityg.p.m.
.	ļ			· · · ·	Pressure Tank Capacity	
			i		Type: 🗅 Submersible 🗔 L.S. Turbine 🗌 Recipro	cating _ Jet 3
					ABANDONED WELLS	
					Does property have any not in use and not sealed well's)? 🗮 Yes 🦉 No
					WELL CONTRACTOR CERTIFICATION	
					This well was drilled under my supervision and in accord. The information contained in this report is true to the bes	
Use a second	l I sheet, if needed				EARTH DURNERS	M0142
EMARKS. ELEVATION, SOUR	CE OF DATA, etc.				EARTH BURNERS Licensee Business Name	Lic. or Reg. No.
					Charles Monum	1 2halor
94126 Leste	i rark (adif col	urse	ر	Authonzed Representative Signature	Pata Data
MW-1					numinized nepresentative Signaldie	
					Name of Driller	Date
-						
		<u></u>				
MINN. DEPT. OF	HEALTH O		592	121	PCA04-1581	HE-01205-04 (Rev. 5/92)
	••••••••••••••••••••••••••••••••••••••			. <u> </u>	//07 /001	

VELL LOCATION	<u></u>	1	MIN	NESOTA	DEPARTMENT OF HEALTH	MINNESOTA UNIQUE WELL NO.						
ounty Name				WE	VELL RECORD 559217							
St Loui	S	-		Minnesc	ota Statutes Chapter 103I							
Township NameCity OF Township	No. Range No.	Section No. Fr	action		WELL DEPTH (completed) Date Worl	k Completed						
Dujuth 50	5 13	14 N	W NE	NW%	15 h	arch 28, 1995						
umencal Street Address and City of V			Fire Numb			🖸 Dug						
1860 Lester Ri	ver Rea	d			Cable Tool Driven	C Jetted						
show exact location of well in section g	grid with "X".	Sketch r	nap of well wing prope	location.								
<u> </u>	171	3110	oads and b	ouildings.	DRILLING FLUID							
	Rad	10001	MAINT	コ	NIA							
			GARAG	~	USE Domestic X Monitoring	Heating/Cooling						
	<u>ເ</u>]ວ]	MW-2	•	7	Imgation Public	Industry/Commercial						
	River		md		Test Well Dewatering							
	16 mill	Access		N	CASING Drive Shoe? 🗆 Yes 🕱 N	O HOLE DIAM.						
┝╼┥╸┥╸┥╸	11 15 7	Acce	1	N		Weided						
1 mile			/		Plastic							
	121				CASING DIAMETER WEIGHT							
ROPERTY OWNER'S NAME	· l.,				<u>2_in.to</u> <u>8</u> n	Ibs./ft. 8 in. to 15 ft.						
city of Du	luth				in, to ft	lbs./ftin. toft.						
Mailing addressed different than proper		bove.			in. to ft	lbs_/ft in. to ft.						
Bob Trooli	ĥ					IN HOLE						
City of Du Ziz City H	ucth				Make Johnscn from							
313 (1+4)	tall				Type SCH 40 PVC Dian							
Duluth, 1	MN 5580	7			Slot/Gauze 10 Leng	ITTINGS: Flush Threaded						
GEOLOGICAL MATERIALS	COLOR	HARDNESS OF	FROM	то	STATIC WATER LEVEL	face Date measured 3122/95						
		MATERIAL										
01-	Red	S.C.	0		PUMPING LEVEL (below land surface)	hrs. pumping						
- Clay	Brown	Soft	0	15								
J					WELL HEAD COMPLETION	Model						
			ļ		* Casing Protection Steel Fiser	12 in. above grace						
	1				GROUTING INFORMATION							
					Well grouted? K Yes							
					Grout Matenal X Ne.3' cement							
					from <u>6</u> to <u>6</u> tt							
					from to ft.							
			<u> </u>			yds. 🛛 bags						
					NEAREST KNOWN SOURCE OF CONTAMINATION	direction DETRIELIONOS						
	1		I		Well disinfected upon completion? Yes X No							
					PUMP							
		<u> </u>		ļ	X Not installed Date installed							
				1	Manufacturer's name							
		<u> </u>		1	Model number HP	Voits						
					Length of drop pipe ft.	Capacityg.p.m.						
· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>		<u> </u>	Pressure Tank Capacity Type:							
	[rype: Coordensible Co. (Urbine C Reciproca)							
					ABANDONED WELLS							
					Does property have any not in use and not sealed well(s)?	C Yes X No						
					WELL CONTRACTOR CERTIFICATION							
_					This well was drilled under my supervision and in accordan	ce with Minnesota Rules, Chapter 4725.						
					The information contained in this report is true to the best o							
				ļ	LARTH BURNERS	MOULS						
·····	d sheet, if needed		l	L	Licensee Business Name	Lic. or Reg. No.						
REMARKS, ELEVATION, SOUR	-				Ab A Provent	· · ·						
94126 Leste	r tark	Golf Co	urs	と	- Charles Convay	1 2/24/95						
MW-Z					Authorized Representative Signature	Date /						
					Name of Dniler	Date						
MINN. DEPT. OF		אפר אפר	500	17	PCA04-1582	HE-01205-04 (Rev. 5/92)						
			<u>, 5 C</u>	<u>1</u>								

WELL LOCATION			MIN	NESOTA	DEPARTMENT OF HEA	٨	MINNESOTA U	NIQUE WELL NO.
County Name		1		WE	LL RECORD	Γ	55	9218
STLOU	US			Minnesc	ota Statutes Chapter 1031	L		0110
Township NameCITY OF Townshi		Section No. Fr	action		WELL DEPTH (completed)	Date Work C		7
JULLITH 50	0 13	4 N	WINE.	NW.	12	Mai	rch 28	1995
mencal Street Address and City of	Well Location		Fire Numb		DRILLING METHOD			,
1860 Leste	r River	Rd			Cable Tool Drive		🗋 Dug 🖸 Jetted	a i
Show exact location of weil in section	grid with "X".	Sketch r	map of well wing prope	and lines			·	
<u> </u>		1000'	roads and t	ousidings	DRILLING FLUID			
····· K·····	- 3 +		Seen	03	none			
	- a		\int	يستسرا	.USE Domestic X Mon	iterine.	🗆 Heati	ng/Cooling
w	- 2		~	-	Domestic Strain			try/Commercial
		()	/ A	l ^e	C Test Well C Dew	atering	Reme	
	- 4 mi .	15			CASING Drive Shoe?	es XNo		HOLE DIAM.
┑╾┝┍╌┥╴┥╶┝╴┥		<u></u>			🗆 Steel 🗶 Threaded		Veided	ĺ
		Access			X Plastic			
	131				CASING DIAMETER WEIGH			1
PROPERTY OWNER'S NAME							lbs./ft.	8 in. to 12 m
citu of I	YILIN+L				in. to it		lbs./it.	in. to #
Mailing address Utiliferent than prope	MINICAL A	bove.			in. to ft		ībs./it.	in. to ft.
BOD T	rollin					OPEN	HOLE	· · · · · · · · · · · · · · · · · · ·
/iter n		+1.			Make Johnson	from _	t	.toft.
		J N			Type SCH 40 PVC	Diam.	 ,	
213 C	f Dulu ity Hal th, MN	1			Slot/Gauze 12	Length		
Dulut	th, MN	55802			Set betweenfL and2	ft, FIT		
	Т				STATIC WATER LEVEL			
GEOLOGICAL MATERIALS	COLOR	HARDNESS OF MATERIAL	FROM	TO		ve land surface	ce Date measur	red
	Red				PUMPING LEVEL (below land surface)			
Class	Brown	Soft	0	12	N/Aft. after	hrs	i. pumping	ĝ.p.m.
j					WELL HEAD COMPLETION			
					Pitless adapter manufacturer Zasing Protection Steel rise	 20	Model	
					• • • • • • •	4		e grade
					GROUTING INFORMATION			
					Well grouted? X Yes 🗋 No Grout Material X Neat cement X 200	dia.		
					from to	<u>н.</u>		yds bags
						tt.		
		L			trom to	Ħ.		🔔 🖂 yds. 🗆 bags
					NEAREST KNOWN SOURCE OF CONTAMINA			1. 1.
							_direction P	troleumype
					Well disinfected upon completion? 🗔 Yes	X No		
•					PUMP			
					X Not installed Date installed			
	1				Manufacturer's name			
					Model number			
	1				Pressure Tank Capacity	n. v a		
			[]		Type: Submersible LS. Turbine	Reciprocating	j ⊒ Jet ⊒ _	
·····	1				ABANDONED WELLS	d malline -	- Vac -1.	
					Does property have any not in use and not seale	nu well(s)?	⊥ Tes XINO	
					WELL CONTRACTOR CERTIFICATION			
					This well was drilled under my supervision and in			lules. Chapter 4725.
	1				The information contained in this report is true to		•	
Use a secon	l Id sheet, if needed				EARTH BURNE	ĒR	MAR	42
EMARKS, ELEVATION, SOUR		L	L	· · · · · · · · ·	EARTH BURNE Licensee Business Name Charles Consult Authorized Representative Signat		Lic. or Reg. i	No.
· · ·			1101-	. z	Alasta Anna		2/2	
94126 Les			1W-	5	Chauer Conad	4		/72
Go	olf Cou	rses			Authonzed Hepresentative Signat	u re	/	ale
2,1					•			
					Name of Dniler			Date
MINN. DEPT. OF			592	1 Q l		00	HE	-01205-04 (Rev. 5/92)
		$\overline{\mathbf{J}}$	532	<u> </u>	PCA04-15	83		

ELL LOCATION		1			DEPARTMENT OF HEALTH	MINNESOTA L	JNIQUE WELL NO.
Junty Name			WEL	L ANC) BORING RECORD	56	7885
StIDING				Minneso	ta Statutes Chapter 103I	50	1005
ownship Name Township	No. Range No.	Section No.	Fraction			Work Completed	
ity of Dubrit 500	J 13W	14	NW NE	. Nul 1	14' n	4-29-91	6
louse Number, Street Name, City, and	Zip Code of Well Lo	cation	or Fire Num		DRILLING METHOD		<u> </u>
18/00/ este	Y Rine	r Rd			Cable Tool Driven	Dug	
now exact location of well in section g	rid with "X".		etch map of we	Il location.			
-	MW-	4	Showing prop roads and	buildings.	DRILLING FLUID		
	Č 🚯			•	No		1
·	Grass	h			USE X Monitoring		
┝╍╄╍╄╍╄╼╄╼╄╼╄	Arca	Build	mg .		Domestic Community		ting/Cooling stry/Commercial
		·	, , , ,		Irrigation Noncommu Test Well Demutodee	unity PWS 🛛 Rem	
		Hat 4	ling				
	· L	1172			CASING Drive Shoe? Q Yes Threaded	K No	HOLE DIAM.
┝╍╬╍╬╍╬╍╬╍╠╍╠╍╠┥	Service	Pard)		Steel A Threaded		
	30410	c hoac					
					CASING DIAMETER WEIGHT]
ROPERTY OWNER'S NAME					<u></u>	lbs./ft.	8.25 in. to 1.5 tt.
Piter of	Dulut	Lh l			in. to ft	lbs./ft.	in. to ft.
operty owner's mailing address if diffe	arent than well locate	on address indi	cated above.		in. to ft	lbs./ft.	in. to ft.
				•	SCREEN	OPEN HOLE	
313 Cit Dulut	y-1501	1					ft.toft.
+ ulut	5 MN	55802	2			Diam	
40.00		• -			Slot/Gauze 0,010	Length <u>5'</u>	
					Set between 14.0' ft. and 9.0'	r. FITTINGS: Dollo	m Flush Three
ELL OWNER'S NAME		·······			t. Delow X above land	surface Date measu	ured 4-29-96
_	ME				PUMPING LEVEL (below land surface)		
ell owner's mailing address if differen		r's address indi	icated above		t. after	hrs. pumping	g.p.m.
	t that property owno	1 3 2001030 110					
					WELL HEAD COMPLETION Pitless adapter manufacturer	Model	
					Casing Protection 6" SCH 40 Steel		ve grade
					At-grade (Environmental Wells and Borings ONLY)	34	
					GROUTING INFORMATION		
		LUCONCO			Weil grouted? 🙀 Yes 🗆 No		
GEOLOGICAL MATERIALS	COLOR	HARDNES MATERIA		то	Grout Material X Neat cement X Bentonite Bentenite from to		gh Solids Bentonite
		1		1	Cement trom 5' to 0'	- n. <u>1. 2</u>	U yds. X bags 2 □ yds. X bags
Silty Clay	Ped	Han		10	from to		U yds bags
ing chig		TUS			NEAREST KNOWN SOURCE OF CONTAMINATION		
Ttu Fine Sand	Regulat	Firn	1 10	1.2	200 teet South	direction Din	esel/Gas ypo
ITY FUIL DUIG	Drown	+ 11 11	1 10	12	Well disinfected upon completion? Yes No		
V				1			
		 			PUMP Date installed		
					Not installed Date installed <u>New Years</u> Manufacturer's name		
						1P Vol	
		ļ	ļ		Pressure Tank Capacity		
		1			Type: Submersible LS. Turbine Recipi	rocating 🗆 Jet 🗆	
	ł			1			
				+	ABANDONED WELLS		
	1			1	Does property have any not in use and not sealed well	(s)? 🗆 Yes 🗆 N	o
				+	VARIANCE		
					Was a variance granted from the MDH for this well?	Yes ⊡ No	
		ļ				•	I
	J	1			WELL CONTRACTOR CERTIFICATION		
Use a second	i sheet, if needed				This well was drilled under my supervision and in acco		Rules, Chapter 4725.
EMARKS, ELEVATION, SOUR	CE OF DATA, etc.	,			The information contained in this report is true to the be	est of my knowledge.	
MW-4					Earth/Burnens	MAIL	2
4 * * # * * #					Licensee Business Name	Lic. or Reg	No.
					Martin 1 h.	. In I	
					(and One	Wy	
					Authorized Representative Signature	7	Date
						In st.	
					raul P. KIPe	1a T-2	-1-76
MINN. DEPT. OF			5678	885	Name of Driller		Udi le
MININ. DEFI. UF			001			HE	E-01205-05 (Rev. 1/95)

	ļ			DEPARTMENT OF HEALTH MINNESOTA UNIQUE WELL NO. D BORING RECORD 567886 Statutes Chapter 1031 567886
N 13W	cation or Sketch	W ".NE". r Fire Numb	ber	WELL DEPTH (completed) n. Date Work Completed 13' *. 4-29-94 DRILLING METHOD Driven Dug Cable Tool Driven Dug X Auger Rotary Jetted
•	Bui			Nonc USE Domestic Community PWS Industry/Cooling Irrigation Noncommunity PWS Industry/Commercial Test Well Dewatering Premedial CASING Drive Shoe? Yes No Steel Threaded Welded HOLE DIAM.
		above.		CASING DIAMETER WEIGHT 2 in. to 13 in. to ft. SCREEN OPEN HOLE from ft.to ft.to ft. Slot/Gauze 0.0/0 Length 7
ME t than property owner	's address indicated	above.		Set between 13 ft. and 6 ft. FITTINGS Battom Thread STATIC WATER LEVEL 2 ft. Abelow above land surface Date measured 4-2.9-9(4 PUMPING LEVEL (below land surface)
COLOR	HARDNESS OF MATERIAL	FROM	то	Well grouted? XYes INO Grout Material X Neat cement X Bentonite Concrete High Solids Bentonite Bentonite from <u>4</u> to <u>3</u> ft. <u>1</u> oyds. X bags Cement from 3 to 0 ft. <u>1.5</u> vds. X bags
Red	Hard	0	4	fromtoft yds bags
Brown-	Hard	4	7	Well disinfected upon completion? Yes XNo
Red Brown	Firm Firm	79	9 13	PUMP Date installed
				Length of drop pipeft. Capacityg.p.m. Pressure Tank Capacity
				ABANDONED WELLS Does property have any not in use and not sealed well(s)? Yes No
·····				VARIANCE Was a variance granted from the MDH for this well? Yes INO
l sheet, if needed				WELL CONTRACTOR CERTIFICATION This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725.
	River F River F Arass Area Service Dulut orent than well location The formation of the formation ME ME COLOR Red Brown- Red	No. Range No. Section No. F N 13W 4 12p Code of Well Location River Rd prid with "X" Skatch Area Buil Service Road Duluth erent than well location address indicated HALI MA 55802 ME than property owner's address indicated ME COLOR HARDNESS OF MATERIAL Red Hard Brown- Red Hard	No. Range No. Section No. Fraction N 13W 4 NW 'ME' 12p Code of Well Location or Fire Number River Rd or Fire Number Ind with *X* Skatch map of well schowing proported as and Grass Area Building Service Road Gashree Duluth erent than well location address indicated above. HALI MA MA MA MA State and Grass Area Building Service Road Gashree Duluth erent than well location address indicated above. ME ME total property owner's address indicated above. ME color MATERIAL Red Hard Browner's address indicated above.	No. Range No. Section No. Fraction N. 13W 4 WW WELLANN 4 Diver Rd prod well Location River Rd prod well Location River Rd Buildings. Grass Area Building Service Road Duluth erent than well location address indicated above. HALLI MA 55802 ME ME t than property owner's address indicated above. COLOR HARDNESS OF FROM TO Red Hard 0 4 Red Hard 0 4 Red Hard 4 7 Browner Red Hard 4 7 Browner Red Firm 7 9



1301 NORTH THIRD STREET ■ SUPERIOR, WISCONSIN 54880 FAX # 715-392-7163 ■ (715) 392-7114

SINCE 1972 SINCE 1972 SINCE 1972 July 26, 1990 July 26, 1990 TPT# 91-90E

> City of Duluth Administrative Services 313 City Hall Duluth, Minnesota 55802

Attn: Mr. Robert Troolin

Re: Excavation Report, City of Duluth Lester Park Golf Course Maintenance Shop MPCA ID# 5358

Dear Mr. Troolin,

Enclosed you will find a report for the environmental monitoring conducted during the excavation of underground petroleum storage tanks (UST's) and petroleum contaminated soils from April 24 through May 7, 1990 at the Lester Park Golf Course Maintenance Shop. The report consists of a Minnesota Pollution Control Agency (MPCA) "Underground Storage Tank Removal Information Form" and an Excavation Report.

The work performed by Twin Ports Testing, Inc. (TPT) consisted of onsite observations, soil vapor screening, sampling of soil for laboratory analyses and compilation of data for this report. UST removal, soil excavation and soil treatment have been conducted by Anderson Sand and Gravel and Demolition of Saginaw, Minnesota. Laboratory analyses were conducted by Serco Laboratories of St. Paul, Minnesota.

Soil vapor screening and laboratory analyses of soil samples collected from the final excavation indicated petroleum contamination remains in soils at the base and walls of the excavation. The base of the excavation coincides with the depth of groundwater indicating that groundwater has been impacted. The lateral limits of contamination were not reached by excavation due to constraints by utilities, the road and the building. The extent of contamination at and below the watertable is unknown.

It is important to note that recent guidelines published by the MPCA (April and May 1990), state that a Remedial Investigation (RI) is necessary to assess closure of tank release sites if soil contamination exists above the soil vapor action levels of 10 parts per million (ppm) and/or if laboratory results from soil samples taken from the base or sidewalls of the excavation are greater than 50 ppm total petroleum hydrocarbons. An RI is required if the release has affected groundwater.



MPCA, HAZARDOUS WASTE DIVISION We have recommended that soil borings be conducted to determine the extent and magnitude of soil and groundwater contamination at the site. The results of the soil boring survey would be used to determine if further RI work or cleanup action is necessary. Upon completion of the investigation, an RI report should be completed which can be submitted to the MPCA for review along with this Excavation Report.

Upon your request, TPT will produce a proposal for an RI including a work plan and cost estimates for onsite investigative work, comprehensive reporting and a Corrective Action Design (CAD).

We would like to thank you for allowing us to be of service to you on this important project. If you have any questions concerning this report or a proposal for further investigative work, please feel free to call us anytime. We look forward to hearing from and working with you in the near future.

Sincerely,

Tahn

Rick J. Palm, Geologist Twin Ports Testing, Inc.

RJP:sk

TABLE OF CONTENTS

Underground Storage Tank Removal Information Form 1 Location 2 Background Information 2 Site Geology 2 Surface Expressions 3 Surface Material 3 Excavation Process 3 Materials Encountered 5 Groundwater Observations 6
Background Information 2 Site Geology 2 Surface Expressions 3 Surface Material 3 Excavation Process 3 Materials Encountered 5
Site Geology 2 Surface Expressions 3 Surface Material 3 Excavation Process 3 Materials Encountered 5
Surface Expressions 3 Surface Material 3 Excavation Process 3 Materials Encountered 5
Surface Material 3 Excavation Process 3 Materials Encountered 5
Excavation Process
Materials Encountered
Groundwater Observations
Soil Testing Procedures
Areas of Contamination
Soil Samples
Condition & Description of Tanks 7
Handling of Contaminated Soils 8
Discussion
Risk Assessment
Conclusions
Recommendations

Figures

	Figure 1	Site Location Map
	Figure 2	Soil Borings Data and Well Sites
	Figure 3	Maintenance Shop Site Map
	Figure 4	Excavation of Tanks #1 & #2
	Figure 5	Vapor Headspace Readings Initial Excavation
	Figure 6	Excavation Showing Exploration Trenches
	Figure 7	Final Excavation and Vapor Readings
	Figure 8	Soils Analysis Results Tested Hydrocarbon
Tables	Table 1.	Summary of Headspace Analysis

 Table 2.
 Summary of Soil Laboratory Analysis

Appendix A:

Laboratory Analysis Report No. 1131 Chain of Custody Record Flash Point Report, Fluid Sample #1 1301 NORTH THIRD STREET ■ SUPERIOR, WISCONSIN 54880 FAX # 715-392-7163 E (715) 392-7114

Underground Storage Tank Removal Information Form

This form is provided to tank owners and operators, fire department representatives and others to assist the observation of underground storage tank removals. It is the legal duty of the tank owner and operator to report any evidence of petroleum contamination to the Minnesota Pollution Control Agency.

Observer:

Signature:

SINCE 1972

(S TESTING inc

Jack Granguist Date: April 24, 1990

Organization: Position: Address: Phone:

Twin Ports Testing, Inc. **Environmental Scientist** 1301 N. Third Street, Superior, Wisconsin 54880 (715) 392-7114 Fax: (715) 392-7163

Time:

TANK INFORMATION

Tank Owner Name: City of Duluth MPCA ID#: 5358 Contact Person: Bob Troolin **Risk Management Specialist** Title: Tank Location: Lester Park Golf Course Maintenance Shop Address: 1860 Lester River Road Duluth, Minnesota 55804 Phone: (218) 723-3291 County: St Louis Excav. Contractor: Anderson Sand, Gravel, and Demolition 4597 Old Hwy 53 Saginaw, MN 55779

TANK	CONDITION <u>& SIZE</u>	CONTENTS (PRODUCT)	VISIBLE <u>CORROSION</u>	VISIBLE <u>LEAKAGE</u>	SOIL CONTAMINATION
#1	350 gallon	Gasoline	Yes	Yes	Yes
#2	265 gallon	Unknown	Yes	No	Yes

SOIL CONDITIONS WITHIN EXCAVATION

1.	Detectable petroleum contamination was found?	Yes
2.	Petroleum Odors (moderate)	Yes
3.	Visible petroleum product in soil?	Yes
4.	Sheen on water mixed with soil?	Yes
5.	Sheen on ground water in excavation?	Yes
6.	Petroleum product on ground water in excavation?	Yes
7.	Vapor detection instrument used (HNu PI-101)	Yes
8.	Soil samples taken from under tank(s)	Yes
9.	Soil type: Moist Silty-Sandy Clay with Gravel (Glacial Till)	

10. Pictures taken: no

Tank disposed by: Cliff Anderson Where: Anderson Shop Location 11.

The Minnesota Pollution Control Agency (MPCA) must be notified immediately of any evidence of petroleum contamination.

24 Hour Emergency or Spill Number:	612-296-8100
Business Hours:	612-296-7235 or
	612-296-7709

Excavation Report for City of Duluth, Lester Park Golf Course

Page 1 of 10

TPT Job #: 91-90E

EXCAVATION REPORT

Location:

Site Geology:

Background Information:

Lester Park Golf Course Maintenance Shop, 1860 Lester River Road, Duluth, Minnesota 55804. The location is shown in Figure 1.

The maintenance shop and surrounding area serves as the center of activity for equipment maintenance, grounds keeping, and irrigation for the Lester Park Golf Course. The UST's were used to refuel light-duty vehicles and gasoline powered golf carts.

The UST had been in service up until the Spring of 1989. During the Winter of 1988-89, it had been left half full of gasoline. When pumped early in the season the tank contained a large amount of water. It was then pumped dry and left in the ground until it was removed during the Spring of 1990 (described below).

The irrigation source for the course sprinkler system comes from a large reservoir pond located north and west of the shop area (see Figure #3). This reservoir is filled from five wells surrounding the pond. These wells are reported to be an average of 540 feet deep, drilled into bedrock. Prior to the drilling of these source wells the irrigation system was fed by a 6 inch City of Duluth water main that enters the pond at the southwest side. Although not being utilized because of the new well system, this water source is still available. The irrigation system distributes water from the reservoir pond, pumping from a pump station (northwest corner of the pond near well #3) through underground pipes that pass close to the UST removal site. All surface ponds are lined with an 18 inch base of clay that prevents water loss into native soils and also reduces the interaction of ground water with the pond water.

The area just south of the UST's and maintenance shop road is utilized for growing nursery grasses for green and fairway repair. Course maintenance foreman, Glen Oliver, stated that there has never been a problem with the productivity of the sites and that if there was petroleum product in contact with the seed grasses, it would be readily apparent.

The Lester River Golf Course is located over bedrock identified as the North Shore Volcanic Group (geologic age 1,100 million years) that consists of basalt and related rocks of igneous origin.

The bedrock is overlain by glacial sediments deposited in the Pleistocene Epoch, late Wisconsin Age. These sediments are associated with the Nickerson Moraine Association and consist primarily of clayey till (locally calcareous) resulting from the incorporation of proglacial lake sediments. More specifically at

Excavation Report for City of Duluth, Lester Park Golf Course

Page 2 of 10



Lester Park, the sediments are elements of ground moraine including clayey till that is an unsorted and unstratified mixture of all sizes of rock material deposited directly by glacial ice with little or no reworking by water. The overall golf course strata has been investigated using soil boring analysis. This work was conducted in conjunction with golf course improvements and expansion by Richard M. Phelps. Golf Course Architect, P.O. Box 3295 Evergreen, Colorado 80439. A portion of these data are shown in Figure #2, which depicts soil boring sites and strata identified at each location between the ground surface and bedrock. Information was provided to TPT by the contractor, Park Construction Co. Date: Excavation and Tank Removal took place on Tuesday April 24, 1990. Further excavation of contaminated soils continued on Thursday May 3rd, Friday May 4th, and Monday May 7th. Weather: On April 24 it was sunny and warm with rain showers over the noon hour and heavy rains that evening. From the time of tank removal and 9 days later when excavation of contaminated soils was resumed there were accumulations of rain. The weather conditions after the excavation of contaminants resumed (May 3rd) were predominately cool with a lake wind and not much precipitation. Time of Excavation: Excavation started at 9:30 AM. The tanks were out of the ground at 10:52 AM. Further excavation of contaminated soils lasted the rest of the day. Excavation on the following days resumed at 8:30 - 9:00 AM and continued until 4:30 - 5:00 PM. The USTs were located beneath a driveway and parking area for Surface Expressions: commercial vehicles that gently sloped to the south into a 12" ditch separating the access road from the golf course nursery area. Surface Material: The surface of the excavation was a packed gravel driveway with a cold mix asphalt ramp for garage door entrance. **Excavation Process:** The excavation proceeded on 4/24/90 using a Case Backhoe 580E. Material around the UST was excavated, exposing the west side, the top of the UST, and the three underground pipes running to the pump. At this time a second UST, designated as Tank #2, was discovered. The UST had long since been abandoned, and its presence was unknown to the occupants. Both tanks contained fluids assumed to be primarily water. Midway Sewer Service arrived to pump both tanks. 400 gallons of fluid were removed from the site and disposed of at UPC (United Purification Co., Superior, WI). All underground pipes were cut and both tanks were lifted from the excavation by the backhoe operator. A hole was discovered during excavation of Tank #1. Considerable amount of liquid leaked out of the center

Excavation Report for City of Duluth, Lester Park Golf Course

Page 3 of 10



of the north end of the tank prior to pumping. A visual estimate of the amount of fluid lost in the spill was between 5 and 10 gallons. A sample of the fluid (which had a strong odor of product) was taken for laboratory analysis. The fluid flowed into the excavation and pooled on the west side of Tank #1. A strong petroleum odor was apparent throughout the rest of the day.

Heavy rain showers occurred just before 12:00. The excavation stockpile was pushed back into the hole to prevent collapse of the excavation walls by the storm runoff. After the weather cleared, the material was re-excavated and as much of the contaminated material was removed from the site as possible. Four 12 yard trucks (estimated 48 yards) of material was removed from the site to Anderson Site #4 on 4/24/90. With heavy rains expected that evening, the excavated stockpile was again pushed into the hole to prevent surface contamination from stockpile runoff and the collapse of the excavation walls. Further excavation of contaminants was rescheduled to a later date.

The site excavation was resumed on Thursday, May 3. The excavation had filled up with rainwater and runoff over the interval. A water sample was taken prior to removal of the water. There was no visible sheen on the water surface and no odor. Only small accumulations of cohesive bubbles were scattered on the water surface. Midway Sewer Service arrived and removed 1000 gallons and transported it to WLSSD.

The backhoe operator arrived on site and immediately started to remove material from the hole that had been put back in during the rain. Midway Sewer returned for a second load of 1000 gallons for WLSSD. It was decided to excavate small test trenches surrounding the site in an effort to determine the extent of contamination away from the former tank location without having to dig up the entire area. The small test trenches would not be accidentally contaminated from material within the main excavation. The removal of contaminated material and bringing in of clean backfill continued all day.

Four test trenches were completed during the course of the day. Trenches #1, #2, and #4, located on the west, south, and east of the excavation proved to be contaminated (See Table 1 and Figure #6). Test Trench #3, located due south and across the driveway proved to be free of contamination and consisted entirely of lean clay material. The test trenches were backfilled with the same soil immediately thereafter.

On the following day (May 4) Rick Palm, a TPT geologist visited the site. It appeared that contamination had migrated through a lens of porous reddish brown silty sand. Since the excavation site was located within the busy maintenance area of the open golf course, some decisions had to be made regarding further

Excavation Report for City of Duluth, Lester Park Golf Course

Page 4 of 10



action. The site was tightly confined by the shop building to the north, buried telephone line to the east, the main access driveway and buried telephone line to the south, and drain tile and main course underground irrigation lines to the west (See Figure #4). The conclusion was to scrape away the top clean surface material and stockpile and reuse it for backfill. Excavate to within a reasonable distance from the obstacles, sample, and backfill with clean material. This work proceeded the rest of the day. The site was visited by Dick Olson, a City of Duluth Street Department Supervisor. He requested that no further backfill be hauled in by the contractor, and that any material needed would be provided by the city.

Excavation of contaminants toward the east was resumed on Monday, 5/8/90, at a point 12 feet east of the prior excavation. Excavation started from a new hole in line with Test Trench #4 (see Figure #6). Excavation working back toward the center was done to avoid cross contamination from known contaminated material in the older pit. The top layer was again scraped away down to a layer of wood blocks (reported to be the floor of an old building on site). This top layer tested clean above the wooden blocks and care was taken not to get into known contaminated material. These blocks were excavated along with the contaminated soils. Excavation toward the east continued and samples were taken throughout. Clean native soils were encountered along the east and southeast walls.

The contractor received verbal authorization from Mr. Bob Troolin of the City of Duluth for closure at 12:15 PM and proceeded to clean out the hole at depth and to the southeast until either MPCA limits for clean closure were reached or a recognized structural barrier had been reached. Telephone service was accidentally interrupted when the backhoe operator broke the line at the southeast corner of the excavation. The excavation went as far as possible without disrupting the access areas of the site. All contaminated material was off site and backfilling proceeded at 2:30 PM. TPT personnel left the site when the excavation was 2/3 filled. City of Duluth trucks were hauling in street sweepings from a local site. Leveling off of site and minor parking improvements were to be made before the contractor left the site.

<u>Materials Encountered:</u> There were three (3) distinct layers of material encountered during the excavation. Each are described below:

Unit 1. Surface material; angular gravel mixed with fines, a high concentration of which are reported to be street sweepings brought in by the City of Duluth Street Maintenance Department. Layer is generally 10-12" thick throughout. Just below this layer in the NW corner of the excavation was a layer of oily wood blocks that were used as the floor for an old structure on site.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 5 of 10



Unit 2. Lean red clay with evenly mixed angular gravel embedded in it. Material is hard and compacted.

Unit 3. A reddish brown moist silty sand and clay; porous with seams or lenses of gravel encountered (areas of general "bleeding" of fluids back into the excavation). This is the material encountered at the level of the USTs and is the material that contains the high concentrations of product.

The excavation site is down slope from a topographic high point to the north and experiences surface runoff occurring from around the building and the roadways to the north. The supervisor of the maintenance shop reports of historically very muddy conditions over the excavation site during periods of heavy precipitation.

Upon first opening the hole on April 24th, pooling of water in the bottom of the open excavation was observed between 7-8 foot depth and thereafter was assumed to be the water table. After the heavy rain over the first weekend, the hole filled with water to 1.5 feet below the surface, acting as a catch basin. There was also trickling of groundwater from a seam in Unit 3 soils on the northwest corner of the excavation. Water trickling down the side of the excavation was also observed from the north center wall from a depth of 2 feet flowing under the layer of wood blocks and over Unit 2 soils (see background information). This flow of water continued throughout the time the excavation was open.

Soils exposed in the excavation and all materials in the stockpile were observed for evidence of contamination. Soil samples were periodically collected and analyzed in the field according to MPCA guidelines for "Jar Headspace Analytical Screening Procedures." The instrument used in the field was an HNU Model P1-101 organic vapor detector which is calibrated daily to benzene.

<u>ion:</u> During the excavation process, product flowed out of Tank #1 and pooled into the sandy backfill material that it lay in. That material and the silty sand layer (Unit 3) showed very high and consistent organic vapor readings in all directions. The site had an obviously older UST (Tank #2) still in place that was abandoned in place some years earlier. Most samples were taken at 6-7 feet since that was generally considered to be above the water table at the site. The layer above was a very hard clay (Unit 2) and showed little sign of contamination. At depth some clay was encountered but no definite bedding pattern was found, which is typical of glacial till (see Site Geology).

Excavation Report for City of Duluth, Lester Park Golf Course

Page 6 of 10

Groundwater Observations:

Soil Testing Procedures:

Areas of Contamination:

Laboratory soil samples revealed the presence of gasoline in the area below Tank #1 in the area of the leak described during removal (Table 2, SS-2, 230 ppm). Soil samples, SS-7 and SS-16, indicated the presence of fuel oil at depth and to the south of the tank locations (Figure #8). Those concentrations were strong enough to cover up any gasoline in the sample (Table 2). It is possible that the unknown tank (Tank #2) at one time held fuel oil.

As expected of a maintenance shop area, there is evidence of surface contamination. Incidental spills and overflows occur. There are three above ground petroleum tanks on site. Only the gasoline tank indicated in Figure #4 is close to the excavation. Contaminated surface runoff was observed flowing down the north wall from the top of the clay layer. Another point of interest is the wooden block flooring that looked as though they were treated with a petroleum product that turned them black. It could be creosote or another petroleum coating used for a preservative.

Final vapor analysis readings of the excavation indicate that the east end indicated results below MPCA guidelines (see Figure #7, between 0 and 8 ppm @ 6-7 feet). High readings were predominant on the west side of the excavation and close to the building (see Figure #7). Contamination was associated with Unit 3 soils (silty sand/glacial till).

The fluid that spilled from Tank #1 was tested by the TPT Chemistry Department and recorded a flashpoint reading of 76 degree F., proving to be very volatile. The leak that occurred during the tank removal was registered with the MPCA and has been assigned Spill #2536. <u>Chris Zadak of the MPCA has</u> been appointed to follow up on the site.

<u>Soil Samples:</u> As required by MPCA guidelines, one soil sample was collected from beneath each tank. Also, a sample of the contaminated stockpile and water samples were collected.

Laboratory analysis of soil samples revealed a strong presence of gasoline in the area below Tank #1 and associated with the leak described during its removal. Soil Sample #2 revealed 230 ppm when tested for total hydrocarbons as gasoline taken from a point below Tank #1. Soil samples #7 and #16 indicated the presence of fuel oil at depth and to the south of the tank locations. Concentrations were strong enough to mask the presence of any gasoline in the sample (Table 2).

<u>Condition & Description of Tanks:</u> There were two petroleum storage tanks excavated at the site. Tank #1 was in good condition with no visible ruptures, <u>but was</u> <u>leaking product profusely from one end at the time of removal</u>. The UST was disturbed prior to being pumped dry. It is inconclusive how much fluid leaked out at this time.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 7 of 10



Tank #2 was in very poor condition and was abandoned at the time of discovery. It contained 22 inches of what appeared to be ground water that was pumped prior to tank removal. Tank #2 had nine (9) puncture holes visible and was collapsed along both sides. This tank had been left in the ground when abandoned. The owners were unaware of its existence at the time of the excavation. The contents were not known at the time of extraction.

<u>Handling of Contaminated Soils:</u> Contaminated soils were excavated and hauled to an approved site, Anderson Site #4, on the contractor's property for further treatment by thin spreading, aeration, and addition of organic fertilizer.

Discussion: Both tanks were removed without much difficulty, except for leakage of fluids from (proving to have a high concentration of product) from Tank #1. The site was excavated in an attempt to dig out of the contamination, but the confines of roadways, structures, and utilities proved to be a problem. Limits of excavation were defined by the structures and utilities surrounding the site. Disruption of entry/exit on the only road into the Maintenance Shop was avoided.

> Contamination on site was identified as gasoline, but also included fuel oil. When questioned on the use of fuel oil, employees related that fuel oil is the source of heat for the maintenance shop. There is also a diesel powered front end loader at the shop. Both use fuel oil from an above ground tank on the west end of the building. However, this does not discount the possibility that the unknown tank could have been an underground fuel oil storage tank. Oil products may have been introduced through the wooden block flooring of the former workshop. Soils with an oily sheen were noted directly beneath this flooring material which was discovered at the west side of the excavation. Laboratory analyses indicated fuel oil contamination in the west side of the excavation.

> Migration of contaminants beyond the limits of the excavation in the subsurface was not determined. There was evidence of contaminant movement through the sandy lenses in the Unit 3 type soils. The extent of these lenses beyond the limits of the excavation is unknown.

> The soil boring data from Phelps (Figure #2) indicate the silty sand to the north gives way to clay in near surface soils south of the Maintenance Shop. This change in geomorphology seems to follow the Lester River Valley. It might be that the soils closer to the river were deposited in a higher energy environment depositing coarse grained material closer to the river valley. The borings suggest that the subsoils to the south should be primarily clays and would inhibit subsoil migration.

Excavation Report for City of Duluth, Lester Park Golf Course

Page 8 of 10



	off the site to Anderson #4 Site, and 220 cubic yards of backfill material was brought in from the Anderson Pit with the balance of the clean fill was brought in by the City of Duluth. Once excavation limits were determined, the excavation was backfilled.
<u>Risk Assessment:</u>	The results of soil vapor and laboratory analysis of soil samples indicate that the excavation did not meet MPCA guidelines for clean closure. Authorization for closure of the site came from Bob Troolin, City of Duluth Risk Management Specialist and Project Director after conferring with officials from the MPCA.
	Soils contamination is concentrated to the west of the tank locations and close to the building. It seems to be localized in a sandy clay glacial till below an clay layer. All water wells on site are deep and far enough away that it is unlikely that they would be affected by the release. These wells are used for irrigation, not drinking water. The risks to public health and the environment associated with this petroleum release is minimal.
Conclusions:	Contaminated soils remain at depth below the Maintenance Shop road and parking lot. The full extent of the contamination remains undetermined at this time.
	The nursery areas near the maintenance shop and across the road do not and have not shown any effects of damage due to contaminants from the subsoil. Only limited soil vapors were detected in a test trench dug across the service road to the south.
	The excavation was closed due to the proximity of structures and utilities. Further excavation would have disrupted the busy routine of the golf course maintenance activities.
	The product that was held in Tank #2 was unknown when it was discovered. It was assumed that it was another gasoline tank for fueling of vehicles. The presence of fuel oil in laboratory samples indicate that the product in Tank #2 might have been #2 fuel oil or diesel fuel.

A total of 396 cubic vands of contaminated material was hauled

The former Maintenance Shop floor area was a potential source of surface contamination. Incidental spills and overflows occur in that environment. Contaminated surface runoff was observed flowing down the north wall from the top of the clay layer that underlies the wood blocks. Contamination could be coming directly off the wooden blocks or from spillage over time inside of the old shop. The coating looked like it could be creosote or another petroleum coating used for a preservative.

The site location is at least one-half mile from any residential area and is utilized as a recreational golf course. The wells on site are very deep and are used to feed well-sealed clay lined

Excavation Report for City of Duluth, Lester Park Golf Course

Page 9 of 10



ponds that will not mix with the groundwater or be used as drinking water.

A total of 396 cubic yards of contaminated material were hauled off the site to Anderson #4 Site, and 220 cubic yards of backfill material were brought in from the Anderson Pit with the balance of the clean fill brought in by the City of Duluth.

Recommendations:

The contamination at the site presents little risk to residential or commercial water sources in the area. However, the extent of contamination found at the site was not fully determined or cleaned out by the excavation process.

It is recommended that further investigation be conducted to define the extent of soil and groundwater contamination. We recommend soil borings be placed around and down slope from the release site.

This report was completed in June, 1990.

TWIN PORTS TESTING, INC.

Written and Prepared by:

Jack R) Granquist, Environmental Scientist

Reviewed by:

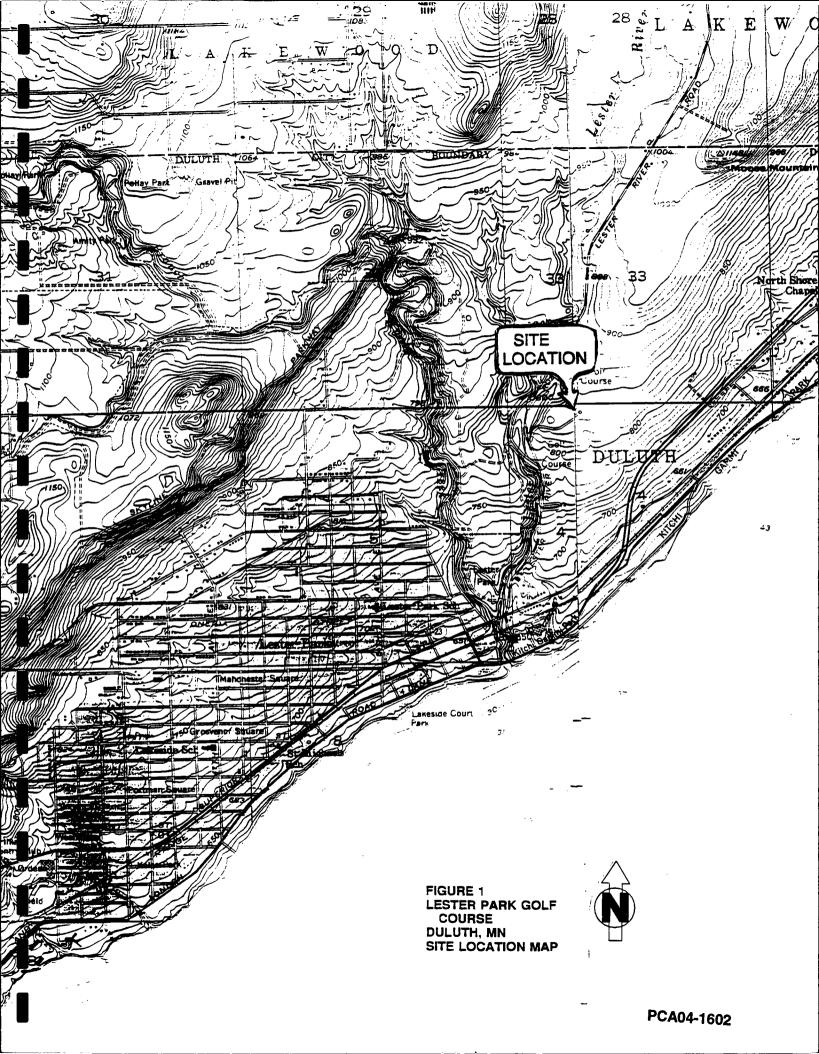
Rick Palm, Geologist

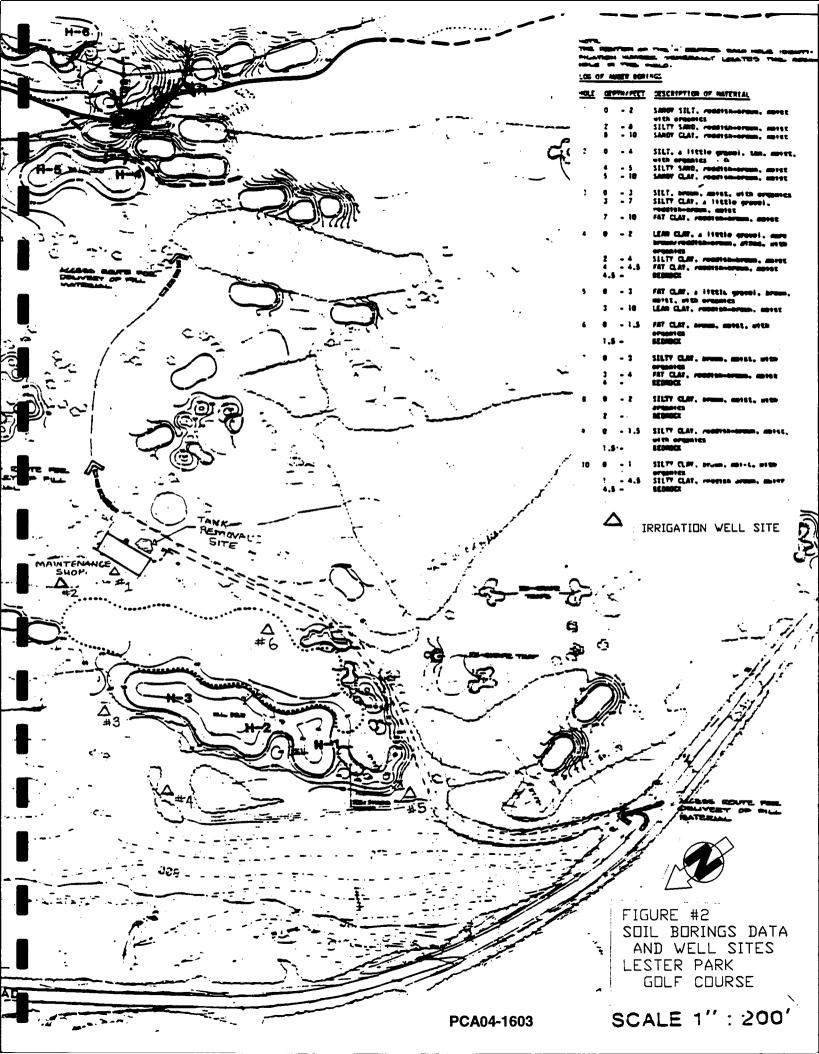
Excavation Report for City of Duluth, Lester Park Golf Course

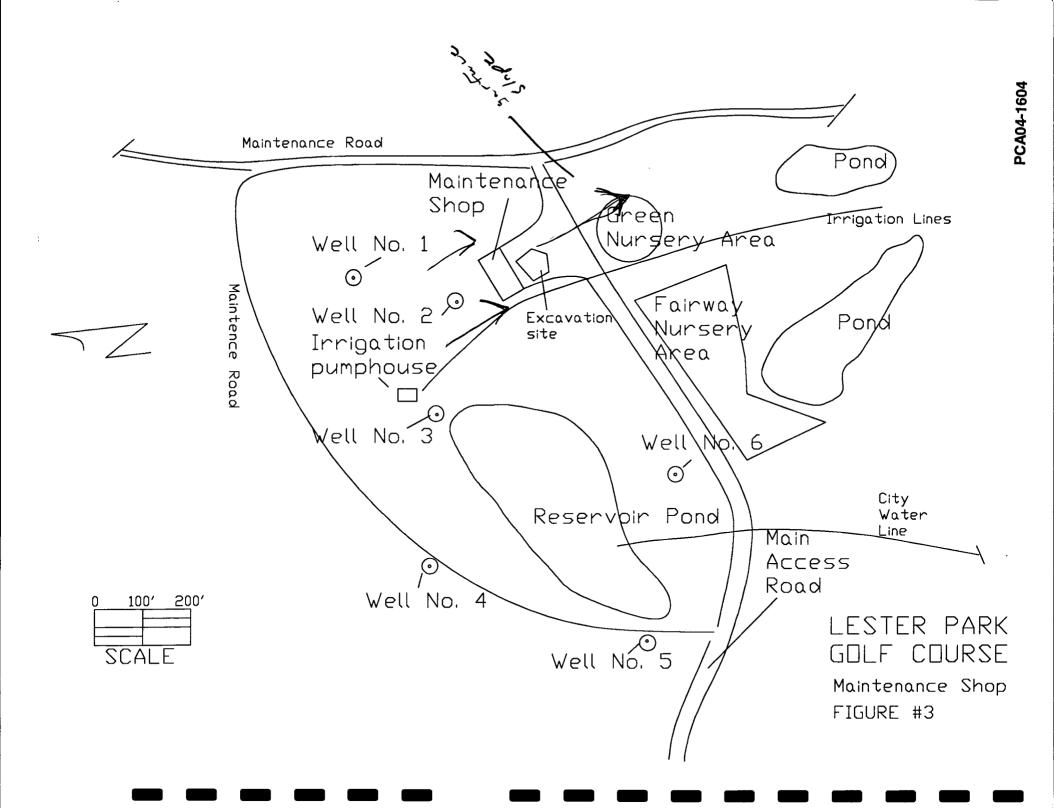
Page 10 of 10

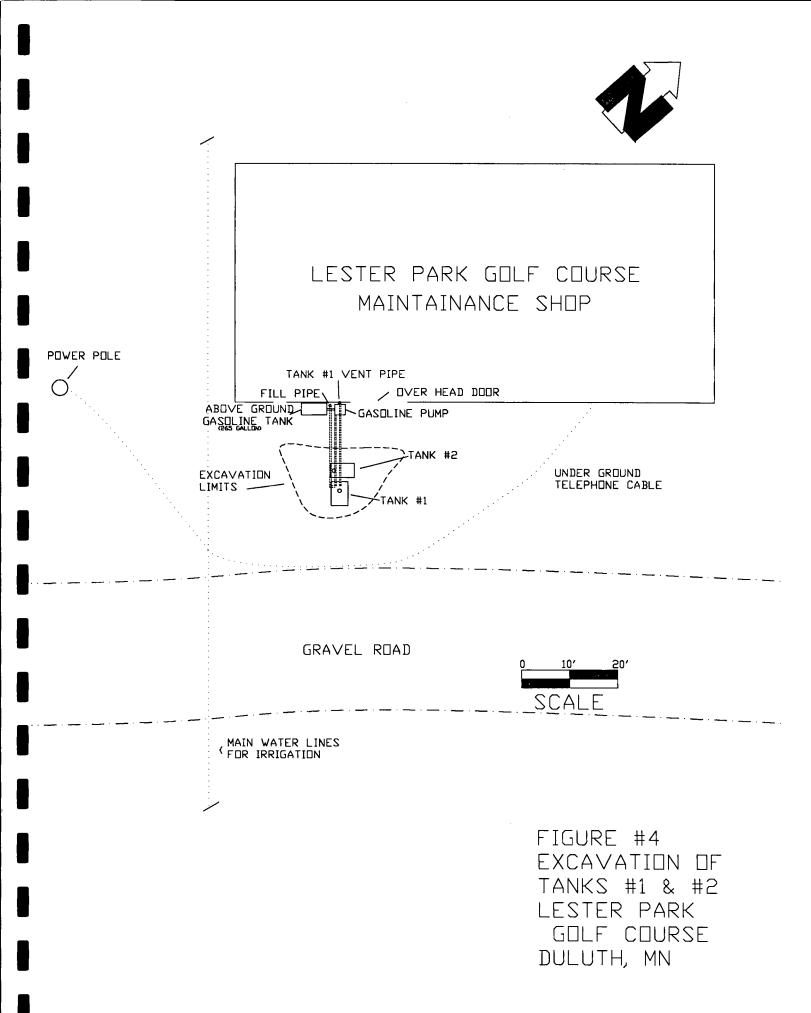


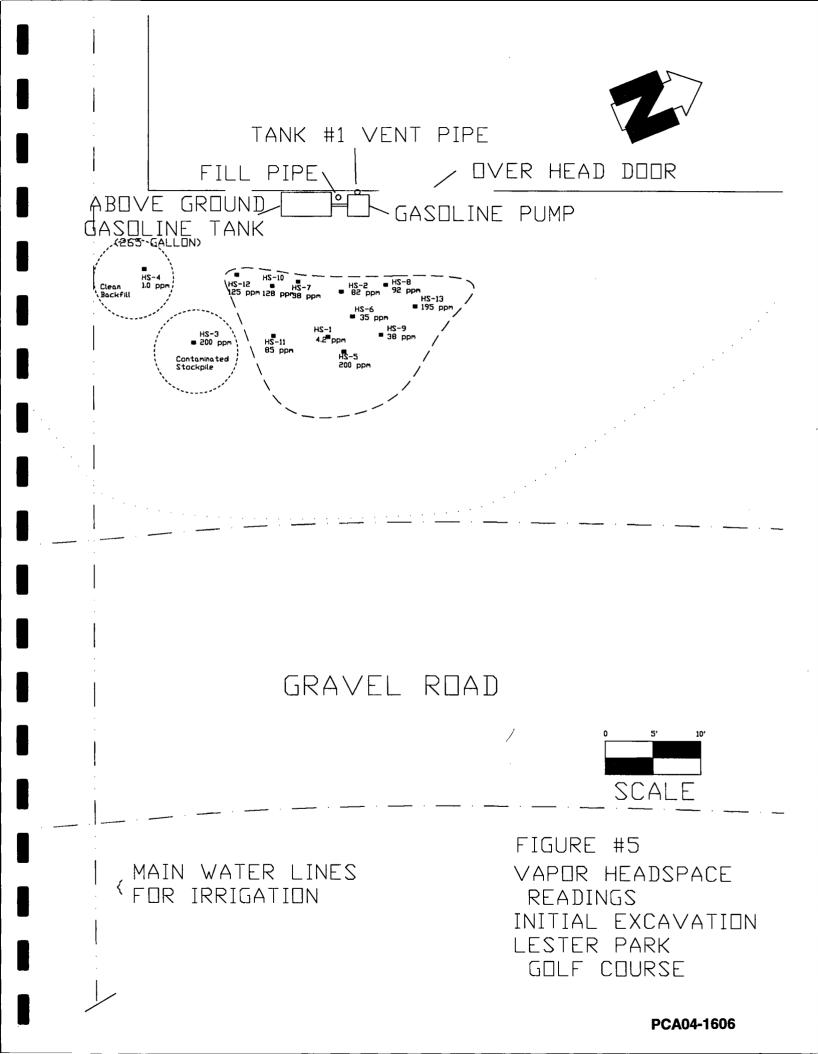
Figures

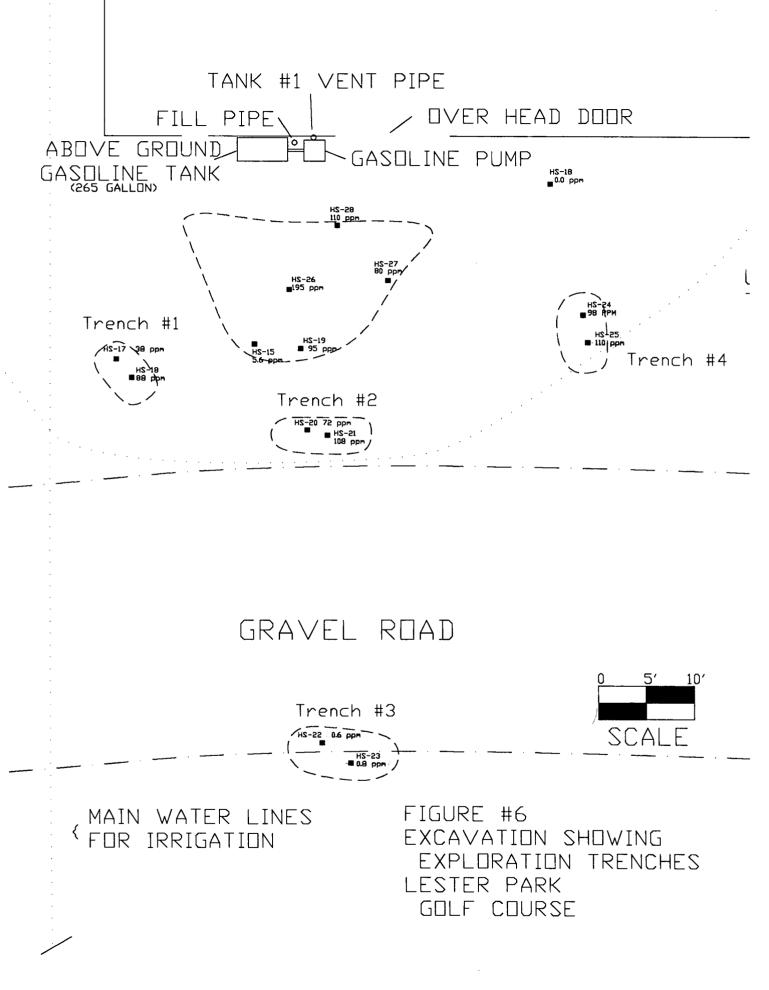




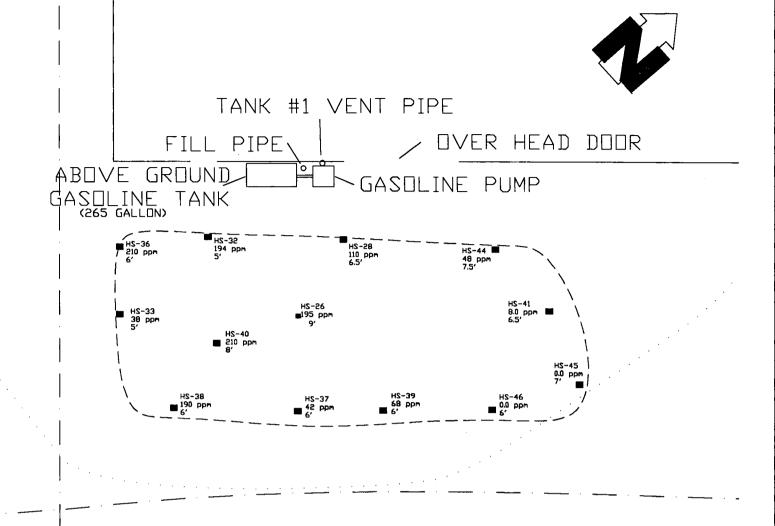








PCA04-1607



GRAVEL ROAD

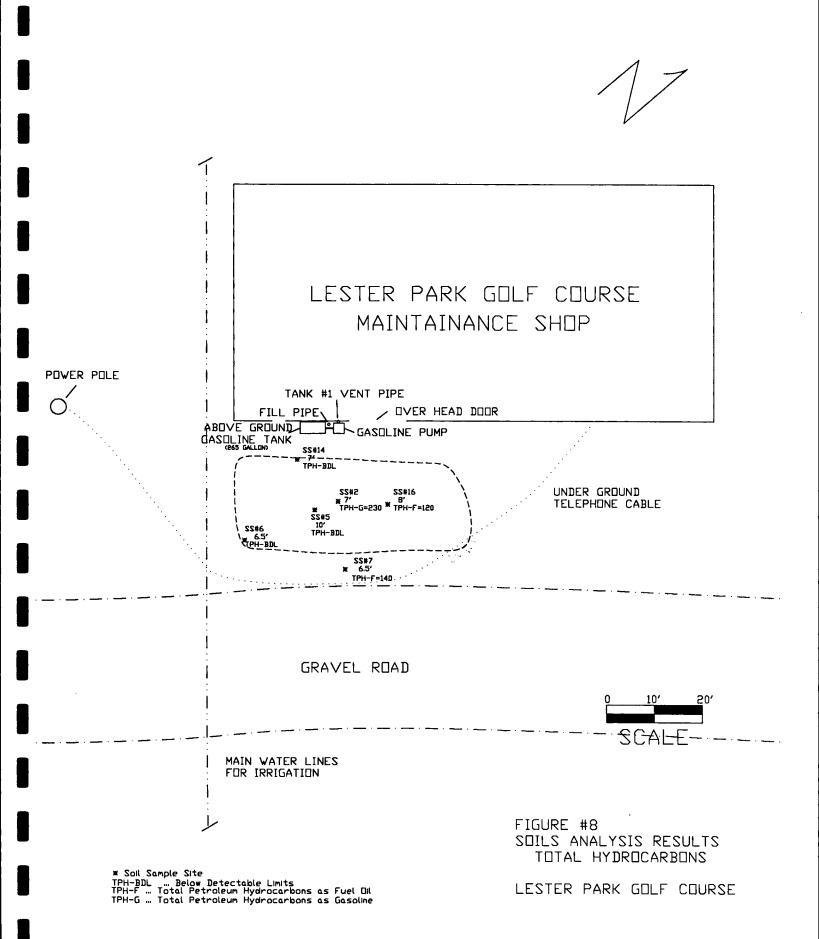


FIGURE #7 FINAL EXCAVATION & VAPOR READINGS LESTER PARK GOLF COURSE

PCA04-1608

5' 10'

SCALE



Tables

TABLE 1

.

SUMMARY OF HEADSPACE ANALYSIS City of Duluth Lester Park Golf Course **TPT# 91-90E**

DATE	LOCATION	DEPTH	SOIL TYPE	ORGANIC VAPOR CONCENTRATION (ppm)	COMMENTS
4-24 -9 0	HS-1	1'	Gravel Fill	4.2	Left side of fill pipe
	HS-2	3.	Gravel Fill	82	North end of Tanks under surface
	HS-3	2'	Sandy Gravel	200	Up stockpile West of E
	HS-4	2'	Street Sweeping	1.0	Clean Backfill brought b
	HS-5	5'	Sandy Fill	200	Under Tank # 1
	HS-6	5'	Sandy Fill	35	Under Tank # 2
	HS-7	6'	Clay	38	North Wall North West T
	HS-8	6'	Clay	92	North Wall North East Ta
	HS-9	5'	Clay	38	East Wall
	HS-10	6'	Clay	128	North West Corner of Exc
	HS-11	7	Gravel	85	West of Tanks
	HS-12	8'	Gravel Beds	125	Up Trench West Wa
	HS-13	6'	Sandy Clay	195	Up Trench East Wa
	HS-14	Sample	No.	Not	Used
5-3-90	HS-15	2	Reddish Brown Silty Sand	5.6	Below Water Level Sout
	HS-16	5'	Same	38	Test Hole # 1
	HS-17	6 1/2'	Same	88	Bottom Test Hole #
	HS-18	6'	Clean Sand	0	Backfill Material From And
	HS-19	6 1/2'	Silty Sand	95	South Wall of Excava
	HS-20	5'	Silty Clay	72	Test Hole # 2
	HS-21	6 1/2'	Silty Sand	108	Bottom of Test Hole
	HS-22	4 1/2	Lean Red Clay	0.6	Test Hole # 3
	HS-23	6 1/2'	Lean Red Clay	0.8	Bottom of Test Hole
	HS-24	5'	Reddish Brown Silty Sand	98	Test Hole # 4
5-3-90	HS-25	6 1/2'	Silty Sand	110	Bottom Test Hole #
	HS-26	9'	Clay	195	Bottom Center of F

				<u> </u>	
DATE	LOCATION	DEPTH	SOIL TYPE	ORGANIC VAPOR CONCENTRATION (ppm)	COMMENTS
	HS-27	6'	Silty Sand	80	East Wall of Excavation
	HS-28	6 1/2'	Silty Sand	110	North Wall of Excavation
5-4-90	HS-29	6'	Gravel & Silt	0.4	Surface Material of Driveway
	HS-30	1 1/2'	Clay	5.2	Layer # 2
	HS-31	3	Clay	130	East Wall of Excavation
	HS-32	5'	Reddish Brown Silty Sand	194	North Wall West of Center
	HS-33	5'	Same	38	West Wall Centered
	HS-34	Stockpile # 1	Gravel & Clay	5.4	Surface Material
	HS-35	Stockpile # 2	Gravel & Clay	98	Front Pile Surface Material Hauled Out
	HS-36	6'	Reddish Brown Silty Sand	210	West Wall North End
	HS-37	6'	Same	42	West Wall Center
	HS-38	6'	Same	190	South Wall West of Center
	HS-39	6'	Same	68	South Wall East of Center
	HS-40	8,	Silty Sand & Clay	210	Bottom West of Center
5-7 -9 0	HS-41	6 1 <i>/2</i> *	Reddish Brown Silty Sand	8.0	Middle East of Center
	HS-42	6 1 <i>/</i> 2'	Same	38	West End of East Excavation
	HS-43	5 1/2'	Same	178	West End of Excavation
	HS-44	7 1/2'	Red Clay	48	North Wall 7 1/2' East Excavation
	HS-45	7	Reddish Brown Silty Sand	0	East Wall Lower
	HS-46	6'	Sandy Clay	0	East Wall Upper
	HS-47	6'	Reddish Brown Silty Sand	0	East Wall of Excavation.

TABLE 2

Summary of Soil Sample Analysis

Lester Park Golf Course 1860 Lester River Road Duluth, Minnesota 55804

TPT #91-90E

Sample #	SS #2	SS #6	SS #5	SS #7	SS #16	SS #14
Location	Below tank	Bottom test hole #1	Bottom center of excav.	Bottom test hole #2	Bottom E of center of excav.	North wall W of center of excav.
Depth	7'	6 1/2'	10'	6 1/2'	8'	
Benzene (ppm)	3.3	<0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Ethylbenzene (ppm)	2.3	0.007	<0.005	0.52	0.29	<0.005
Toluene (ppm)	8.3	<0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Xylene (ppm)	20	0.016	0.011	0.42	0.97	0.006
FID Scan Total Hydrocarbons as Fuel Oll (ppm	(A)	<2.0	<2.0	140	120	<2.0
FID Scan Total Hydrocarbons as Gasoline (ppm)	230	<0.50	<0.50	(B)	(B)	<0.50
Lead, as Pb (ppm)	38	12	17	14	23	13

(A) = Unable to quantify due to presence of gasoline

(B) = Unable to quantify due to presence of fuel oil

(C) = Increased detection limits due to high level of contamination

Appendix A

ļ



1931 West County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

KÉC.D	ĴŬŇ	5	1990

BRAIL .

LABORATORY ANALYSIS REPORT NO: 1131 PAGE 1 06/01/90 DATE COLLECTED: 05/03/90: 05/07/90 Twin Ports Testing DATE RECEIVED: 05/09/90 1301 North Third Street COLLECTED BY : CLIENT Superior, WI 54880 DELIVERED BY : CLIENT SAMPLE TYPE : SOIL Attn: Jack Granquist 34140 34150 34160 34170 SERCO SAMPLE NO: SS#5 SS#7 SAMPLE DESCRIPTION: SS#2 SS#6 91-90E Lester Golf ANALYSIS: _____ ____ _ _ _ _ _ _ _ _ _ <0.005 <0.005 <0.01(C) Benzene, mg/kg 3.3 0.007 <0.005 0.52 2.3 Ethylbenzene, mg/kg 8.3 <0.005 <0.005 <0.01(C) Toluene, mg/kg 20 0.016 0.011 0.42 Xylene, mg/kg <2.0 <2.0 140 FID Scan, mg/kg, as #2 fuel oil (A) 230 <0.50 <0.50 (B) FID Scan, mg/kg, as gasoline 12 17 14 Lead, mg/kg as Pb 38 SERCO SAMPLE NO: 34180 34190 SAMPLE DESCRIPTION: SS#16 SS#14 ANALYSIS: ____ <0.01(C) <0.005 Benzene, mg/kg 0.29 <0.005 Ethylbenzene, mg/kg <0.01(C) <0.005 Toluene, mg/kg 0.97 0.006 Xylene, mg/kg FID Scan, mg/kg, as #2 fuel oil 120 <2.0 (B) <0.50 FID Scan, mg/kg, as gasoline 23 13 Lead, mg/kg as Pb (A) Unable to quantify due to the presence of gasoline. (B) Unable to quantify due to the presence of fuel oil. (C) Increased detection limits due to high level of contamination. PCA04-1615



< means "not detected at this level". 1 mg = 1000 ug



1931 West County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

REC'D JUN 5 1990

PAGE 2

LABORATORY ANALYSIS REPORT NO: 1131 06/01/90

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

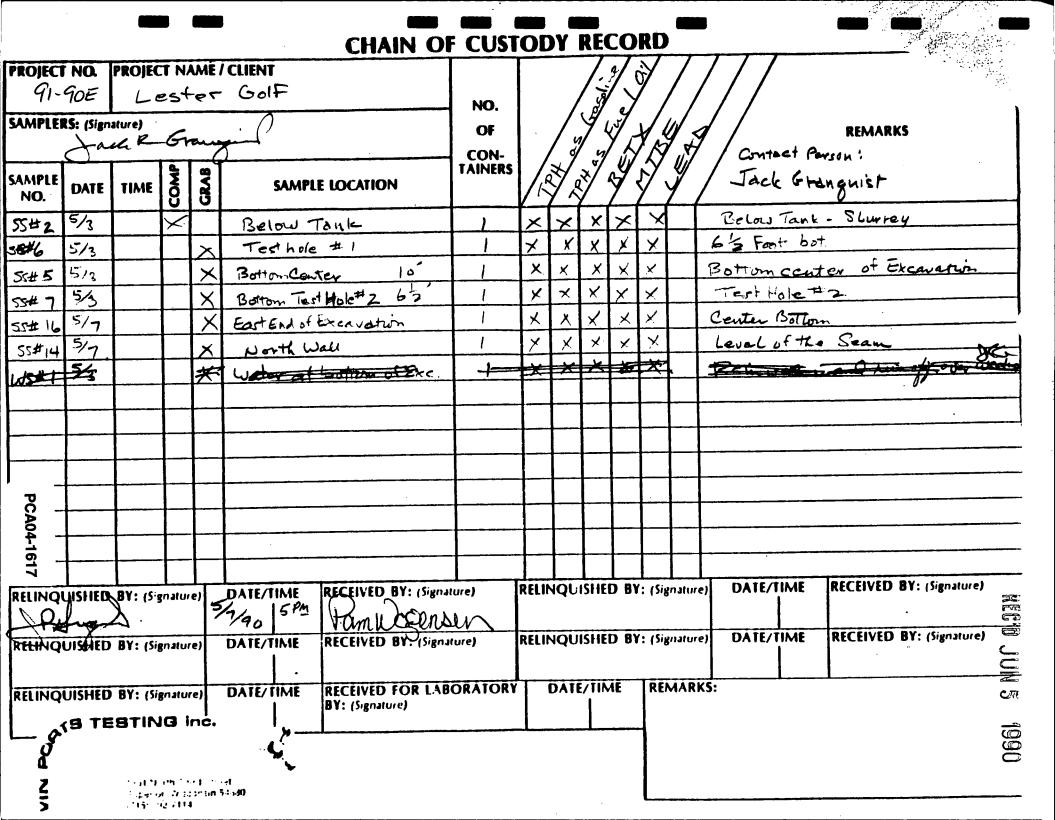
Report submitted by,

nderson ian

Diane J. Knderson Project Manager



< means "not detected at this level". 1 mg = 1000 ug.





1301 NORTH THIRD STREET ■ SUPERIOR, WISCONSIN 54880 - FAX # 715-392-7163 ■ (715) 392-7114

LABORATORY REPORT

Firm CITY OF DULUTH

Material UNKNOWN

Date Received 04/24/90

Sample Designation FLUID SAMPLE #1 TPT Lab No. 91-90E

Taken By TPT

Date Tested 04/30/90

DATA

FLASH POINT (°F): 76

PREPARED BY Rais L. Mass

DATE _04/30/90

AS MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

,

۰

•

• · .

• ..

.

•

:.

;

LAND APPLICATION APPROVAL--May 1990

Mr. Robert Troolin FITY OF Duluth Hall MN. 55802 Dear < 17r. Troolin >:

RE: Approval of Land Application of Petroleum Contaminated Soil Site: Site ID#: LEAK0000<

The application submitted by your consultant dated $\langle \underline{9-06} \rangle$, 1990, to land apply approximately $\langle \underline{396} \rangle$ cubic yards of petroleum contaminated soil is hereby approved by staff of the Minnesota Pollution Control Agency (MPCA). This approval is based upon the MPCA staff's understanding that the appropriate county and local officials have been notified and/or have given approval for the land application of this soil and is subject to the following additional conditions:

- 1. Stockpiled soils shall be protected from infiltration and runoff prior to land application.
- Soil shall be applied to land located at < 5+. Louis Founty, Fity OF Duluth, Nully OF SE 114 OF Section 6, TWP SON, Range 14 W
 Soils shall be spread to a thickness of no more than four inches and
- 3. Soils shall be spread to a thickness of no more than four inches and incorporated into the top six inches of native soil per MPCA document "Land Application of Petroleum Contaminated Soil: Single Application Sites" (April 25, 1990). Soils shall be disked once per month during the growing season.
- 4. The land-applied soil shall be sampled and reports shall be submitted in accordance with part III.C of the MPCA land application document until analyses indicate 10 parts per million total petroleum hydrocarbons or lower. The MPCA form entitled "Soil Monitoring Results for Land-Applied Petroleum Contaminated Soil" should be used for reporting.

We believe these actions will provide adequate treatment of petroleum contaminated soils. The MPCA reserves the right to require additional work if this is determined to be necessary to protect public health and the environment. This letter does not release any party from liability for this contamination. 219-723-4660

Please contact me at _____>, if you have any further questions.

Sincerely,

< Timethy A Musick > Regional Project Leader or Pullition Control Specialist Tanks and Spills Section Hazardous Waste Division

cc: (county and local officials, consultant, land owner; include addresses)

< <u>Ehris Zadak, Project Loader</u>, Tanks & Spills Section, Hazardous waste. <u>Aivision, MEA</u> John Jubala, Zoning Admin., St. Louis Founty Health Dept., 1001 East First Street, Duluth, MN., 55802-2242

PCA04-1664

Rick Hoglund, Twin Ports Tasting, INF., 1301 North Third Streat, Superior, Ulist, 54880

		APPLICATION To LAND APPLY PETROLEUM CONTAMINA	TED SOREC'D SEP 6 1990
		Minnesota Pollution Control Agency • Tanks and Spills Section April 25, 1990	
App]	lica	to the Minnesota Pollution Control Agency (MPCA) docu ation of Petroleum Contaminated Soil: Single Applica ic information on acceptable soil and site criteria.	ument "Land ation Sites" for
I.	BAC	CKGROUND INFORMATION	
	Α.	Tank owner/operator mailing address: B. Site contaminated	from which
		Contact: Mr. Bob Troolin Company name: Eity of Duluth Street/Box: 313 Eity Hall City, Zip: Duluth, Minnesota 55802 City,	originated: Lester Park Golf Course any name: Eity Duluth et: 1860 Luster River Road , Zip: Duluth, 57804 ty: ST. Louis
	C.		ultant (or other) aring this form: Tack
		Contact: Eliff Anderson Conta Street: Canty Rof #4/ Airport Rol. Compa City, Zip: Du/4th, Minnesota 55779 Stree Telephone: 218 /29-9433 City, <u>NW</u> 1/4 of <u>SE</u> 1/4 of Section <u>6</u> , Township <u>SON</u> , Range <u>14W</u> Township Name <u>Elfy of</u>	aring this form: act: Rick Hoglund/ Granyuist any name: Twin Ports Tuting et/Box: , Zip: Superior phone: 7/5-392-7/14 f Duluth
	F. G.	MPCA Site ID#: LEAKOOOO 2536 Volume of soil to be land applied (cubic yards): Projected date of application of soil: Have there been past waste disposal activities at 1 No Yes X, please explain. $T + 15 \alpha 7$	(396yds)? the proposed site? PEA multiple use site
II.	SI	ITE AND SOIL CHARACTERISTICS Son land ap	plication of patrolarin
	B. C. D.	Site slope (percent): Distance to surface water (feet or miles): Distance to nearest building or residence (feet): Depth to seasonal high water table (feet): Depth to field tile lines (feet): If bedrock exists at 8 feet or less, indicate depth	
	E. F.	Area of land to be used (square feet or acres): Spreading thickness (inches):	<u>*</u>
III.	. s	SOIL SAMPLING RESULTS	
	Α.	If soil nutrient tests were conducted, list the res	sults below:
		Sample Organic Extractable Number Matter, Percent Phosphorus, pp	n
		*	
		*	•
		*	PCA04-1665

* For site specific characteristics please see MPCA records

Application to Land Apply Petroleum Contaminated Soil Page 2 April 25, 1990

> If fertilizers will be applied, provide application rates: _____lbs. nitrogen/acre, _____lbs. P205/acre, _____lbs. sulfur/acre

B. Circle the type(s) of petroleum contamination: unleaded gas, regular gas, diesel fuel, No. 2 fuel oil, waste oil, other (please specify

List the appropriate soil sample analytical results from the excavated contaminated soil (refer to the MPCA document "Soil and Ground Water Analysis at Petroleum Release Sites"). If the petroleum was not gasoline or fuel oil attach a separate table.

Sample Number	THC as gas or FO ppm	Benzene ppm	Ethyl- benzene ppm	Toluene ppm	Xylene ppm	MTBE ppm	Lead ppm
55-2	230	3.3	2.3	8.3	20		38
55-16	120	BOL	0.29	BDL	0.97		23
	• • • • • • • • • • • • • • • • • • • 						
	· 			. <u></u>			
		<u> </u>					

NOTE: ATTACH COPIES OF LABORATORY RESULTS AND CHAIN OF CUSTODY FORMS

IV. FIGURES

Include the following figures:

- A. Copy of county soil survey map (if the county has been mapped) with copies of the interpretation tables or interpretation sheets.
 B. Site location map with exact application location marked (scale)
- B. Site location map with exact application location marked (scale should be approximately one inch = 50 feet)

Signature and Title of MPCA Staff Inspector (or other authorized inspector):

michael V	June	_ Date Inspected :	11-06-90
Signature and Titl	e of County Official:	······································	
Signature and Titl	e of City/Township Offic	cial:	
*****	******	*****	****
Mail to:	Minnesota Pollu Attention: (Proj Hazardous Waste		·
	Tanks and Spill: 520 Lafayette Ro St. Paul, Minne:	s Section Dad	PCA04-1666

TABLE 2

Summary of Soil Sample Analysis

Lester Park Golf Course 1860 Lester River Road Duluth, Minnesota 55804

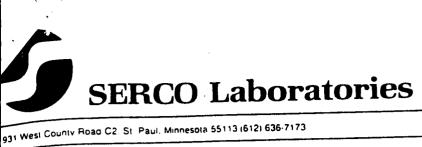
TPT #91-90E

Sample #	SS #2	SS #6	SS #5	SS #7	SS #16	SS #14
Location	Below tank	Bottom test hole #1	Bottom center of excav.	Bottom test hole #2	Bottom E of center of excav.	North wall W of center of excav.
Depth	7	6 1/2'	10'	6 1/2'	8'	
Benzene (ppm)	3.3	⊲0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Ethylbenzene (ppm)	2.3	0.007	<0.005	0.52	0.29	<0.005
Toluene (ppm)	8.3	<0.005	<0.005	<0.01 (C)	<0.01 (C)	<0.005
Xylene (ppm)	20	0.016	0.011	0.42	0.97	0.006
FID Scan Total Hydrocarbons as Fuel Oll (ppm	(A)	<2.0	<2.0	140	120	<2.0
FID Scan Total Hydrocarbons as Gasoline (ppm)	230	<0.50	<0.50	(B)	(B)	<0.50
Lead, as Pb (ppm)	38	12	17	14	23	13

(A) = Unable to quantify due to presence of gasoline

(B) = Unable to quantify due to presence of fuel oil

(C) = Increased detection limits due to high level of contamination



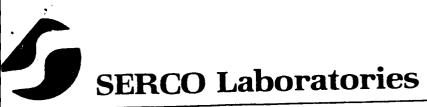
221

LABORATORY ANALYSIS RE 06/01/90	PORT NO:	1131	P	AGE 1
Twin Ports Testing 1301 North Third Street Superior, WI 54880	DATE REC COLLECTI DELIVERI	LLECTED: CEIVED: ED BY : ED BY : TYPE :	CLIENT CLIENT	05/07/90
Attn: Jack Granquist			`	
SERCO SAMPLE NO:	34140	34150	34160	34170
SAMPLE DESCRIPTION:	SS#2 91-90E Lester Golf	SS#6	SS#5	SS#7
ANALISIS: 	3.3			
Ethylbenzene, mg/kg Toluene, mg/kg		0.007 <0.005 0.016	<0.005	
Xylene, mg/kg FID Scan, mg/kg, as #2 fuel oil	(A)	<2.0		140
FID Scan, mg/kg, as gasoline Lead, mg/kg as Pb	230 38	<0.50 12	<0.50 17	(B) 14
SERCO SAMPLE NO:	34180	34190		
SAMPLE DESCRIPTION:	SS#16	55#14		
ANALYSIS:				
Benzene, mg/kg		> <0.005		
Ethylbenzene, mg/kg	0.29	<0.005		
Toluene, mg/kg) <0.005 0.006		
Xylene. mg/kg	0.97	<2.0		
FID Scan, mg/kg, as #2 fuel cil	120	\4. V		
	(B)	<0.50		
FlD Scan, mg/kg, as gasoline	23	13		
Lead, mg/kg as Pb				,
(A) Unable to quantify due to the pre (B) Unable to quantify due to the pre (C) Increased detection limits due to				.

RED JUN 5 1990

REC'D JUN 5 1990

PAGE 2



1931 West County Road C2. St. Paul. Minnesola 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 1131 06/01/90

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

nderson

Diane J. Anderson Project Manager



1 mg = 1000 ug.



LAND APPLICATION APPROVAL

November 14, 1990

Mr. Robert Troolin City of Duluth 313 City Hall Duluth, Minnesota 55802

Dear Mr. Troolin:

RE: Approval of Land Application of Petroleum Contaminated Soil Site: Site ID#: LEAK00002536

The application submitted by your consultant dated September 6, 1990, to land apply approximately 396 cubic yards of petroleum contaminated soil is hereby approved by staff of the Minnesota Pollution Control Agency (MPCA). This approval is based upon the MPCA staff's understanding that the appropriate county and local officials have been notified and/or have given approval for the land application of this soil and is subject to the following additional conditions:

- 1. Stockpiled soils shall be protected from infiltration and runoff prior to land application.
- 2. Soil shall be applied to land located in St. Louis County, City of Duluth, NW¹/₄ of SE¹/₄ of Section 6, Twp. 50N, Range 14W.
- 3. Soils shall be spread to a thickness of no more than four inches and incorporated into the top six inches of native soil per MPCA document "Land Application of Petroleum Contaminated Soil: Single Application Site" (April 25, 1990). Soils shall be disked once per month during the growing season.
- 4. The land-applied soil shall be sampled and reports shall be submitted in accordance with part III.C of the attached MPCA land application document until analyses indicate 10 parts per million total petroleum hydrocarbons or lower. The attached MPCA form entitled "Soil Monitoring Results for Land-Applied Petroleum Contaminated Soil" should be used for reporting.

Mr. Robert Troolin Duluth, Minnesota Page Two

We believe these actions will provide adequate treatment of petroleum contaminated soils. The MPCA reserves the right to require additional work if this is determined to be necessary to protect public health and the environment. This letter does not release any party from liability for this contamination.

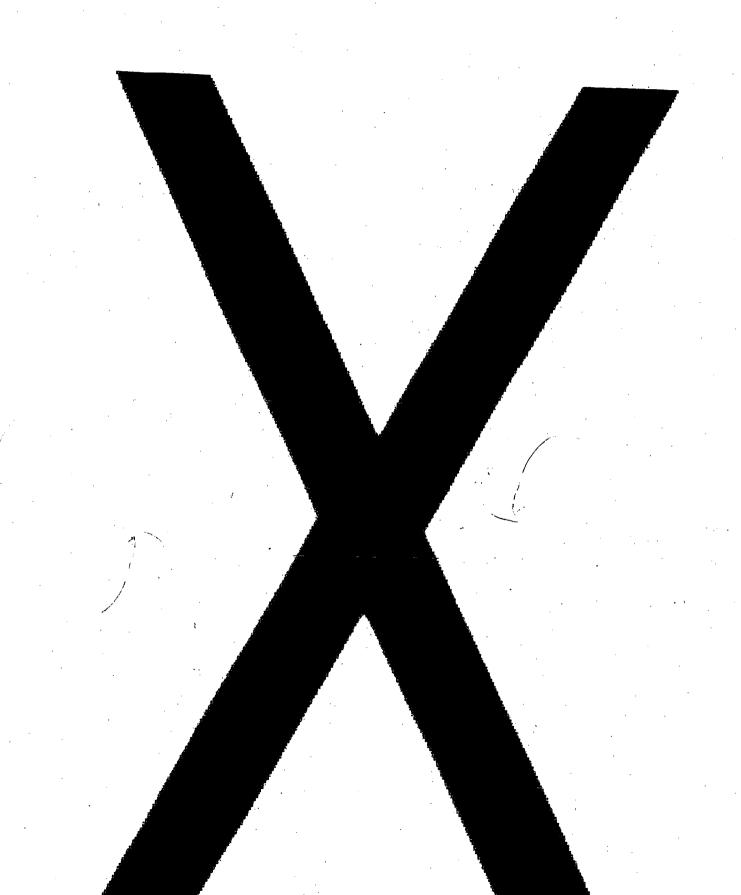
Please contact me at 218-723-4660, if you have any further questions.

Sincerely,

mothy a. Munich

Timothy A. Musick Regional Specialist Tanks and Spills Section Hazardous Waste Division

cc: Chris Zadak, Project Leader, Tanks & Spills Section, Hazardous Waste Division, MPCA, St. Paul John Jubala, Zoning Administrator, St. Louis County Health Department, 1001 East First Street, Duluth, MN 55802-2242 Rick Hoglund, Twin Ports Testing, Inc., 1301 North Third Street, Superior, Wisconsin 54880



•

.

1301 NORTH THIRD STREET SUPERIOR, WISCONSIN 5480CA - DULUTH FAX # 715-392-7163 = (715) 392-7114

. N A 🕈

REGEIVE SEP2 01990

DULUTH, MN.

SINCE 1972 STESTING inc. TPT# 300-90E September 7 MPC MPCA, Northeast Regional Office Duluth Government Service Center Rm 704 320 West Second Street Duluth, MN 55802

Attn: Michael V. Rose

_		
ſ	WG	
	ТМ	
	BS	-
	SL	
	RM	
	JC	
	VIMR	

Dear Mike:

This letter and data should provide you with the information you requested on September 6, 1990. Soil samples representative of land-spread soils are identified for each MPCA Site # in question. All representative samples are identified on the charts enclosed and also entered on the respective Application to Land Apply Petroleum Contaminated Soil forms.

Please feel free to contact us if further information is required regarding these reports.

Yours truly,

Jack Granquist **Environmental Scientist**

TPT Job # 283-89E

Site from which soil originated: Joint Facility Address: 59th Ave W and Grand Ave Duluth, MN MPCA Site #: LEAK00001113 Sample numbers representative of soils removed from the site: SS-24 SS-4 SS-10 SS-43 SS-36

Total yards removed: 1428

TPT Job# 91-90E

Site from which soil originated: Lester Park Golf Course Address: 1860 Lester River Road Duluth, MN MPCA Site #: LEAK00002536 Sample numbers representative of soils removed from the site: Representative samples SS-2 and SS-16

Total yards removed: 396

TPT Job# 84-90E

Site from which soil originated: Sewer Maintenance Toolhouse Address: 115 N 24th Ave W Duluth, MN MPCA Site #: LEAK00002943 Sample numbers representative of soils removed from the site: Representative Sample: S4

Total yards removed: 250

TPT Job # 71-90E

Site from which soil originated: Far West Toolhouse Address: 2407 Commonwealth Ave. Duluth, MN MPCA Site #: LEAK00003084 Sample numbers representative of soils removed from the site: SS-1 SS-2 SS-4 SS-6 SS-8

Total yards removed: 180

TPT Job # 86-90E

Site from which soil originated: Central Entrance Toolhouse Address: 103 E Central Entrance Duluth, MN MPCA Site #: LEAK00003084 Sample numbers representative of soils removed from the site: SS-3 SS-4 SS-10

Total yards removed: 952

TPT Job# 118-90E

Site from which soil originated: City Hall/Police Garage Address: 411 West First Street Duluth, MN MPCA Site #: LEAK00003084 Sample numbers representative of soils removed from the site: Total of 12 cu. yds of material were removed, but were not tested. Soils removes consisted of concrete and fill material from top of excavation. No contaminated soils were removed from this site. Contamination was

encountered below water table.

TPT Job # 76-90E

Site from which soil originated: Park and Recreation Toolhouse Address: 110 N 42nd Ave W Duluth, MN MPCA Site #: LEAK00002943 Sample numbers representative of soils removed from the site: Form was completed and turned in to MPCA on 7/27/90. SS-4 SS-5 SS-21 SS-23 Total yards removed: 152

TPT Job # 79-90E

Site from which soil originated: Fire Station 5 - City of Duluth Address: Duluth, MN

MPCA Site #: LEAK00002797

Sample numbers representative of soils removed from the site:

No contaminated soils were detected at this site.

Total yards removed: None

TPT Job # 82-90E

SECONDECT

· · · · ·

Site from which soil originated: Woodland Library Address: Duluth, MN MPCA Site #: LEAK00002923 Sample numbers representative of soils removed from the site: SS-5

Total yards removed: 2

۳ ۴ ۲ ş

. . -• . • • • • . t

.

•

•

* . **.**

• • • •

• • · ,

- DATE : June 29, 1998
- TO : Jim Joslyn
- FROM : Jonathan Smith
- PHONE: (218) 723-4958
- SUBJECT : <u>LEAK #2536</u> Lester Park Golf Course

: .-:

I reviewed the RI report prepared by RSI dated January 28,1998. RSI is recommending closure for the site. I concur with their recommendations. Since 1995 only one well, MW-2 has been "hot" and overall has exhibited a nice decreasing trend (despite the inconclusive biodeg data). The dowgradient sample points have also been clean. There are no receptors within 500 feet and the area is serviced by municipal water.

RECOMMENDATIONS: CLOSE!



FEB 0.2 1928

January 28, 1998

Mr. Jim Joslyn Minnesota Pollution Control Agency Tanks and Spills Response Division 520 Lafayette Road North St. Paul, MN 55155-4194

> RE: RI Report City of Duluth Lester Park Golf Course Leak #2536

WASTE DIVISION

FED E 1850 NIDCA, HAZAR CUS WASTE DIVISION

Dear Mr. Joslyn:

The City of Duluth Lester Park Golf Course site has been adequately delineated with respect to soil and ground water impacts. The source of the impact has been removed, and remaining petroleum hydrocarbons in the soil and ground water should continue to biodegrade. Due to the limited extent of the impact and the lack of receptors, human health does not appear to be at risk.

RSI recommends file closure with no additional work required at this site. Please contact us if you have and questions concerning the report.

Sincerely,

REMEDIATION SERVICES, INC.

Smike

GUY M. PARTCH Hydrogeologist

enclosures

Lester Park Doff Course
REPORT/SITE REVIEW: # 36 DATE: RI - RSI Jan 28, 1998
RESIDUAL SOIL CONTAMINATION
396 Nyds ³ removed Type and volume contaminated soil remaining
High concentration remaining 83 Bennyere in 5B-3 C 14-16'
Depth of contamination P10 readings > 10 poor whe not encountered below &'
VAPOR ISSUES
Vapor survey
HYDROGEOLOGY
Water table depth / shallow flow direction
Horizontal gradient / conductivity / plume velocity $\longrightarrow 31 \text{ m/yc}$ $10^{-5} - 10^{-3} \text{ Om/sec}$
Stratigraphy / hydrogeologic units
Resource aquifer(s)? //ez
Vertical gradient?
GROUND WATER CONTAMINATION
Contaminants of concern / concentrations / locations Sence 1995, MW-2 has been only "had" well

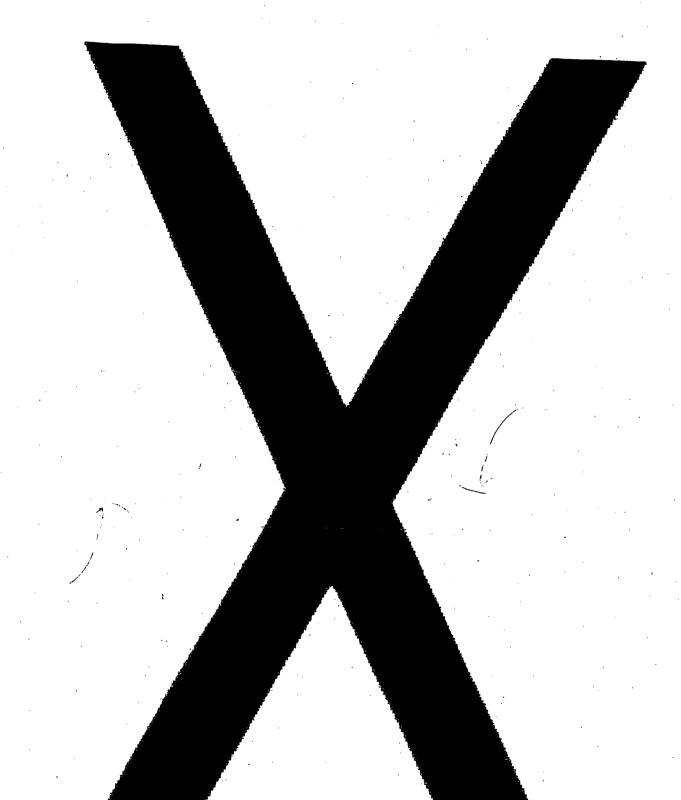
Extent

7

Contaminant and biodegradation trends MW-2 stows good I trend - Biodey parameters inconclusive
RECEPTORS minicipal coster is available
Wells no wells with 500 feed of site
Surface water / standards Jester Reven is with 1/4 mile of site

RECOMMENDATIONS / REQUESTS / COMMENTS:

lose



* . **.**

·) ·

,

.

	N NESOTA PETROLEUM TANK I EASE COMPENSATION BOARD			
	Application for Reimbursement Leak # 2536			
<u>PART I</u>	APPLICATION PROCESS C. Z'			
(Check One)	Check appropriate Phase and complete the information requested for the Phase checked (See Application Guide).			
	Phase 1. MPCA approval of Soil Corrective Action Plan (SCAP) a) Date of SCAP approval // //4 /90 (Attach Copy) b) Date SCAP was submitted to MPCA 9/6/90			
[]	Phase 2. <u>Submission of Soil Treatment Letter to MPCA</u> Date of Soil Treatment Letter/ (Attach copy)			
[]	Phase 3. MPCA approval of Comprehensive Corrective Action Plan (CCAP) a) Date of CCAP approval/ / (Attach copy) b) Date CCAP was submitted to MPCA/ /			
[]	Phase 4. Submission of CCAP Installation Letter to MPCA Date of CCAP Installation Letter/_/ (Attach copy)			
[]	Ongoing Expenses Closure Letter from MPCA (Attach Copy)			
<u>рарт п</u>	APPLICANT INFORMATION			
1.	"Responsible Person" [] "Volunteer" [] or "Non-Responsible Person" [] (check one) (see application guide)			
	Name: <u>City of Duluth</u>			
2.	Mailing Address: <u>313</u> CITY HALL DULWTH, MN Phone:()218-723-3373			
3.	Site ID: Leak # 00062536			
4.	The applicant is a: [] Corporation [] Partnership [] Individual [] Other $C_{1}T_{-}$			
5.	Applicant was the owner or operator of the tank from $6/1/75$ to $4/24/99$			
· 6.	Has applicant executed any Petrofund assignment agreements? yes no X			
	Name of assignee (attach copy of agreement)			

-

Page 1 of 5

TANK FACILIT PART III

Name of "Tank Facility" (see application guide) where the petroleum release occurred: 1.

LESTER PART GOLF COURSE - MAINT SHOP

Tank Facility address: 1860 LESTER RIVER ROAD 2. DULUTH, MM 55804

Contact Person at Tank Facility: BOB TROOGIN 3. Phone: () 218-723. 3373

Date when petroleum release was detected: 4/24/904.

What test was performed to initially establish that a release occurred?

- Date when petroleum release was reported to the MPCA: 4/24/90 PHONE CALL 5. TO DULUTS PEA OFFICE
- LETTER SENT S/2/90 To Dulut D PCB OFFIC Please complete the following information on the tanks at this Tank Facility. (see application 6. guide)

<u>Tank #</u>	<u>Capacity</u>	Petroleum <u>Product</u>	"X" if tank <u>removed</u>	Date of <u>Removal</u>
	350	CAS	×	4 24,90
2	265-	FOOND AT THE TIME	τ <u>γ</u>	4124190
	0	FEXCAUNT	IN OF	_/_/_

7. a. Which tanks were the source of the release at this tank facility? (see application guide)

BOTH TANKS

b. What was the cause of the release?

CORROSION

What date was the MPCA notified of the existence of the tanks as required by Minnesota Statute 8. 116.48? 10/8/86

9.	To the best of	knowledge, list all other persons be the applicant who were owners on	r
	operators of the	Lik during or after the petroleum release:	

NA Did any of the persons listed in question 9 incur corrective action costs related to this petroleum 10. release? yes____ no____ If yes, list name and address if known: _____ PART IV **ELIGIBLE COSTS** 1. The Eligible Cost Worksheets attached are for INVESTIGATION costs, CLEAN-UP costs, and CONSULTANT costs. These worksheets must be completed listing each corrective action for which you are requesting reimbursement. Invoices submitted with this application cover the period from $\frac{4}{2490}$ to $\frac{10}{991}$ 2. Are any of the costs listed in the Eligible Cost Worksheets in dispute? yes_____ no X 3. (see application guide) 4. a. Please state the total amount of contaminated soil which was excavated at this site (cubic yards or tons): 396 CUBIC VARDS b. What was the soil contamination concentration (total hydrocarbons) _____ppm? SOIL SAMPLE ARALYSIS RAIVED 120PPM TO 230 P.P.M. Has the applicant been eligible to recover cleanup costs arising from this petroleum release 5. under any insurance policy at any time since June 4, 1987? yes_____ no Y If yes, provide the following: Policy # Policy Limits Deductible Period Covered Insurance Company SELF INSURED \$<u>/0,013.13</u> X 90% 6. Total of all eligible costs as listed in the Eligible Cost Worksheets: \$ 9011.82 Insurance Reimbursement (Subtract) Total Reimbursement Request = \$9011.82 (See application guide) Page 3 of 5

7. At this time, do you anticipate incurring any Ongoing corrective action costs relative to the 'petroleum release' his Tank Facility? yes 🔽 no____

If yes, explain briefly what work will be done and an approximate cost of that work.

THE TEST FIRM HAS RECOMMENDED FURTHER INVESTIGATION TO DEFINE THE EXTENT OF Soilt GROUND UNTER CONTAIN ATIONS

PART V CONTRACTORS/CONSULTANTS

1. Complete the following for all contractors, subcontractors, consultants, engineering firms or others who performed corrective actions at this release site. (see application guide) Failure to provide this information for <u>ALL</u> persons who performed corrective action may result in an action to recover any reimbursement which may be paid. (Attach additional sheets if necessary.)

Name of individual or firm: Turn Perts TESTINE INC.
Mailing address: 1301 N. THIRD STREET, SUPERION, w/ 54880
Contact person: DACK GRANQUIST Phone: ()715-392-7163
Name of individual or firm: MID WAY SEARS SERVICE
Mailing address: 4720 GRAND AVE, DULUTH, MN 55807
Contact person: DAVE Phone: ()219-629-0345
Name of individual or firm: C.A. ANDERSON SAND & CRAVEL
Mailing address: 4597 OCD HIGHWAY 53 SAGINAN, MN 55779
Contact person: <u>CLIFF ANDERSON</u> Phone: ()218-729.9433

2. Describe below any relationship, financial or otherwise, between the applicant and any contractor who performed work at this site:

ALL WORK WAS BID, COMPLETED AND CONTRACTORS PRID

Page 4 of 5

PART VI **CERTIFICATION** (see application guide)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

"I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay these invoices within 30 days or receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or any portion of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement, plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty."

Signature of Applicant

Robert J. Hart/ Name (Please Print)

Α.

10/9/9/ Date

of Trooling ame 10/9/01 Name

Date

Every applicant must sign Part A. above. If applicant is a corporation or partnership, the following certification must also be made:

"I further certify that I am authorized to sign and submit this application on behalf of

Signature

Man Parsmul

Title (See Application Guide, Part

<u>(lobert J. Hart</u>) Name (Please Print)

Date

Please send this application and accompanying documents to:

Petroleum Tank Release Compensation Board Minnesota Department of Commerce **133 East Seventh Street** St. Paul, Minnesota 55101 (612) 297-4017

Page 5 of 5

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

A. SOIL BORINGS/MONITORING WELLS - ETC.

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
			-		
			-	1	
				TOTAL	,

B. LABORATORY TESTS AND ANALYSIS

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
FELD WORK	TWIN PORTS TESTIN	4/30/90			96 8.63
11 11	11 11 11	5/31/90			3093.50
LAB WORK +	11 11 11	6/19/90			661.75
LAB WORK + REPORT	1. 11 11	7/27/90			1457.25
				-	
				TOTAL	6181.13

.

<u>PART IV</u> ELIGIBLE COST WORKSHEET - INVESTIGA" N AND CLEAN-UP

- Descriptions must be specific as to work performed. * *
- Invoices must be submitted for each cost listed below. *
- Invoices must contain sufficient detail to verify costs and services entered below. *
 - Duplicate this form if additional worksheets are needed.

C. EXCAVATION

4

Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
CA. ANDERSON	5/90			323200
			TOTAL	-
	Firm Name	Firm Name or date	Firm Name or date Units	Firm Name or date Units Costs

SOIL DISPOSAL D.

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
					1
					<u> </u>
					+
					<u> </u>
			+	+	
			+		<u> </u>
	·····			 	
				L	
		·		TOTAL	

PART IV ELIGIBLE COS' 'ORKSHEET - INVESTIGATION' ND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

E. WATER TREATMENT

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
PUMPING + WATER	MIDUA-1SELET	4/24/90			400.00
PUMPING + WATER DISPOSAL	MIDUA-SELLET	5/3/90			400.00 200.00
				[
					-
,					
	·····			TOTAL	600.00

PF6/91

PCA04-1687

PART IV ELIGIBLE COM WORKSHEET - INVESTIGATI AND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

F. TRUCKING

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
					-
	· · · · · · · · · · · · · · · · · · ·				
		• · · · · · · · · · · · · · · · · · · ·	L	TOTAL	

G. EMERGENCY and TEMPORARY HAZARD CONTROL (see application guide)

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
				TOTAL	

PF6/91

PCA04-1688

PART IV ELIGIBLE COST ORKSHEET - INVESTIGATION O CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

H. SITE RESTORATION and CLOSURE

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
					-
	•			TOTAL	

I. OTHER CLEAN-UP or INVESTIGATION COSTS

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
	· · · · · · · · · · · · · · · · · · ·				
TOTAL					

PCA04-1689

PART IV ELIGIBLE CONT WORKSHEET - CONSULTAN' RVICES

* Description must be specific as to work performed.

5

- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional sheets are needed.
- J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or date	Total Units	Unit Costs	Sub- total
· · · · · · · · · · · · · · · · · · ·					
				<u> </u>	
	· · · · · · · · · · · · · · · · · · ·				
	· · ·				
		· · · · ·			
				,	
	· · · · ·				
				TOTAL	

PART IV ELIGIBLE COS VORKSHEET - INVESTIGATIO' ND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

K. MARK-UP

Description	Firm Name	General Contractor Invoice #	Sub- Contractor Invoice #	Mark Up %	Sub- Total
· · · · · · · · · · · · · · · · · · ·					
					-
	•				
				TOTAL	

L. OTHER CONSULTANT SERVICES (specify)

Description	Firm Name	Invoice # or date	Totai Units	Unit Costs	Sub- total
•					
				TOTAL	



DEPARTMENT OF ADMINISTRATION Administrative Services Division D(U,L(U,T,H) 313 City Hall (+) Duluth, Minnesota 55802-1195 218/723-3291

October 10, 1991

Robin Hanson Petroleum Tank Release Compensation Board Minnesota Department of Commerce 133 East Seventh Street St. Paul, Minnesota 55102

Dear Robin:

Enclosed are the applications for reimbursement for the below five sites. The City of Duluth has completed phase one. I have also sent Petroleum Contaminated Soil Corrective Action Worksheets to the Pollution Control Agency. I sent the worksheets to Chris Zadak.

The five sites include:

Leak #	Site Name	Dollar Amount
2400	Far West	\$ 9,742.84
2943	42nd Tool House	\$ 8,651.59
2619	Central Entrance	\$15,337.23
1005	2416 W. 9th Street	\$ 2,184.30

Thank you for your assistance.

Sincerely, - Er Stal

BOB TROOLIN. CSP Loss Control Manager

BT:blj:c

Encl.

, -

• • .

• .

.

. .

:.

;

•

PETROLEUM TANK RELEASE COMPLIANCE CHECKLIST
Site: Lester Park LEAR0000 2536
I. RELEASE NOTIFICATION
 Date release discovered: <u>4-24-90</u> Date release reported: <u>4-24-90</u> (according to T. Musich)
Specifics (optional):
II. TANK COMPLIANCE
USTs (Indicate "yes", "no", or "N/A"):
 Do federal or state UST requirements apply? <i>YM</i> (If "no", skip to III) Tank(s) registered? <i>YC</i> Date registered: <i>10-8-86</i> Leak detection: Tanks <i>No</i> Piping Corrosion protection: Tanks Piping Spill protection? Overfill prevention? Certified removal/installation contractor? (both applicable after 7/9/90) Prior removal potice given? <i>M</i> (applicable after 6/1/89)
<pre> Corrosion protection: Tanks Piping Spill protection? </pre>
MA <- Overfill prevention? • Certified removal/installation contractor? (both applicable
 • Prior removal notice given? • Character (applicable after 6/1/89)
ASTs (Indicate "yes", "no", or "N/A"):
• Tank(s) registered? Date registered: (applicable after 1/1/91)
• Secondary containment?
Specifics (optional):
III. DUE CARE
 Was RP an operator? (If "no" skip this section) Inventory control maintained?
If "due care" issues, specify:
IV. COOPERATION WITH MPCA
If "cooperation" issues, specify:
V. COST RECOVERY
Was state or federal money spent? Were these costs recovered?
(7/91)

£

,

,

, · • • .

.

•

۰.

.

.

· · · ·

.

:.

;



July 8, 1998

Mr Chuck Faegre City of Duluth 313 City Hall Duluth, Minnesota 55802

RE: Petroleum Tank Release Site File Closure Site: Lester Park Golf Course, 1860 Lester River Road, Duluth Site ID# LEAK00002536

Dear Mr. Faegre

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Tanks and Emergency Response Section (TERS) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the TERS staff has closed the release site file

Closure of the file means that the TERS staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the TERS staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information or changing regulatory requirements make additional work necessary If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn Stat ch 115C (Supp. 1997) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn Stat ch. 115B (1996), the Minnesota Superfund Law

The monitoring wells for this site should be abandoned in accordance with the Minnesota Department of Health Well Code, Chapter 4725. If you choose to keep the monitoring wells, the Minnesota Department of Health will continue to assess a maintenance fee for each well.

520 Lafayette Rd N, St Paul, MN 55155-4194, (612) 296-6300 (Voice), (612) 282-5332 (TTY) Regional Offices Duluth • Brainerd • Detroit Lakes • Marshall • Rochester Equal Opportunity Employer • Printed on recycled paper containing at least 20% fibers from paper recycled by consumers

4

Mr. Chuck Faegre Page 2 July 8, 1998

Because you performed the requested work, the state may reimburse you for a major portion of your costs The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release cleanup costs This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 612/297-1119 or 612/297-4203

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the TERS File Request Program at 612/297-8499 The MPCA fact sheet #3 35 *Leak/Spill and Underground Storage Tank File Request Form* (April 1997) must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment If you have any questions regarding this letter, please call me at 612/297-8607.

Sincerely,

Lisa Hersch

James Joslyn Project Manager Cleanup Unit II Tanks and Emergency Response Section

JAJ lh

cc. Jeffrey Cox, City Clerk, Duluth Duane Flynn, Fire Chief, Duluth Ted Troolin, St Louis County Solid Waste Officer Guy Partch, Remediation Service Inc, Duluth Minnesota Department of Commerce, Petrofund Staff

jot 5358



Y OF DUIUTH DEPARTMENT OF ADMINISTRATION Administrative Services Division DULUTH 313 City Hall · Duluth, Minnesota 55802-1195 218/723-3291

KS J



MPCA, HAZARDOUS WASTE DIVISION

Minnesota Pollution Control Agency Hazardous Waste Division Tanks and Spills Section Sixth Floor 520 Lafavette Road North St Paul, Minnesota 55155

Attn: Chris Zadak

Underground storage tank removal Re

Dear Chris:

May 2, 1990

On April 24, 1990, the City of Duluth removed two underground storage tanks from the Lester Park Golf Course at 1860 Lester River Road. As you will note on the Underground Storage Tank Notification form, we registered one tank We attempted to remove the first tank and found an abandoned second tank underneath the first tank We also found considerable contaminants. This site will also require additional excavation.

Enclosed is a copy of the Underground Storage Tank Notification form concerning this location. Thank you

0

Sincerely,

BOB TROOLIN, CSP Loss Control Manager

BT:blj:c

Encl

Copy to: Dave Mattson, Fire Marshal

\$	Minneso Solid and 1935 We Roseville	d Hazard Ist Count	ous W ly Roa	aste l d B2	Age	ncy 11011			-	_	NC	DTIF	FIC	ID S ATI(ons		FOI	RM	ank RE		5		58
Transaction Type	원 5)			f Instal	ation	if fede	eral fa	cility i	ive C	SA#	if in	dustr	т у 9	ive SI	C co	de			MAY	07	199(<u> </u>
A. X Notificatio	n		l 🗆	Bulk S	storag	e		E] 104	50510	У				X c	Gove	۱nme	nt WP	CA, H. /ASTE	AZA DIVI	RDOI SION	US 1
Change in Status				C	Agricultural Other (Specify)																	
Data Corre	ection			Utility				[] Re	sidei	ntial				GSA	/SIC						-
C Name of Insta Lester	llation Park Gol	f Cours	se	<u> </u>				P			Own of				n inc	וסוייול	ualo	r Ageno	:y}			
Street Address 1860 Les	ster Riv	er Road						M	ailing Pr			Ma	ina	gen	ent		Roo	m 202	2 Cı	Lty	Hall	 1
Duluth				Count St	•	ouis			•	lut	h					• -	tate MN		ZipC			
Zip Code 55804	Phone (218	e (include a b) 525	rea cod - 1400											act (d esk		erent	from	owner)				
Township Rang	1	on Quar NE		varter NW	Quar	ter C	luarte		wner 18 ⁾		e (ind 23				de)		merg 218	ency Pr 72	none (in 23°32		area o	code)
E Use code num	Ders listed or	reverse si	de for it	ems ma	arked	with *		-													-	
		2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0	5 1							5								_Gasi		2	- r	Sometry Lett
/	Monitoring Pis	16 Date of (ast	Test	1) Pari Melhod.			(gellons) Lost						-17	,	U A	æН	'ur	wrl	-			
0 0 1 0	0 0 0 0	00	0 0	N 4	0	00	0	00														
			_																			
									G					perju ed is				of my k	nowled	gelo	ertify	that th
										nted	Name	9			-			Title	e Direc	tor		
			-+						_						V.	/	n n	Pat			80	
-00410-01 (7/8	<u> </u>				<u> </u>	<u> </u>			≁			-	\sim	. /	1000		// 4	<u> </u>		7		<u> </u>

CHECK ONE		d tank move tank ange tank 1nfo ange owner ange add, phone aer
FACILITY INF TANK LOCATION (SITE ADDRESS) NAME: LESTER PARK GOLF COURSE STREET: 1860 LESTER RIVER RD. CITY DULUTH MN ZIP 55804 COUNTY ST. LOUIS PHONE (218) 525-3018 CONTACT PERSON GLEN OLIVER	TANK OWNER/OPERATOR (M NAME: CITY OF DULI STREET: 330 CITY HA CITY DULITH, MN	UTH NLC 55802
PLEASE CHECK THE TERM THAT BEST D SERVICE STATION/BULK FACILITY (34) CHEMICAL STORAGE (35) NDUSTRY/MANUFACTURING (19) AUTO CARE/AUTO PARTS (44) VEHICLE/TRAILER DEALER/CARRENTAL (2) TRANSPORTATION (37) RAILROAD (47) UTILITY (39) CONSTRUCTION (9) RESIDENTIAL (8) FAMILY FARM (3) GOVERNMENT/CITY (12) GOVERNMENT/COUNTY (13) GOVERNMENT/FEDERAL (14) GOVERNMENT/FEDERAL (14) GOVERNMENT/INDIAN (16) OFFICE/MALL/PARKINGLOT (40) LOADING RACK (FOR TRANSFERS)? Y N Y PAVEE	 FOOD PROCESSING (49) AGRICULTURAL (1) SCHOOL/UNIVERSITY/VOTECH (10) ENTERTAINMENT/RADIO/TV/NEWSP HOSPITAL/MEDICAL CENTER/ NURSING HOME/CHILDREN (17) LANDFILL/RUBBISH (20) WASTEWATER/WATER TREATMENT (18) MARINA/RESORT/CAMPGROUND/BA WASTE OIL STORAGE/RECYCLING (3) RETAIL STORE (31) BANK/FINANCE/BROKER/INSURANC CHURCH/CEMETARY/SOCIAL SERVI PIPELINE TERMINAL (48) REFINERY (50) ✓ OTHER (describe) 	CES (43)

IF MORE THAN 10 TANKS ARE AT THIS SITE, PHOTOCOPY THE BACK SIDE OF THIS FORM PRIOR TO COMPLETION AND INCLUDE AS ADDITIONAL TANK INFORMATION

IF THERE ARE ANY CHANGES TO THE REPORTED INFORMATION, THE MPCA MUST BE NOTIFIED OF THE CHANGE IN STATUS WITHIN 30 DAYS OF THE CHANGE. YOU MAY USE THIS FORM BY INDICATING IN THE UPPER LEFT CORNER THAT IT IS UPDATED INFORMATION

	MPCA Use	
Site ID	#: <u>535 0</u>	
Owner	ID #:	

Thus document is available in other formats, including Braille, large print and audio tape TTY (612) 282-5332 or 1-800-657-3864 (V/TTY)



MINNESOTA POLLUTION CONTROL AGENCY Return completed form to Aboveground Tank Program Tanks and Spills Section Hazardous Wast. Minnesota Pollution Control Above \$20 Lafayette Road St Paul, Minnesota 55155

PQ-00586-01 AUGUST 1994

Printed on recycled paper containing at least 10% fibers from paper recycled by consumers

COMPLETE ALL ITEMS FOR EACH TANK ON SITE (see explanations below)

TANK STORED PRODUCT CAPACITY (FIREPORT TANK OF FAR STATUS AGE DATE TANK DIKE TANK RASE PIPE PIPE 1 GASOLIAE 500 ICOO ACT 9/15/44 9/15/44 (MATERIAL BOTTOM SIDe Industrie Adv														
2 DIESEL 500 500 ACT 9/15/94 (M) (Du) MONE NONE NA 3 4 1	T/	ANK	STORED PRODUC F	OF	PER	STATUS	OF	INSTALL/				(indicate if tank	MAT-	LOC-
2 DIESEL 500 500 ACT 9/15/94 <td></td> <td>1</td> <td>GASOLINE</td> <td>500</td> <td>1000</td> <td>ACT</td> <td>9/15/94</td> <td>9/15/94</td> <td>(m) (DW)</td> <td>NONE</td> <td>NONE</td> <td>CEMENT</td> <td>NONE</td> <td>NA</td>		1	GASOLINE	500	1000	ACT	9/15/94	9/15/94	(m) (DW)	NONE	NONE	CEMENT	NONE	NA
3		2	DIESEL	500	500	ACT	9/15/94	9/15/94	(M)(DW)	NONE	NONE		NONE	NA
5		3												
6 7		4	,, <u></u>			<u> </u>								
7		5	<u></u>											
8		6												
9 10 TANK# USENUMBERGIVEN, UNLESSYDULIAN EDITERIENT NUMBERINGSYSTEM STOREDPRODUCT LIST SUBSTANCESSTOREDGE G FIELOUL2, GASOLINE) CAPACITY MANIMETANCESSTOREDGE G FIELOUS, GASOLINE) ACT(FORACITYE) INFORTEMPORARILATION OF FRODUCTE AND FERNONTH STATUS ACT(FORACITYE) CLOSED (FORF)ERMINISTINOUTOFSERVICE) REMOVED AGEOFTANK USEAPTRONIMATED VIELFUNKNOW F G LL-GASOLIPSIC TOTES CLOSED (FORF)ERMINISTINOUTOFSERVICE) REMOVED AGEOFTANK USEAPTRONIMATEDIVENOW F G LL-GASORIEMINERCEDFLASTIES CLOSED (FORF)ERMINISTINOUTOFSERVICE) REMOVED DATEINSTALL/REAL (TREPTHERGLASSREINFORCEDFLASTIES, (CCONCIDETE (DW) DOUULEW ALLED (O) OFHER TANK MATERIAN NDMETAL (TREPTHERGLASSREINFORCEDFLASTIE ON CONCIDER (DW) DO		7												
10 TANK# USENUMPERGYENULLISSYQUITAVEDITEREINTNUMBERGYSTEM IPSOLISTYQURNUMBERTOTHELEFTOFTHENUMBERGIVEN STOREDPRODUCT LINT SUBSTANCESSTORED(E G TUELOLIZ,GASOLINE) CAPACITY MANDUMTANKCAPACITYING VLONS TIROUGHEUT APPRONIMATENUMBEROFGALLON SOFPRODUCTEASSING HIROUGHEACH FANK PERMONTH STATUS ACT(FORACTIVE) INFORMATENUMBEROFGALLON SOFPRODUCTEASSING HIROUGHEACH FANK PERMONTH STATUS ACT(FORACTIVE) INFORMATENTINE CLOSED@FORPERMINENTLYOUTOFSERVICE) REMOVED INFORMATENTINE AGEOFTANK USEAPPROXIMATEDATEHONNOWN E G USEAPPROXIMATEDATEHONNOWN E G 1-480 R1986 DATEINSTALLARENOVE INSTALLOVE - TANK WSPUTINTOSERVICE AFTHESINE (CONCRETE TANKMATERIAL (Dymetral, (RP)THBLEGLASSRUTTORCEDPLASTIC, (CONCRETE (DW)DOURLEWALLED DIKEBOTTOMINDE BLOCK CONCRETE (DW)DOURLEWALLED (O) OTHER DIKEBOTTOMINDE BLOCK CONCRETE (LAY STATHENCLINER DOUBLEWALLED (D) OTHER DIKEBOTTOMINDE BLOCK CONCRETE (DW)DOURLEWALLED EARTH NONE OTHER TANKBANE WHATTHEATANISTHINGON EV ONGROUND ONSUPPORTS ON CEMENT ON LINER		8												
TANK# USENUMBERGIVENUMLESYOULAY EDITERTINUMBERINGSYSTEM IPSOLISTYOURNUMBERIOTHELEFTOF THENUMBERGIVEN STOREDPRODUCT LIST SUBSTANCESSTORED(E G TUELOLLA, GASOLINE) CAPACITY CAPACITY MANNUM FANCEASTORED(E G TUELOLLA, GASOLINE) CAPACITY THROKEBPUT APPRONINTENUMBERGEALLONSOFRODIC CTEASSING FUROUGHEACH FANKPERMONTH STATUS ACT(FORACTIVE) IN(FOR TENPORABLININACTIVE) CLOSED(FORPERMANENTLYOUTOFSERVICE) REMOVED AGEOFTANK USEAPPRONINATEDATED UNKNOWN E G 1-1-68 OR 1968 CDONOFPUT DATEINFEARS-EG 40 YEARSOLD) DATEINSTALLAREMOVE INSTALLADATE. TANKWASPENTINOSERVICE AT HISSITE(OFTENTHERSMEDATEASAGE OF FANK) REMOVED ATE - TANKWASREMOVED FRONTHESITE TANKMATERIALS ObjMETAL (IRP)TIBLERGLASSRELENFORCEDPLANNEC (G) CONCRETE (DW)DOUBLEWALLED (O) OTHER DIKEBOTTONINDE BLOCK CONCRETE CLAY SINTIBERCLASSRELENFORCEDPLANNEC (G) CONCRETE (DW)DUBLEWALLED (O) OTHER DIKEBOTTONINDE BLOCK CONCRETE CLAY SINTIBERCLASSRE (G) CONCRETE (DW)DUBLEWALLED (D) OTHER DIKEBOTTONINDE BLOCK CONCRETE CLAY SINTIBERCLASSRE (G) CONCRETE (DW)DUBLEWALLED (D) OTHER DIKEBO	_	9												
STOREDPRODUCT LIST SUBSTANCESSTORED (# G 1 UEL OIL 2, GASOLINE) CAPACITY MAXINUM FANK CAPACITYING ALLONS THROUGHPUT APPROXIMATED UNBEROFGALLONSOFPRODUCTEASSING FIROUGHEACH FANSPERMONTH STATUS ACT(FORACTIVE) IN(FORTEMPORARILYINACTIVE) CLOSED (FORPLERINSETLYOUTOFSERVICE) REMOVED AGEOFFANK LSEAPPROXIMATED UNBEROFGALLONSOFPRODUCTEASSING FIROUGHEACH FANSPERMONENTILSUTOFSERVICE) REMOVED REMOVED AGEOFFANK LSEAPPROXIMATED FEIFUNKANOW E G 1-4800 R DOG CLOSED (FORPLERINSETINUCTOFSERVICE) REMOVED DATEINSTALLARMOVE INSTALLOATE-TANKWASPENDITINFOSERVICE VITHINSTITE OFFENTILESANCE DATES AGEOFFANK). REMOVEDATE-TANKWASREMOVEDFROMTHESITE TANKMATERIAL (D)METAL (IRP)FIBERGLASSREENFORCEDPLASTIC (C)CONCRÉTE (DW)DOUDLEWALLED (O)OTHER DEKEBOTTONINDE BLOCK CONCIGATE CLAY SINTHELICLINER DOUBLEWALLED EARTH NONE OTHER TANKBASE WILLT HIETASKISSHTINGON EX ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLEWALLED EARTH NONE OTHER PHEMATHERIN STEELARON COPFIR IRP GALVANIZID NONE OTHER PHEMATHERIN MALTHETASKISSHTINGON NA(NOTAPPHICABLE)<		10												
CAPACITY MAXIMUM FARK CAPACITY ING ALLONS THROUGHPUT APPROXIMATED UNDEROFGALLONSOF PRODUCT EASSING FIROUGHEACH FANAPERMONTH STATUS ACT (FOR ACTIVE) IN (FOR TEMPORARIIATINACTIVE) CLOSED (FOR PLEMANENTLAUTOFSERVICE) REMOVED AGEOF FANK USE APPROXIMATED VIEW UNKNOWN E.G. 1-1-68 OR 1064 (DONOT PUT DATE INVEAUS-EG. 40 YEARSOLD) DATEINSTALLAREMOVE INSTALLED ATE-TANK WASPEDITIVIOSERVICE AT HUSSIFE (OPTENTILESAME DATEASAGE OF FANK). REMOVED ATE - TANK WASREMOVED FROM THE STEE TANK MATERIALS (D)METAL (RP) FIBERGLASSREENI ORCED PLASTIC (COCONCRETE (DW) DOUBLEW ALLED (O) OTHER DIKEBOTTOMPHOR BLOCK CONCIRCTE CLONE (CONCIRCTE (DW) DOUBLEW ALLED (O) OTHER TANK MATERIAL NOMETAL (TRP) FIBERGLASSREENI ORCED PLASTIC (COCONCRETE (DW) DOUBLEW ALLED (O) OTHER DIKEBOTTOMPHOR BLOCK CONCIRCTE (D) NOUNE PARTINE ODUBLEWAILED EARTH NONE OTHER TANK BASE WHAT FIBERALISSIFTINGON FA ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLEWORT ON INDOORS OTHER PIPELOCATION ABOVEGROUND LONDERGROUND NA(NOTAPPLICABLE) OTHER PIPELOCATION ABOVEGROUND LONDERGROUND NA(NOTAPPLIC		TAN	USENUM	BERGIVEN,UNLI	SSYOUHAVEDI	FTERENTNU	MBERINGSY	STEM	IF\$0,LIST	YOURNUMBE	RIOTHELEF	TOF THE NUMBER O	JIVEN	
THROUGHPUT APPROVINIATENUMBEROFGALLONSOFPRODUCTFASSING FHROUGHEACH F VIN PERMONTH STATUS ACT(FORACTIVE) INFORTEMPORABIL/VINACTIVE) CLOSED(FORPERMANENTL/UUTOFSERVICE) REMOVED AGEOFTANK USEAPPROVIMATED/FEH/UNNOWN E.G. 1-1-68 OR 1966 DONOFPUT DATEINYEARS-E.G. 40YEARSOLD) DATEINSTALLAREMOVE INSTALL DATE-TANKWASPENTIONSERVICE AT HIDSUFE/OPTENTIESAME DATEASAGE OF FANK). REMOVED ATE - TANKWASPEMOVED FROMTHESHE TANKINGTERLANS (D)METAL (IPP)FIBERGLASSREDFORCED PLASTIC (D)CONCRETE (DW)DOUBLEW ALLED (O) OFHER DIKEBOTTOMINDE BLOCK CONCRETE (LAY SYNTHETICLINER DOUBLEWALLED EARTH NONE OTHER TANKBASE WHAT FHIETANKISSTETINGON EX ON GROUND ON SUPPORTS ON ELMENT ON LINER DOUBLEWALLED EARTH NONE OTHER PIPEMATERUL STEEL/RON COPETR IRP GALVANZED NONE OTHER PIPEMATERUL STEEL/RON COPETR IRP GALVANZED NONE OTHER PIPEMATERUL STEEL/RON COPETR IRP GALVANZED NONE OTHER PIPEMATERUL STEEL/RON COPETR IRP GALVANZE		STOR	EDPRODUCT LIST SUB	STANCESSTORE	D(E G FUE).OH	2,GASOLIN	E)							
STATUS ACT (FOR ACTIVE) IN (FOR TEMPORARILY INACTIVE) CLOSED (FOR PERMANENTLY OUTOFSERVICE) REMOVED AGEOFTANK USEAPPROXIMATED ATELPTINKNOWN E.G. 1-1-68 OR 1968 (DO NOT PUT DATE IN YEARS - E.G. 40 YEARSOLD) DATEINSTALLAREMOVE INSTALL DATE. TANK W SPUT IN FOSEWICE AT FILDS STEE (OPTEN THESAME DATE AS AGE OF FANK). REMOVED ATE - TANK WAS REMOVED FROM THESH FE TANK MATERIALS (D) METAL (IRP) FIDERGLASS RULENFORCED PLASTIC (C) CONCRETE (DW) DOUBLEWALLED (O) OTHER DIKEBOTTOMINDE BLOCK CONCRETE (DW) DOUBLEWALLED EARTH NONE OTHER TANK MATERIALS (DIM FILE TANKINSTITUS ON EXAMPLE AT INFORCED PLASTIC (C) CONCRETE (DW) DOUBLEWALLED (O) OTHER DIKEBOTTOMINDE BLOCK CONCRETE (DAY SITTHETICLINER DOUBLEWALLED EARTH NONE OTHER TANK MATERIAL STEELARON EXAMPTERIZATION EXAMPTERIZATION ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOTTON INDOORS OTHER PIPELOCATION ABOVEGROUND UNDERGROUND NA(NOTAPPLICABLE) PIPELOCATION ABOVEGROUND NA(NOTAPPLICABLE) PLEASE LEAGE PLEASE CONCOLATION NADOVEGROUND NA(NOTAP		САРА	CTIY MAAIMU	MTANKCAPACU	TYINGALLONS									
AGEOFTANK USEAPPRONIMATEDATEIFUNKNOWN E.G. 1-1-68 OR 1968 (DONOTPUT DATE IN YEARS-E.G. 40 YEARSOLD) DATEINSTALL/REMOVE INSTALL DATE-TANKWASPUT INFOSERVICE AT HISSIFE (OPTENTIFESAME DATEASAGE OF TANK), REMOVED ATE-TANKWASREMOVED FROMTHESHE TANK MATERIALS (NJ)METAL (IRP) FIBERG-LASSREINFORCED PLASTIC (C)CONCRETE (DW) DOUBLEWALLED (O) OFHER DIKEBOTTONYSIDE BLOCK CONCRETE (DW) DOUBLEWALLED EARTH NONE OTHER ************************************		HRC	UGIPUT APPROXI	MATENUMBER	OFGALLONSOF	PRODUCTE	ASSING FHRO	UGHEACHTM	NKPERMONTH					
AGEOFTANK USEAPPROXIMATEDATEDURATIONS EG 1-1-68 OR 1968 (DO NOTPUTDATEINYEARS-EG 40YEARSOLD) DATEINSTALLARMOVE INSTALLAVIETANKWASPUTINFOSERVICE AT HUBSUFE (OFTENTHESAME DATEASAGE OF FANK), REMOVEDATE -TANKWASREMOVED FROMTHESHE TANKWASTERIALS (D) METAL (TRP) FIBERGLASSREINFORCED PLASTIC (G) CONCRETE (DV) DOUBLEWALLED (O) OFHER TANK MATERIALS (D) METAL (TRP) FIBERGLASSREINFORCED PLASTIC (G) CONCRETE (DV) DOUBLEWALLED (O) OFHER DIKEBOTTOM/SIDE BLOCK CONCRETE (DV) DOUBLEWALLED EARTH NONE OTHER ". TANK BANE WHAT FIRETANKISSIFTINGON EX ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOTTON INDOORS OTHER ". TANK BANE WHAT FIRETANKISSIFTINGON EX ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOTTON INDOORS OTHER ". TANK BANE WHAT FIRETANKISSIFTINGON EX ON GROUND NA(NOTAPPLICABLE) PIPENATIARUL STEELARON COPPL R IRP GALVANIZED NONE OTHER "PIPELOCATION ABOVEGROUND UNDLREROUND NA(NOTAPPLICABLE) PICASE keep a copy of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms I believe that the submitte		STAT	US ACT(FOI	RACTIVE)	IN (FOR TEM	IPORARILYI	NACTIVE	с л	OSED(FORPLRM	ANENTLYOUT	OF SERVICE)	REMOVI	ש	
DATEINSTALL DATE. TANK WASPUT INFOSERVICE AFFILISSIFE (OPTENTILESAME DATE ASAGE OF FANK) REMOVED ATE - TANK WASREMOVED FROM THE SHE TANK MATERIALS (MJMETAL (TRP) FIBERG LASSRELNFORCED PLASTIC (SCONCRETE (DW) DOUBLEWALLED (O) OTHER DIKEBOTTOMSIDE BLOCK CONCRETE CLAY SYNTHETICLINER DOUBLEWALLED EARTH NONE OTHER TANK BANE WHAT THE TANK ISSIFTINGON EX ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOFFON INDOORS OTHER PIPEMATERIAL STEELARON COPPER IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON COPPER IRP GALVANIZED NONE OTHER PIPELOCATION ABOVEGROUND UNDERGROUND NA(NOT APPLICABLE) PIPELOCATION ABOVEGROUND UNDERGROUND NA(NOT APPLICABLE) PIPELOCATION DECOMPOSE of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms L certify under penalty of two that I have personally examined and an familiar with the information submitted on this and all attached documents L believe that the submitted information is true, accurate and complete Print name and official title of owner or a ner's representative MICHAEL NETZEL GOLF MANAGER		AGE	DETANK USEAPPR	ONIMATEDATE	IFUNKNOWN E	G 1-1-68 C	R 1968		DATEINYEARS	EG 40YEAR	SOLD)			
TANKMATERIALS (M)METAL (TRP)FIBERGLASSREENFORCEDPLASTIC (G)CONCRÉTE (DW) DOUBLEWALLED (O) OFHER DIKEBOTTOMISTIDE BLOCK CONCRÈTE CLAV SYNTHETICLINER DOUBLEWALLED EARTH NONE OTHER TANKBANE WHAT FIRETANKISSIFTINGON EN ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOFFON INDOORS OTHER PIPENATIRIAL STEEL/RON COPPTR IRP GALVANIZED NONE OTHER PIPELOCATION ABOVEGROUND UNDERGROUND NA (NOTAPPLICABLE) PIPELOCATION ABOVEGROUND UNDERGROUND NA (NOTAPPLICABLE) I certify under penalty of law that I have personally examined and am familiar with the information submitted on this and all attached documents I believe that the submitted information is true, accurate and complete Print name and official title of owner or a mer's representative MICHAEL NETZEL GOLE MANAGEER		DATI						NTHESAMED	DATEASAGE OF F	ANK) REMOV	EDATE - TAI	NKWASREMOVED	FROMTHESI	ГЕ
DIKEBOTTOMENDE BLOCK CONCRETE CLAY STRITEFICLINER DOUBLEWAILED EARTH NONE OTHER TANKBANE WHAT FHIETANKISSIFTINGON EX ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOFTON INDOORS OTHER PIPEMATERIAL STEELARON COPPLR IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON COPPLR IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON COPPLR IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON LOPPLR IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON LOPPLR IRP GALVANIZED NONE OTHER PIPEMATERIAL STEELARON UNDERGROUND UNDERGROUND NA(NOTAPPLICABLE) Please keep a copy of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms I behave that the submitted information submitted on this and all attached documents I behave that the submitted information is true, accurate and complete Print name and official title of owner or aner's representative MICHAEL <t< td=""><td></td><td>TANI</td><td>MATERIALS (NDMED</td><td>a (TRP)</td><td>FIBERGLASSRI</td><td>INFORCEDI</td><td>PLASTIC</td><td>COCONCRE</td><td>re (</td><td>DW) DOUBLE</td><td>WALLED</td><td>(O) O [H</td><td>ER</td><td></td></t<>		TANI	MATERIALS (NDMED	a (TRP)	FIBERGLASSRI	INFORCEDI	PLASTIC	COCONCRE	re (DW) DOUBLE	WALLED	(O) O [H	ER	
TANKBASE WHATTHETANKISSITINGON EN ON GROUND ON SUPPORTS ON CEMENT ON LINER DOUBLE BOFTON INDOORS OTHER PIPEMATERIAL STEEL/IRON COPPLR IRP GALVAN/ZED NONE OTHER PIPEMATERIAL STEEL/IRON COPPLR IRP GALVAN/ZED NONE OTHER PIPEMATERIAL STEEL/IRON ABOVEGROUND UNDLAGROUND NA(NOTAPPLICABLE) OTHER							さご							R
PIPEMATERIAL STEELARON COPPER IRP GALVANZED NONE OTHER PIPELOCATION ABOVEGROUND UNDERGROUND NA(NOTAPPLICABLE) Please keep a copy of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms I certify under penalty of live that I have personally examined and am familiar with the information submitted on this and all attached documents I believe that the submitted information is true, accurate and complete Print name and official title of owner or marks representative MICHAEL NETZEL GOLE MANAGEER							1		È.					
PIPELOCATION ABOVEGROUND UNDERGROUND NA(NOTAPPLICABLE) Please keep a copy of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms I certify under penalty of live that I have personally examined and am familiar with the information submitted on this and all attached documents. I believe that the submitted information is true, accurate and complete. Print name and official title of owner or marks representative MICHAEL NETZEL GOLF MANAGER	-											ION INDOORS	OTHER	
Please keep a copy of this form for your records. When changes are made to the current information, please contact the MPCA at (612) 297-8618 for additional notification forms L certify under penalty of live that I have personally examined and am familiar with the information submitted on this and all attached documents L believe that the submitted information is true, accurate and complete Print name and official title of owner or miner's representative MICHAEL NETZEL GOLF MANAGER ANAGER		PIPE	MATERIAL STEELAR	ON	COPPI R	IRP				NONE	OTHER		•	
I certify under penalty of live that I have personally examined and am familiar with the information submitted on this and all attached documents I certify under penalty of live that I have personally examined and am familiar with the information submitted on this and all attached documents I believe that the submitted information is true, accurate and complete Print name and official title of owner or amer's representative MICHAEL NETZEL GOLF MANAGER ANAGER	I.	PIPE	LOCATION ABOVEG				•							
Print name and official title of owner or mer's representative MICHAEL NETZEL GOLF MANAGER	-													
Print name and official title of owner or aner's representative MICHAEL NETZEL GOLF MANAGER	·	Γ	L certify under	penalty of law							this and all a	ftached documents		
owner or oner's representative MICHAEL NETZEL GOLF MANAGER	×		Print name and official title	of 🗤	n				. بعو	•	. ^			•
Owner/re sentative signature Michael Metzal Date 10-3-94					LICHAE	<u> </u>	VETZE	<u>ا با ع</u>	(Ca	olf 1	VIANA	GER		+
			Dwner/re sentative signa	ture <u>Y</u>	Jichas	I n-	etzal			D	ate <u>l</u>	0-3-94	1	r

ı ⁷ -				-								•						-		
tit	Minnesota Solid and F 1935 West Roseville, f	Hazarde Count	ous Wa Iy Road	aste I d B2		ر		:5	-	NO N	ίτς	IC/	ATIC	DN F	OR	М	NK side)	- EPA	Use A Use	
Transaction Type(s)		Type of	f Instal	lation if:	federal	icility	give	GSA=	 ⊧ifin	idusti	ny gi	ve SI	Coo	le			I	<u> </u>	
A. Notification Change in Si	- tatus		B 	Bulk S	Storage ce Station	MPC/	a, s I <mark>as</mark> t		gricul	HA X	L.		ם - 1	⊠ G	overr (Spe	ty.	t -] (cul.	کرم	2
Data Correct	tion			Utility				C F	Reside	intial			ī	GSA/	SIC					-
C Name of Installation D Name of Owner (Corporation Individual or Agency) Lester Park Golf Course City of Duluth Street Address Image: City of Duluth 1860 Lester River Road Property Management Room 202 City Hall																				
Cay Duluth				Count St	y . Lou	15		City D	ulut	-h		•	_		Sta M			Zip Code 5580		•
Zip Code 55804	Phone ((218)	include a 525	rea codo - 1400	e)	. 100	-		Name		nerge				dıffe			owner)	1 3300	2	
Township Range 50 13	Section 4) Quar NE		iarter NW	Quarter	Quart		Owne (218	r Pho)	ne (in 723			a cod	e)		erge 18 ⁾		one (inclue 3° 3220		code)
/ ~ /~		Revalled Recondined or (mm/dor, oned	n (44) m	/	5 Date Last	м.,	. /	ر در س	(Jailons)	(7 Jype.	8 Internau		11 D. Day Contain	<u>/=</u> /	<u> ~/</u>		(Specify)	- ¹	Stored Stored (gallons)
			_51			1 0 	.0		35		_1		+ 5		2		-	11ne SULAR		
<i>f</i>]	sid Build	16 Date of Last	Tess.	17 Past Log.	- 1		T .			-	-			.*	•		ء مع	a . 	•	
		0 0	00	<u>N</u> 4		00	0	<u>0</u> 									, f my ki	• nowledge.	I certify	that th
									rinted Jar	Nam nes	ie .			ne			Title	irecto	or	
	<u> </u>			·	- -		$\left \right $		gnati	ure N	1)	11	in	1/.	P	~~	Pate	in la	6	~
III PQ 00410-01 (7/85)		<u> 1 1</u>	<u> </u>	· · ·		<u> 1 1 </u>	<u>, 1</u>		/		<u>~</u>	<u>n</u>	·	<u>n</u>		ĽЦ	<u>. </u>	<u>~/?</u>	<u> </u>	<u>,</u>

Notification/Change in Status for Aboveground Storage Tanks



Minnesota Pollution Control Agency

Metro District/ Regular Facilities 2nd Floor 520 Lafayette Road North St Paul, MN 55155 (651) 297-8664 or 800/657-3864 Fax# (651) 282-624



Page 1 of

County

3456

Please type or use black/blue ink and complete all applicable sections as accurately as possible. If the stathas more than 6 tanks, please photocopy this form prior to completion and submit additional sheets as necessary If you have questions reported directions or call. Return the completed and signed form to Attn. Joann Henry at the above address

UNSIGNED FORMS WILL BE RETURNED PLEASE RETAIN & COPRE OR YOUR RECORDS.

A		Facility	nformation			Carlos Mars				
					1777-0161 ¹ 2					
Tank Locati			Name		<u>Fank Owner</u>					
Sue Name Lester Park			City of Duluth							
Street 1860 Lester	River Ro	ad	Street 4	825 M.	ke Cold/1	110 Dr.V	و			
City Duluth	County 57	Louis)	^{City} D	uluth			!			
State MN	Zip SS	804	State	NN		^{Ζιρ} 55	807			
Contact Name Jeff Andorson	Phone 2/8-5	25-0829	Contact Name	chuck 1	raegre Ph					
Has the site been registered before?	Yes		Does the site ha] No 🖾			
Fill in if known Site # 5358	Major Facilit	y#unk	Does the facility	y have a site dia	agram	Yes				
Type of Facility Service Station Bulk Plant Education Industry/Manufacturing Automotive Agricultural Production Petroleum Refinery/Terminal Transportation Railroad Residence Utility Gov Federal Gov County Gov City Food Processing/Storage Hospital/Medical /Nursing Farm Office Building Manna/Bait/Resort Other										
	Date		 Tan	k # Ifunkr	own assign (i	i.e. 1001,1002.	<u>,</u>			
B. Tank Action	DD/MM/YY	# 100 3	#1004	#	#	#	#			
Site Name/Address Change	01/11/00				i i stran i se se se se se se se se se se se se se					
Owner Change	/		- <u>-</u>							
Substance Stored Change										
Installed New Tank/Piping										
Repaired/Upgraded Tank/Piping										
Removed Tank										
Tank Out of Service	/									
C .		Tank Ir	formation							
1. Capacity in Gallons (Size of Tank))	265	265							
2. Substance Stored in Tank? (Gas,	Diesel ect.)	Fuel oil	Fueloil							
3.Is Tank within 500ft. of a Class 2 S	Surface water	Yes 🖾 No 🗆	Yes No D	Yes No	Yes No	Yes No	Yes No			
4. Is the Tank Indoors?(Check quality	fication)	Yes No	Yes 🗷 No 🗆	Yes No	Yes No	Yes No	Yes No			
5. Is Tank Used for Home Heating?		Yes□ No⊡	Yes No 🖾	Yes No	Yes No	Yes No	Yes No			
6. Is Tank Located on a Farm or Us Noncommercial Residential use	ed for	Yes□ NoB	Yes No	Yes No	Yes[] No[]	Yes No	Yes No			
7. Is Tank and Piping Labeled?		Yes No	Yes 🖾 N 🖸	Yes No	Yes No	Yes No	Yes No			
8. Tank Type										
Steel		<u>Þ</u>	ম্বি							
Fiberglass/Synthetic/Plastic										
Stainless Steel										
Other (please describe)			11							
Double-Walled Tank		Yes No	Yes No Da	Yes No	Yes No	Yes No	Yes No			
Double-Bottom Tank		Yes No Z	Yes No 🖄	Yes No	Yes No	Yes No	Yes No			

					Pa	ige 2 of 4
C. Tank Information Continued	Tank# 100.]	, Tank# 1004	Tank#	Tank#	Tank#	Tank#
9. Secondary Containment (Dikes) · None	Side Bot	Side Botz	Side	Side - Bot.	Side Bors	Side
Concrete] 0 ; 0				0 ! 0~	
Steel or Fiberglass] 🛛 ; 🗆					
Soil (meeting permeability requirements)						
Synthetic Membrane (
Geosynthetic Clay Liner 4						
% Containment of Tank (1 e 100%, 110% ect)						
10. Corrosion Protection None	7			· · · ·		
Sacrificial Anodes System						
Impressed Current System						
Draining Concrete Pad						
Internal Liner (in accordance w/ API 652)						
Internal Inspection (in accordance w/ API 653)						
11. AST Base Material (what is under tank)				ંગેરે સંગોહ વિંગે વિવસ્તિ છે.	and the second second second second second second second second second second second second second second second	where the more that
Concrete Slab or Pad		0				
Concrete Ring Wall				<u> </u>		
Asphalt						
Ground (soils, rock, sand ect)						
Supports (elevated above ground)	×	8				
Impermeable Liner (Describe)						
12. Overfill Protection	de george george	15 Pop dontes	and the second second second second second second second second second second second second second second second	د از از از این از این ایس از این از این این از این از این این از این از این از این از این از این از این از این این از این از	ter and the second second	
High Level Alarm (Visible or Audible)						
Automatic Shut-Off						
Mounted Sight Glass/Gauge (refer to directions)		図				
Manual Gauge (refer to directions)						
13. Substance Transfer Area None	ل قرائد ^{الر} ائية الجرارية بيانية الموار					
Pad						
Curbed Pad						
Spill Box			<u> </u>			
Other (please specify)				·		
14. Leak Detection	- 12 - N - N - 14 - 2		:			
Visual Monitoring (elevated tanks)	12-	R				
Interstitial Monitoring (for double-walled tanks)						
Soil Vapor Monitoring			<u> </u>			
SIR (Statistical Inventory Reconciliation)						
						<u> </u>
Monthly Reconciliation	6 /				<u> </u>	
D: Piping Information						
1. Type of Pipe (steel, flexible, plastic, fiberglass.)	Lopper	Coffer				
	Ab Un 🗆		Ab Un	Ab Un		Ab Un
3. Double-walled	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
4. Corrosion Protection None		· · ·				
Sacrificial Anodes System					<u> </u>	
Impressed Current System						
Other (specify in comments box in directions)						
5. Pipe Monitoring None		·				
Tracer Gas					<u> </u>	
Hydrostatic				<u>D</u>		
Lock Down Pressures				<u> </u>		
Sump Sensor				0		
Other approved method (please specify)						
	NAMES OF STREET	104-65-85				
Printed name of owner or authorized representative	Signature of ov	vner or authorized		-	Date	
Chuck Faegue	Ch	uch ?	haque		11-1-0	0
				L		

at the advantage of two that the information submitted is accurate and complete to the best of my knowledge

٩.

Page 2 of 4

- ____ *



AI ID 42034 5/10/2022

Tank Designation All

Reset Filters

Lester Park Golf Course

Address	Mailing Address	24 Hr Phone
1860 Lester River Rd	1860 Lester River Rd	Null
Duluth, MN 55804	Duluth, MN 55804	

Owner (Person) Enger Golf Course	Owner (Organization) None	Historic Tank Site Number(s) TS0005358
Office Phone: Mobile Phone: Other Phone:		
Tank Count *adjusts with Tank Designation filte	r	

UST	2
AST	2

Agency Interest Location



Tank Summary

Tank Designation	Subject Item	A/U	Tank Status	Stored Product	Capacity Gallons	Tank Material	Pipe Material
1	EQUI000000004	A	Active	Gasoline Blends (E1-E49)	500	Carbon steel	Null
2	EQUI000000003	А	Active	Diesel Fuel	500	Carbon steel	Null
001	EQUI000000002	U	Removed	Gasoline	350	Bare/Paint/Asph Coat Steel	Steel/Iron
002	EQUI000000001	U	Removed	Gasoline	0	Other	Other

001	EQUI000000002	UST	Tank Designation: 001 Tank Dispens Type: Suction Tank Material: Bare/Paint/Asph Coat Steel Tank Cath Pro: Not needed Pipe Material: Steel/Iron Pipe Wall Type: Single Pipe Ext Corr Protect: None Install Date: 06/01/1975 Status Change: 04/24/1990 Wall Type: Single Stored Product: Gasoline	Total Capacity: 350 Tank Status: Removed # of Tank Compartments: 1 Compartment Stored Product: Overfill Information Tank Overfill Prevent: UST Not needed Piping Release Protection Tank Release Detect: UST Not needed Spill Bkt Wall Type: Pipe Leak Detect: SSP
002	EQUI000000001	UST	Tank Designation: 002 Tank Dispens Type: Gravity Tank Material: Other Tank Cath Pro: Not needed Pipe Material: Other Pipe Wall Type: Single Pipe Ext Corr Protect: None Install Date: 01/01/1900 Status Change: 04/24/1990 Wall Type: Single Stored Product: Gasoline	Total Capacity: 0 Tank Status: Removed # of Tank Compartments: 1 Compartment Stored Product: Overfill Information Tank Overfill Prevent: UST Not needed Piping Release Protection Tank Release Detect: UST Not needed Spill Bkt Wall Type: Pipe Leak Detect: NONE

1	EQUI000000004	AST	Tank Designation: 1 Tank Dispens Type: Tank Material: Carbon steel Tank Cath Pro: Pipe Material: Pipe Wall Type: Pipe Ext Corr Protect:	Install Date: 09/15/1994 Status Change: 11/01/1994 Wall Type: Double Stored Product: Gasoline Blends (E1-E49) Total Capacity: 500 Tank Status: Active # of Tank Compartments: 1 Compartment Stored Product:
2	EQUI000000003	AST	Tank Designation: 2 Tank Dispens Type: Tank Material: Carbon steel Tank Cath Pro: Pipe Material: Pipe Wall Type: Pipe Ext Corr Protect:	Install Date: 09/15/1994 Status Change: 11/01/1994 Wall Type: Double Stored Product: Diesel Fuel Total Capacity: 500 Tank Status: Active # of Tank Compartments: 1 Compartment Stored Product:

Compliance and Enforcement

Activity Type Desc	Activity Id	Date	Staff	
Aboveground Storage Tank Notification of Installation or Change in Status	NOT19940001	05/05/2000	Null	
Underground Storage Tank Notification of Installation or Change in Status	NOT19750001	10/08/1986	Null	
	NOT19900001	04/24/1990	Null	
	NOT20000001	01/01/1900	Null	

Compliance and Enforcement Comments

Correspondence

Received Date	Comment Type Desc	Comments
08/04/1992	Registration Form	The following comment was entered on: 10/08/86 REFER QUESTIONS TO MARC MCSHANE (218)723-3344 OR MIKE HOLMQUIST (218)723-3299 TANKS 001,002 REMOVED PER LETTER FROM CITY OF DULUTH REC'D 05/07/90. WHILE REMOVING TANK 001, REMOVERS DISCOVERED SECOND TANK AND MUCH CONTAMINATION. LITTLE INFO AVAILABLE ON SECOND TANK. OLD NOTICE ATTCHD.
03/01/2001	Registration Form	Company: CITY OF DULUTH Client: CHUCK FAEGRE PCA: JCH //3/1/2001 CHUCK FAEGRE, CITY OF DULUTH SENT NOTIFICATION FORM TO REGISTER 2 265 GA. AST TANKS CONTAINING FUEL OIL- I DID NOT LIST THESE 2 TANKS ON THE RECORD. FORM SIGNED 11/1/2000



Appendix E

Historical Aerial Photographs



Historical Aerial Photo Report |2022

Order Number: 71089 Report Generated: 04/28/2022

Project Name: Lester Park Ph I ESA Project Number: J220163

> Lester Park 4th Division 6401 E Superior St Duluth, MN, 55804

2 Corporate Dr Suite 450 Shelton, CT 06484 Toll Free: 866-211-2028 www.envirositecorp.com Envirosite's Historical Aerial Photo Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Aerial Photo Report includes a search of available historical aerial photographs, dating back to the 1930s, or earliest available photographs.

ENVIROSITE SEARCHED SOURCES

SUBJECT PROPERTY:

Lester Park 4th Division 6401 E Superior St Duluth, MN, 55804

<u>YEAR:</u>	<u>SCALE:</u>	SOURCE:
1939	1" = 500'	M.H.A.P
1948	1" = 500'	M.H.A.P
1952	1" = 500'	U.S.G.S
1953	1" = 1,000'	U.S.G.S
1961	1" = 500'	M.H.A.P
1972	1" = 500'	M.H.A.P
1973	1" = 1,000'	U.S.G.S
1975	1" = 500'	U.S.G.S
1978	1" = 1,000'	U.S.G.S
1981	1" = 500'	M.H.A.P
1986	1" = 1,000'	NHAP
1989	1" = 500'	M.H.A.P
1991	1" = 500'	DOQ
1992	1" = 1,000'	NAPP
1997	1" = 1,000'	NAPP
2008	1" = 500'	NAIP
2010	1" = 500'	NAIP
2013	1" = 500'	NAIP
2015	1" = 500'	NAIP
2017	1" = 500'	NAIP
2019	1" = 500'	NAIP

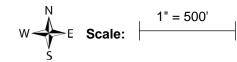
Disclaimer - Copyright and Trademark Notice

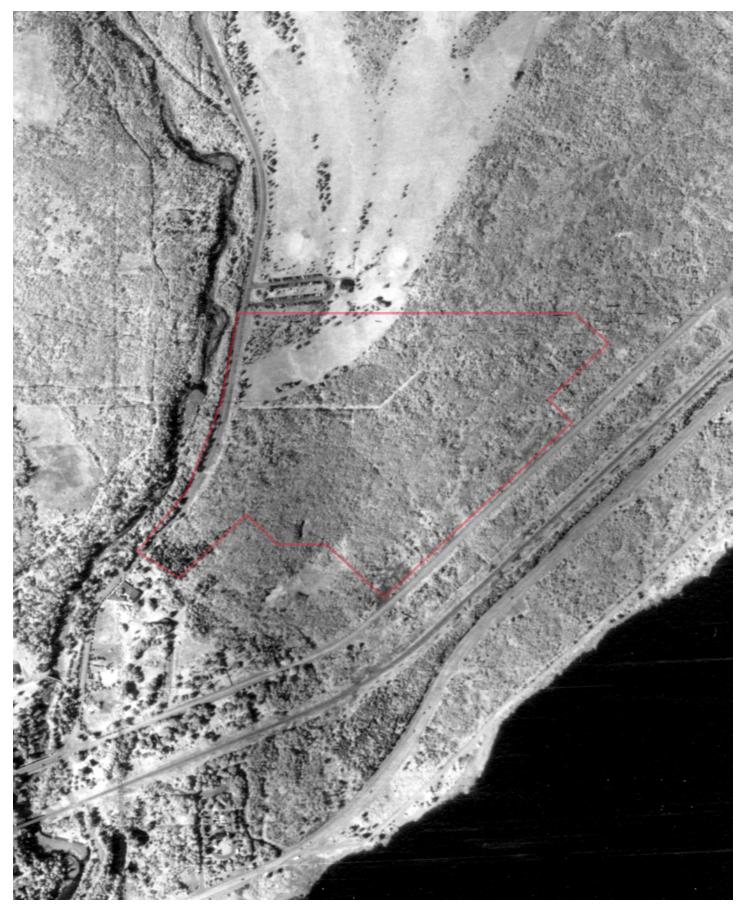
All information contained in this report are based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of Envirosite Corporation.

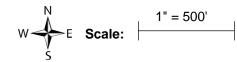
NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND Envirosite assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to Envirosite. Envirosite cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. Envirosite shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of Envirosite. Any damages shall be limited to the purchase price of the report.

Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to Envirosite, and contain copyrighted material and trademarks of Envirosite. All other trademarks used herein are the property of their respective owners. All rights of Envirosite as to the Reports are reserved.

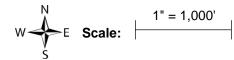


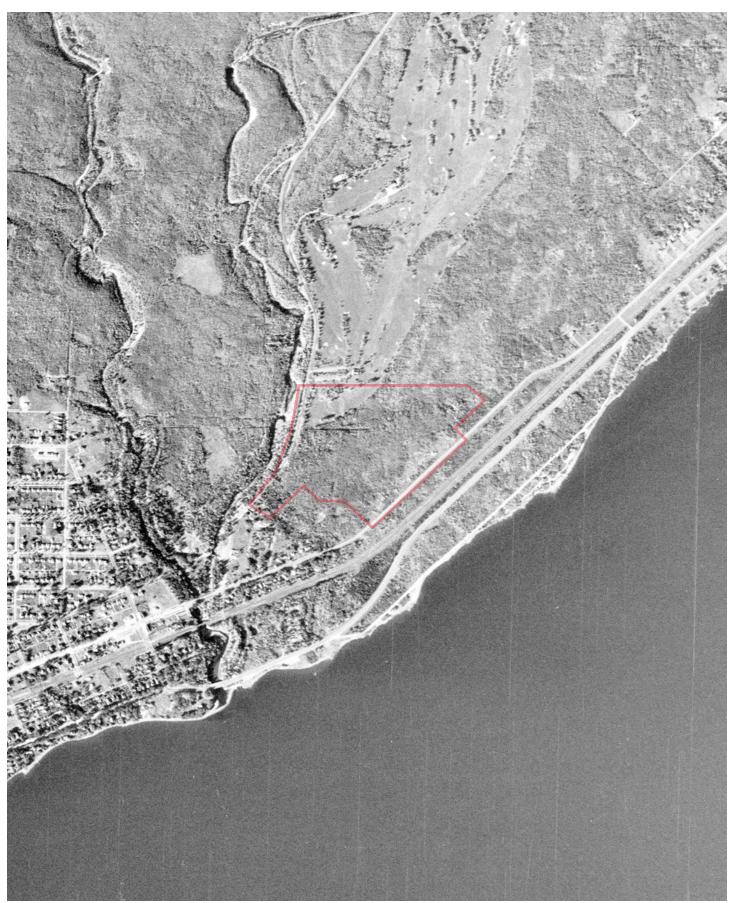




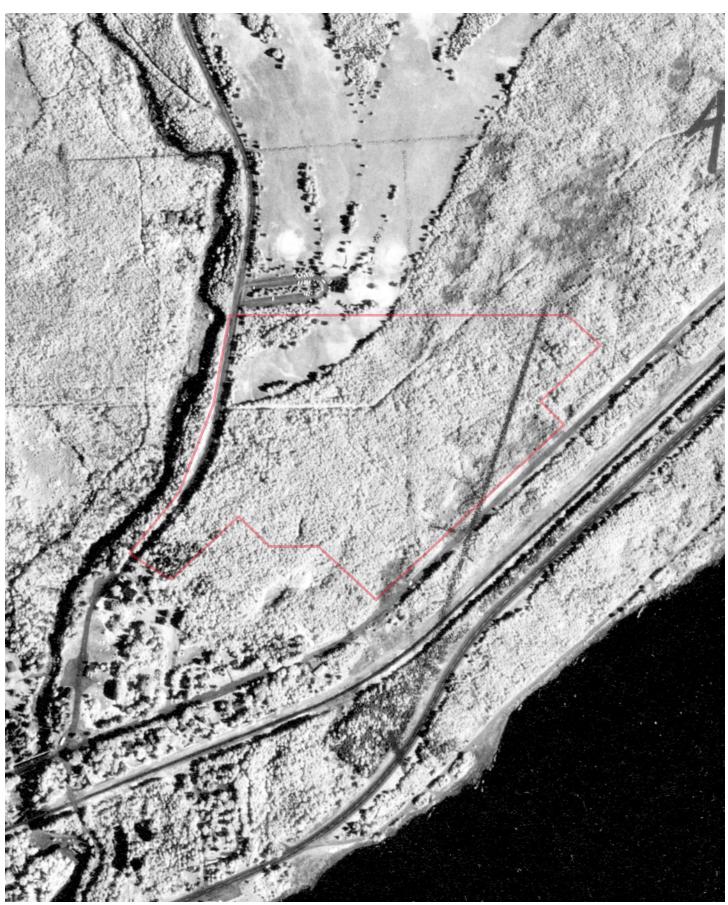


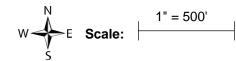




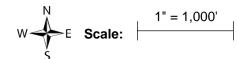




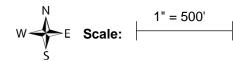




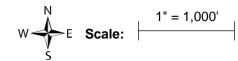




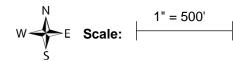




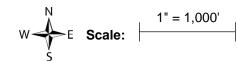


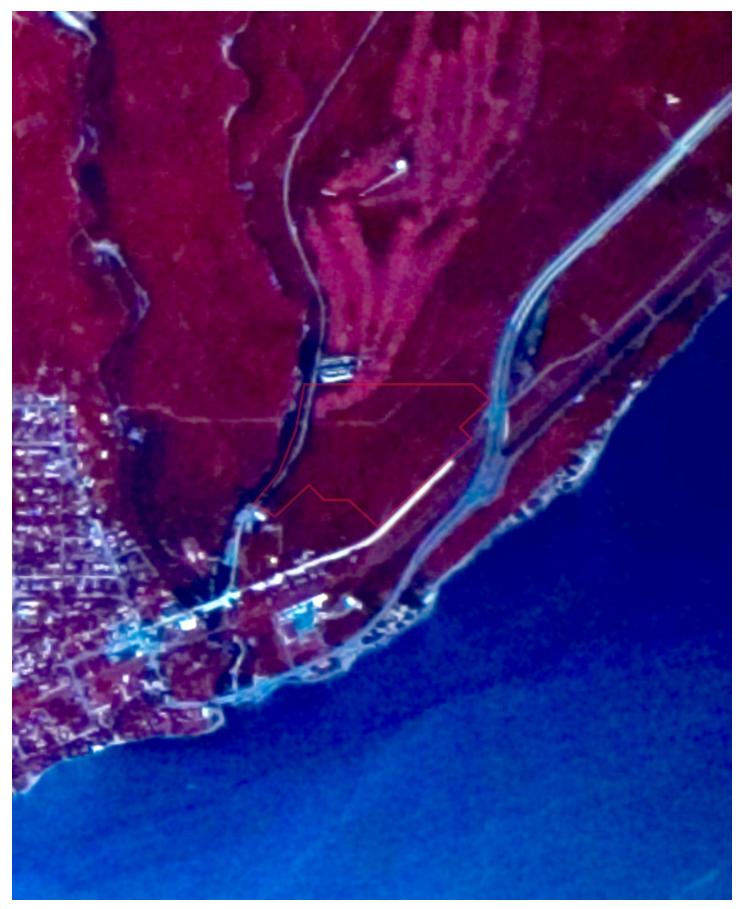


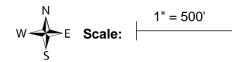


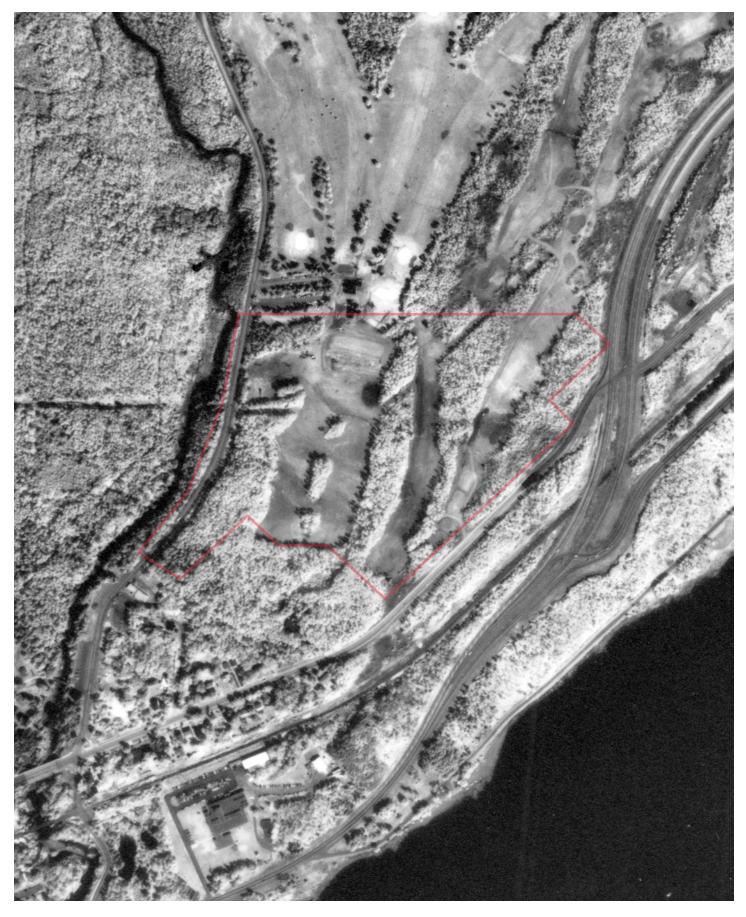




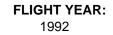


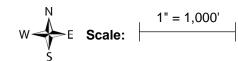






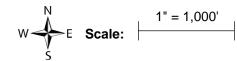




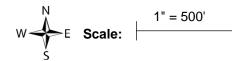


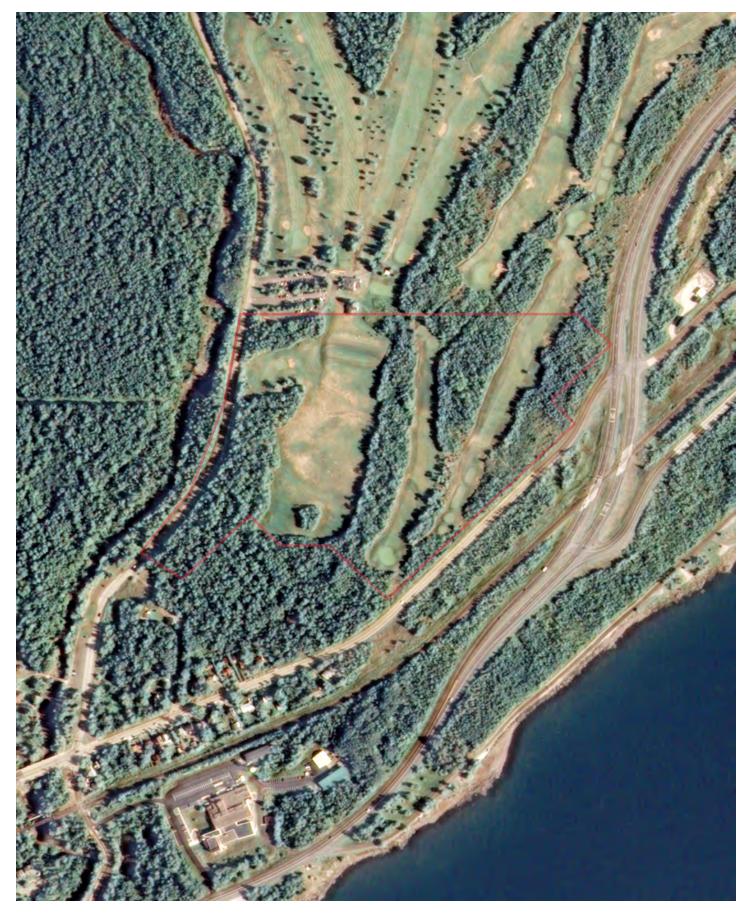


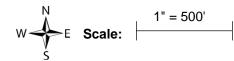


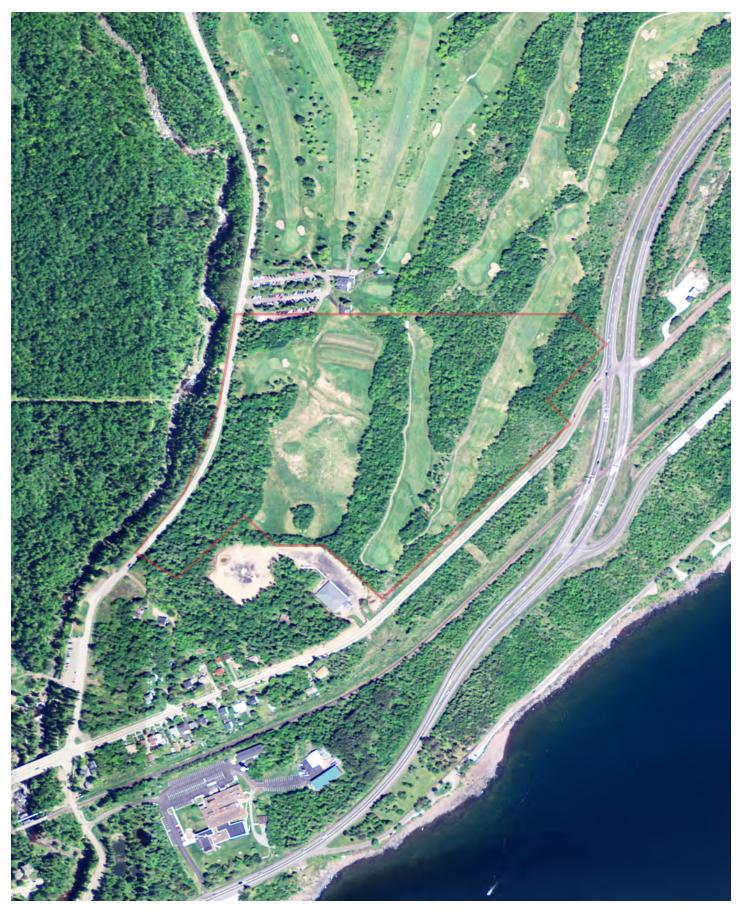


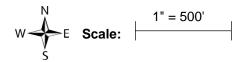


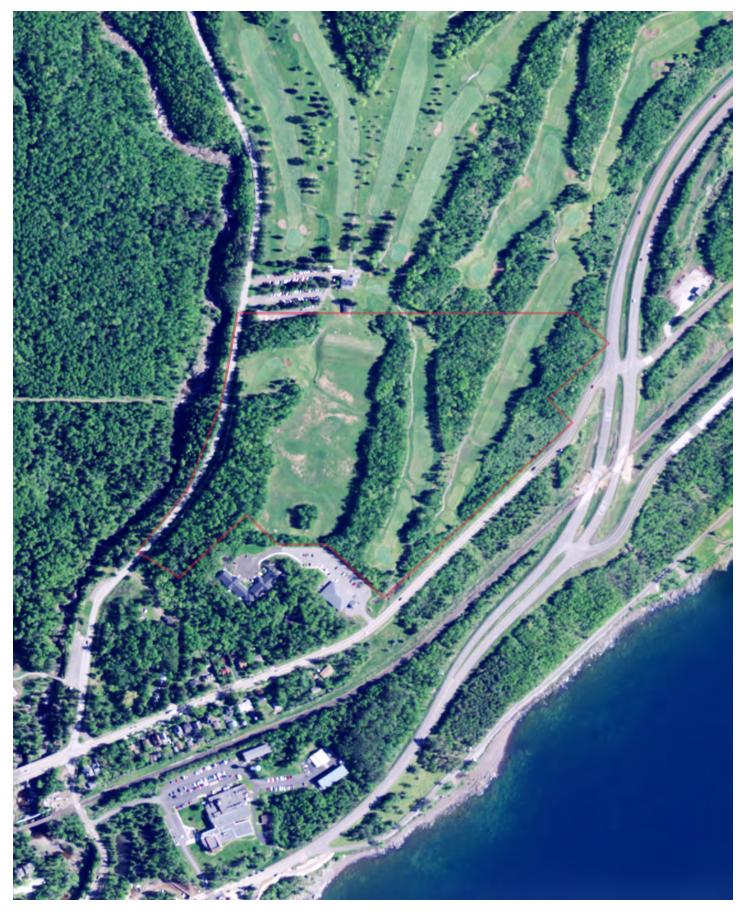


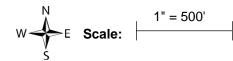


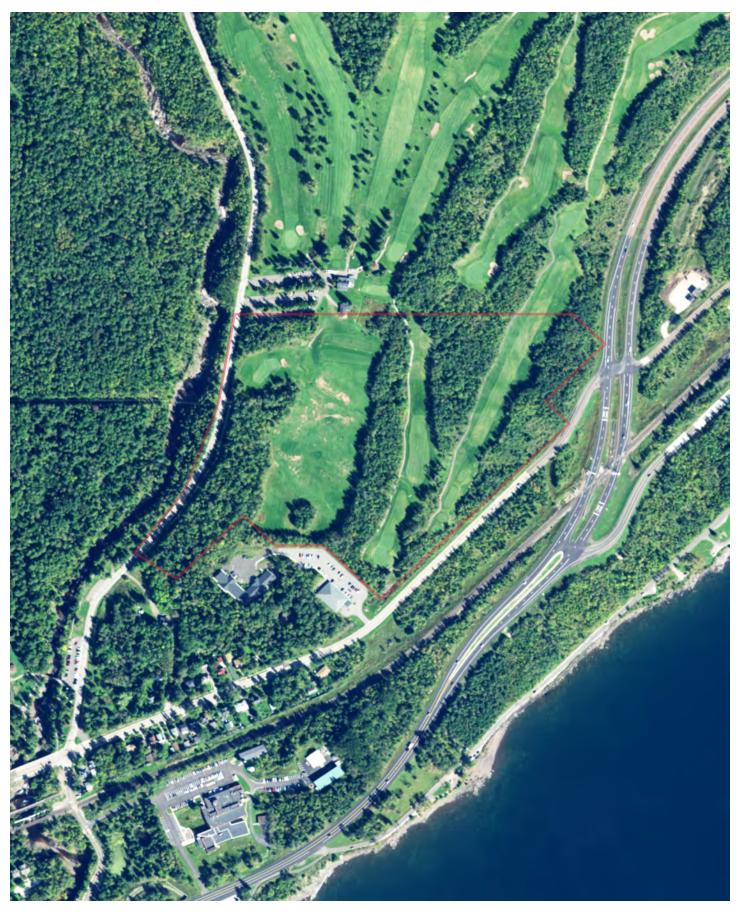


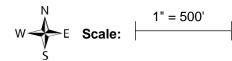




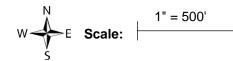


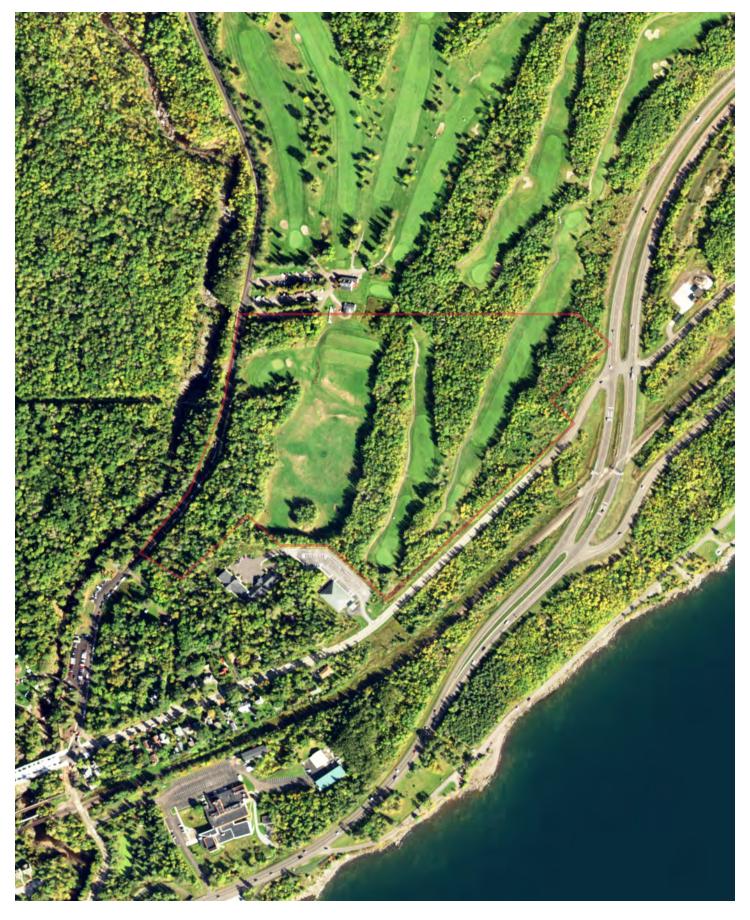














Appendix F

Historical Real Estate Maps

HIG Research Summary

Site Location

Lester Park 4th Division 6401 E Superior St Duluth, MN

Requested by

Envirosite Corporation 2 Corporate Drive, Suite 450 Shelton, CT HIG Project # 2063285 Client Project # 71089 Date Created 04/27/2022



This Research Summary identifies the products and services provided by Historical Information Gatherers, Inc. (HIG) for the above referenced site location. All products are provided as PDFs unless otherwise noted.

FIM+ Maps

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIMs), real estate atlases and similar maps for the site location and adjoining properties. These maps were used to create a multi-page file named FIM+Maps. The maps have title blocks that include the map publisher, year the map was created and, if applicable, the year the map was last updated. The years provided are:

1902, 1924, 1955, 1963

Disclaimer & Limitation of Liability

This Research Summary and the related documents and images provided by Historical Information Gatherers (hereafter referred to as the "Site Specific HIG Data") contain information obtained from a variety of public and private sources. Additional information for the site and surrounding properties may exist. Accordingly, there can be no guaranty or warranty that the information provided is complete for its particular intended purpose. No warranty expressed or implied, is made whatsoever in connection with the Site Specific HIG Data. Historical Information Gatherers specifically disclams the making of any such warranties, including without limitation, merchantability or fitness for a particular purpose. Historical Information Gatherers, its officers, employees and independent contractors cannot be held liable to anyone for any loss or damage, whether arising out of errors or omissions, negligence, accident or any other cause, resulting directly or indirectly from any information provided or any information not provided in the Site Specific HIG Data. Any liability on the part of Historical Information Gatherers is strictly limited to a refund equal to the amount paid for the Site Specific HIG Data.

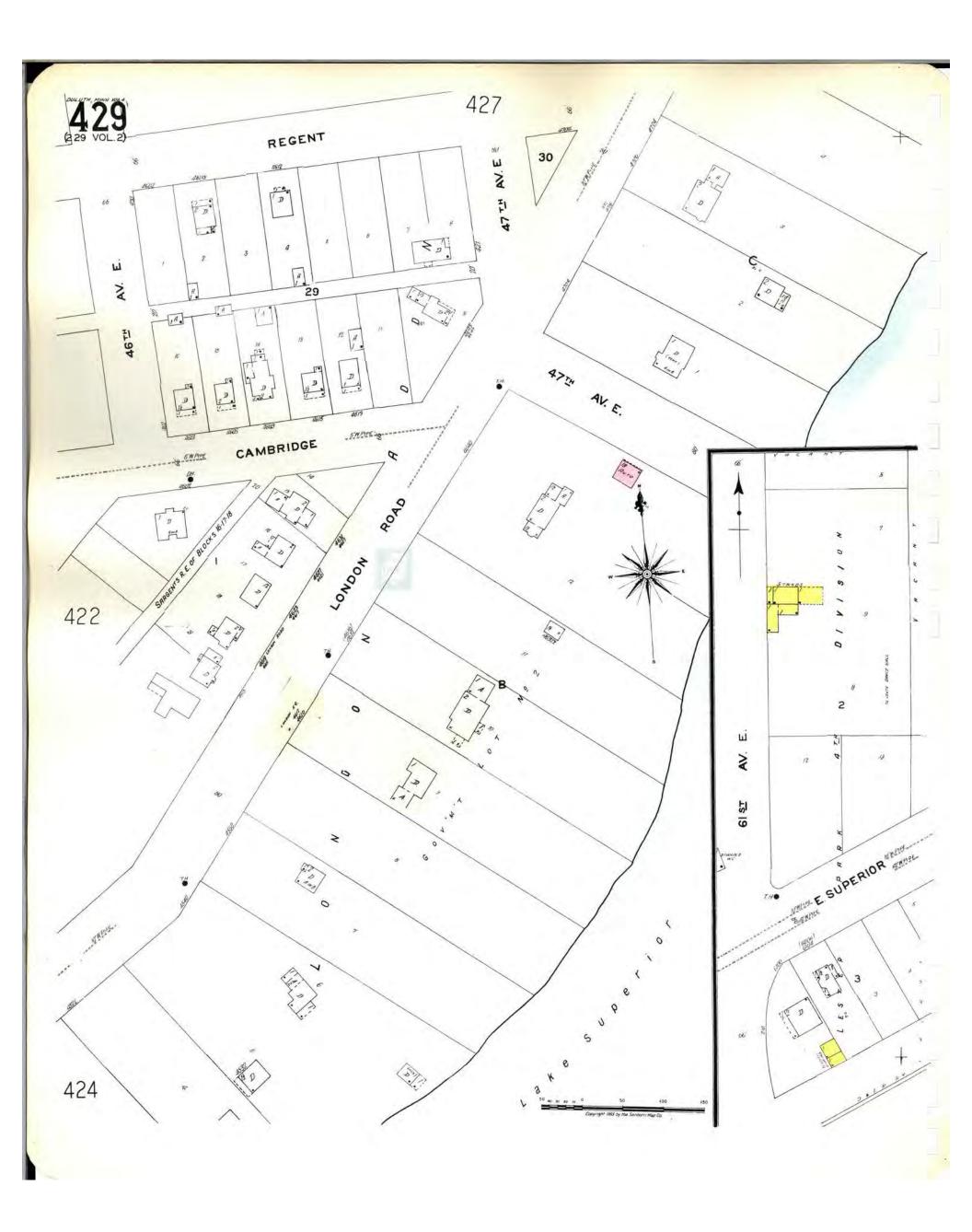
HIG Copyright Notice

This Research Summary and the selection, arrangement and compilation of Site Specific HIG Data are the property of Historical Information Gatherers. © Copyright 2022 by Historical Information Gatherers, Inc. All rights reserved. The person or entity that ordered and paid for the Site Specific HIG Data is granted a personal, non-assignable, limited license to reproduce the Site Specific HIG Data solely for purposes of providing supporting documentation for reports produced for the site location which is noted on page one of this Research Summary. Any other reproduction or other use of the Site Specific HIG Data in any media or format, in whole or in part, is expressly prohibited without prior written permission from Historical Information Gatherers, and the person or entity that ordered and paid for the Site Specific HIG Data assumes all liability for the making of any such reproductions.

Licensing Agreement

The licensing agreement between Historical Information Gatherers and infoGroup provides that Historical Information Gatherers may create photocopies or reproductions of portions of Polk City Directories, Hill-Donnelley Criss-Cross Directories and other directories under infoGroup copyright. The licensing agreement also permits the person or entity that ordered and paid for the Site Specific HIG Data to include photocopies or reproductions of Polk City Directories, Hill-Donnelley Criss-Cross Directories and other directories of portions of Polk City Directories, Hill-Donnelley Criss-Cross Directories and other directories and other directories of portions of Polk City Directories, Hill-Donnelley Criss-Cross Directories and other directories under infoGroup copyright as supporting documents for reports produced for the site which is the subject of the Site Specific HIG Data.





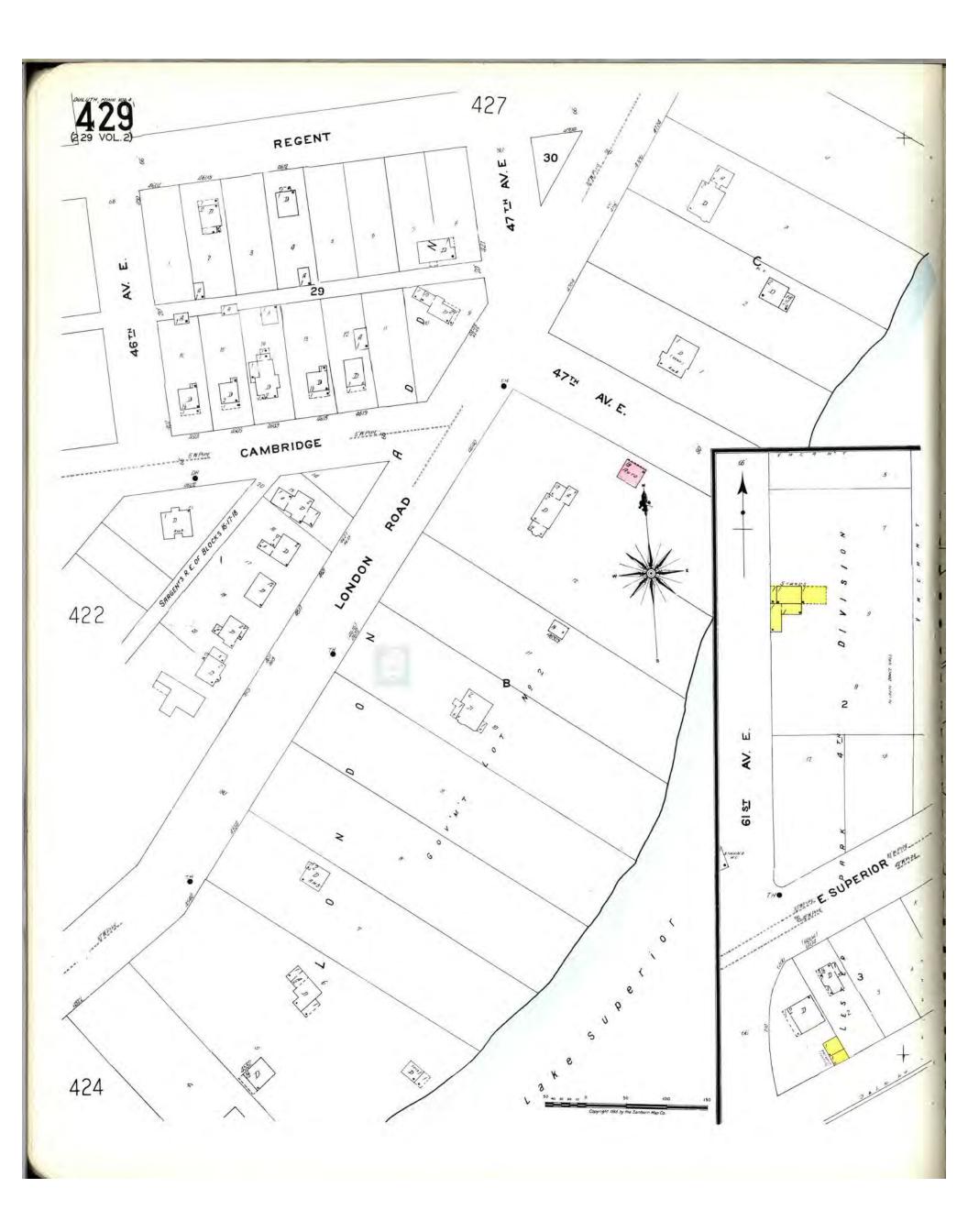
Map Type: Fire Insurance Publisher: Sanborn Map Co. Publication Name: Duluth, MN Vol. 3 Base Map Date: 1909 Revised Date: September 1963 Republished Date: 1955 Sheet Number: 429

1963

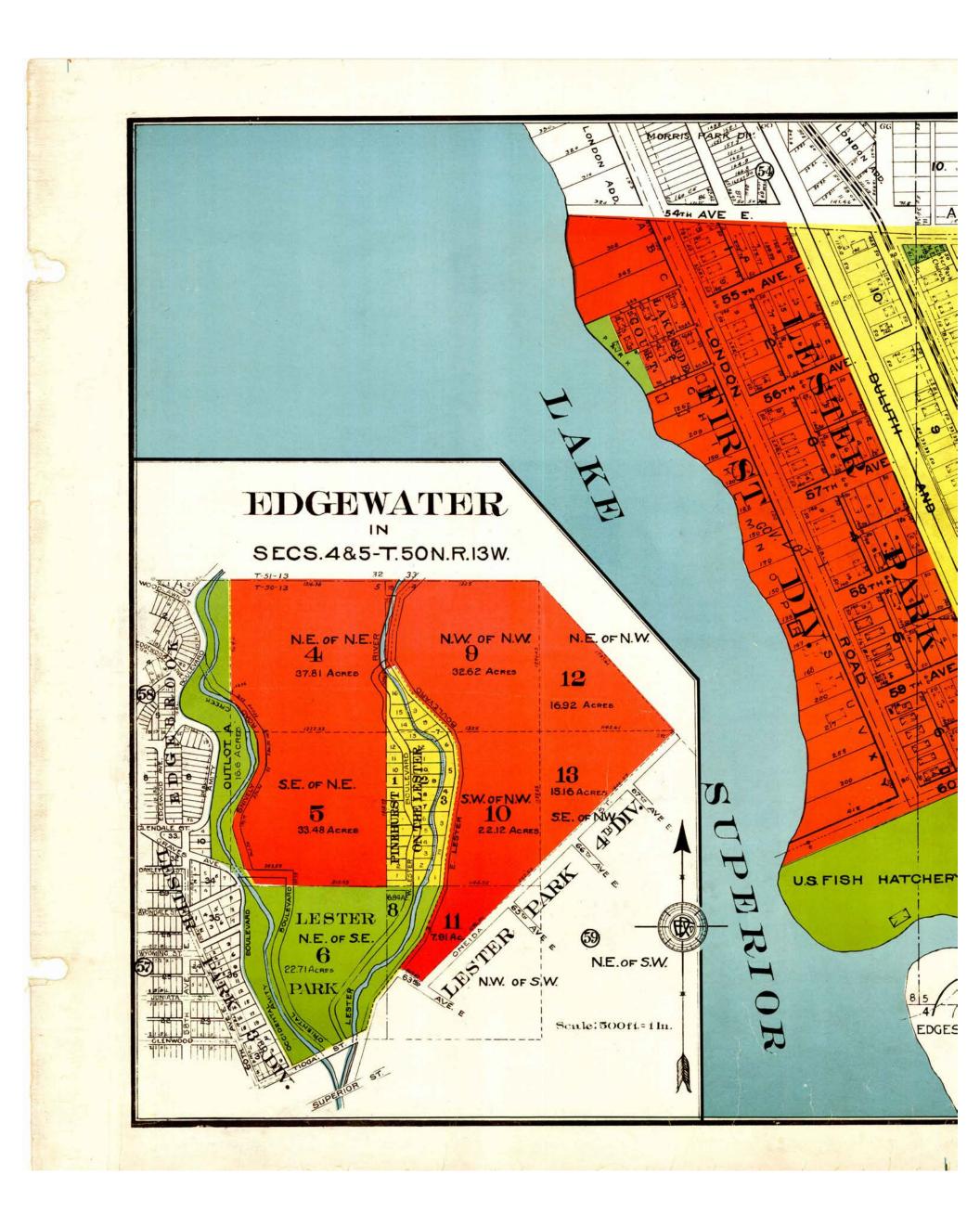
Requested by: Envirosite Corporation

Lester Park 4th Division 6401 E Superior St Duluth, MN 55804 Client Project # 71089 HIG Project # 2063285 www.historicalinfo.com

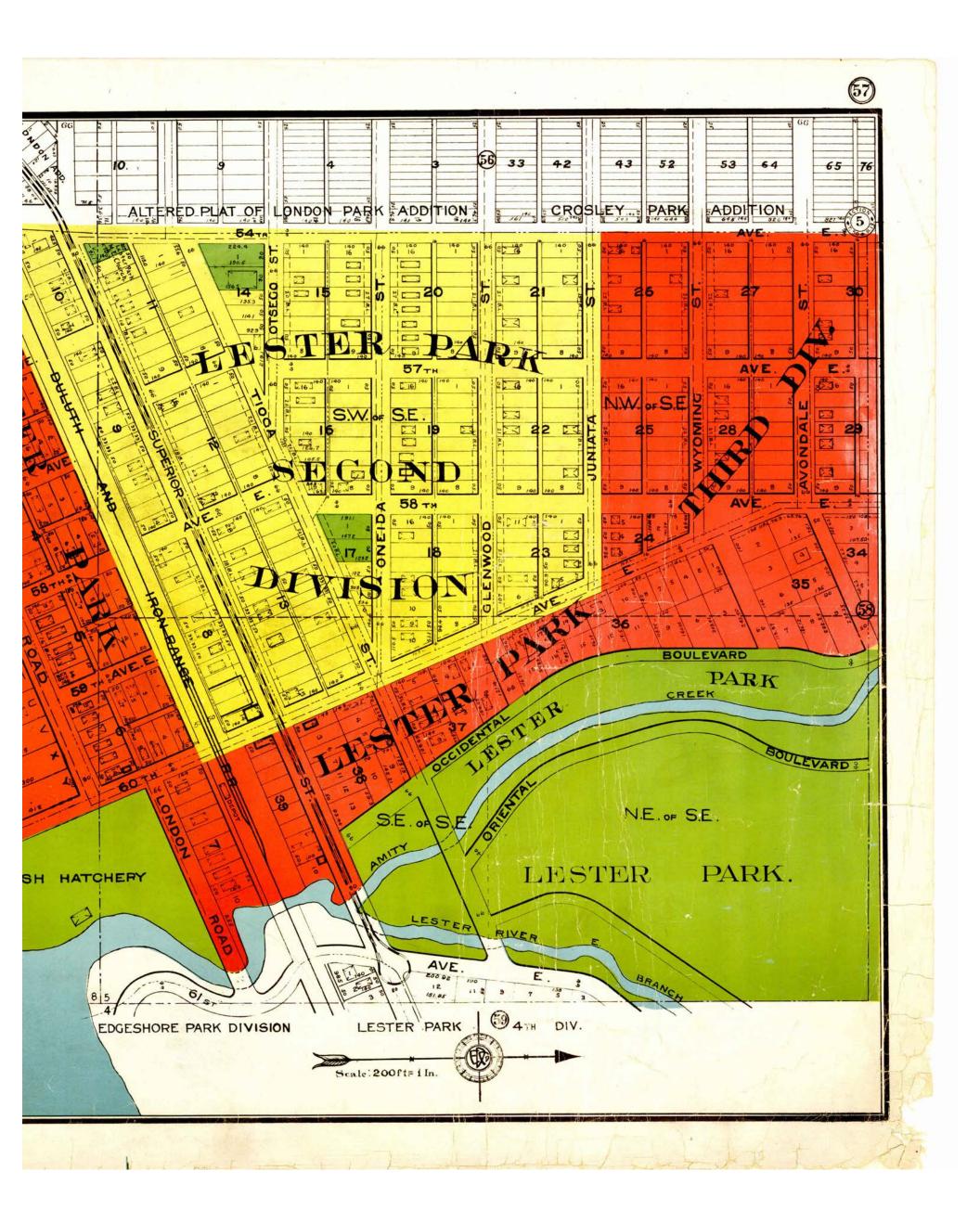




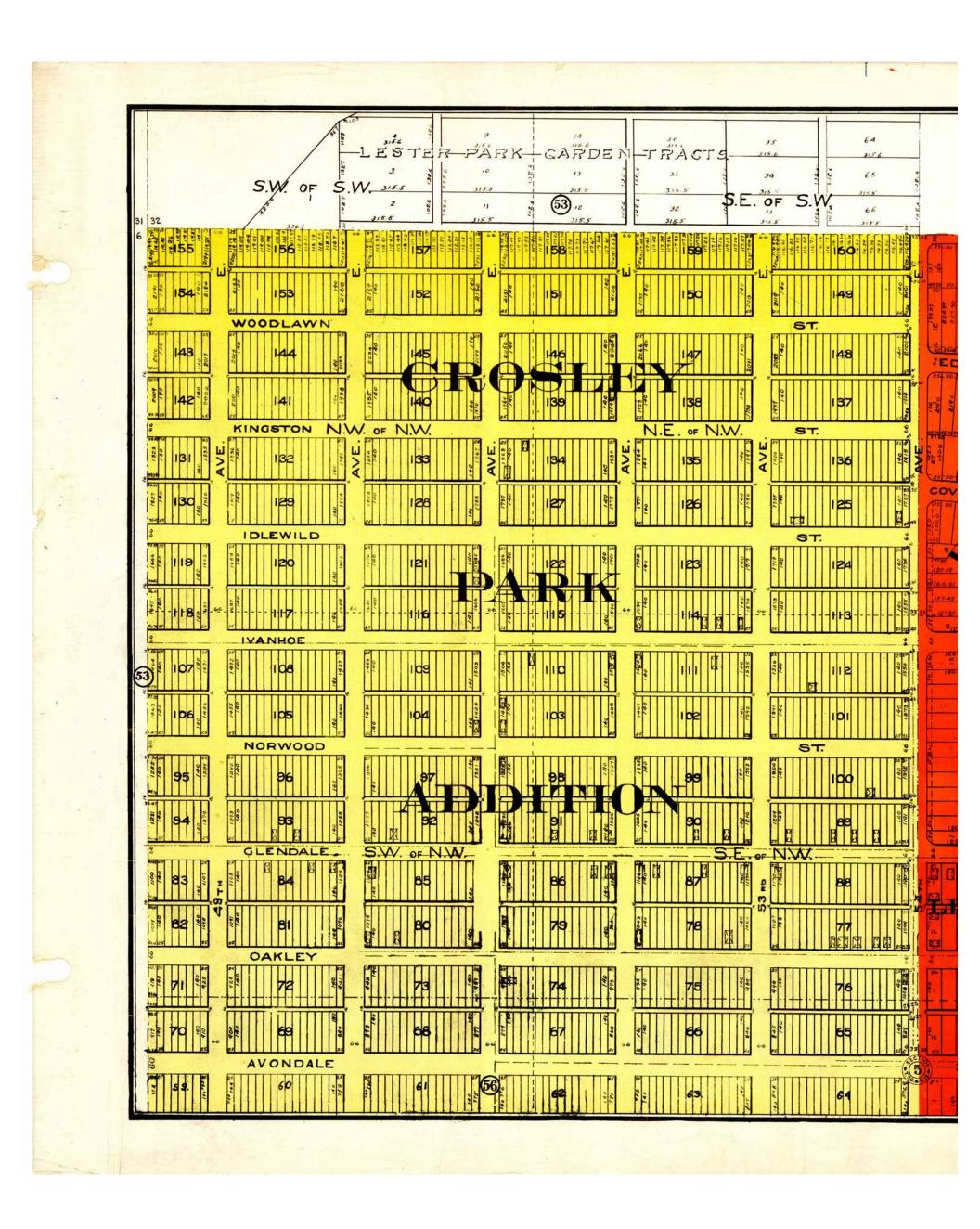
Map Type: Fire Insurance		Requested by: Envirosite Corporation	
Publisher: Sanborn Map Co. Publication Name: Duluth, MN Vol. 3		Lester Park 4th Division	
Base Map Date: 1909	1955	6401 E Superior St	(HIG)
Revised Date: 1955	- 700	Duluth, MN 55804	
Republished Date: 1955		Client Project # 71089	
Sheet Number: 429		HIG Project # 2063285 <u>www.historicalinfo.com</u>	



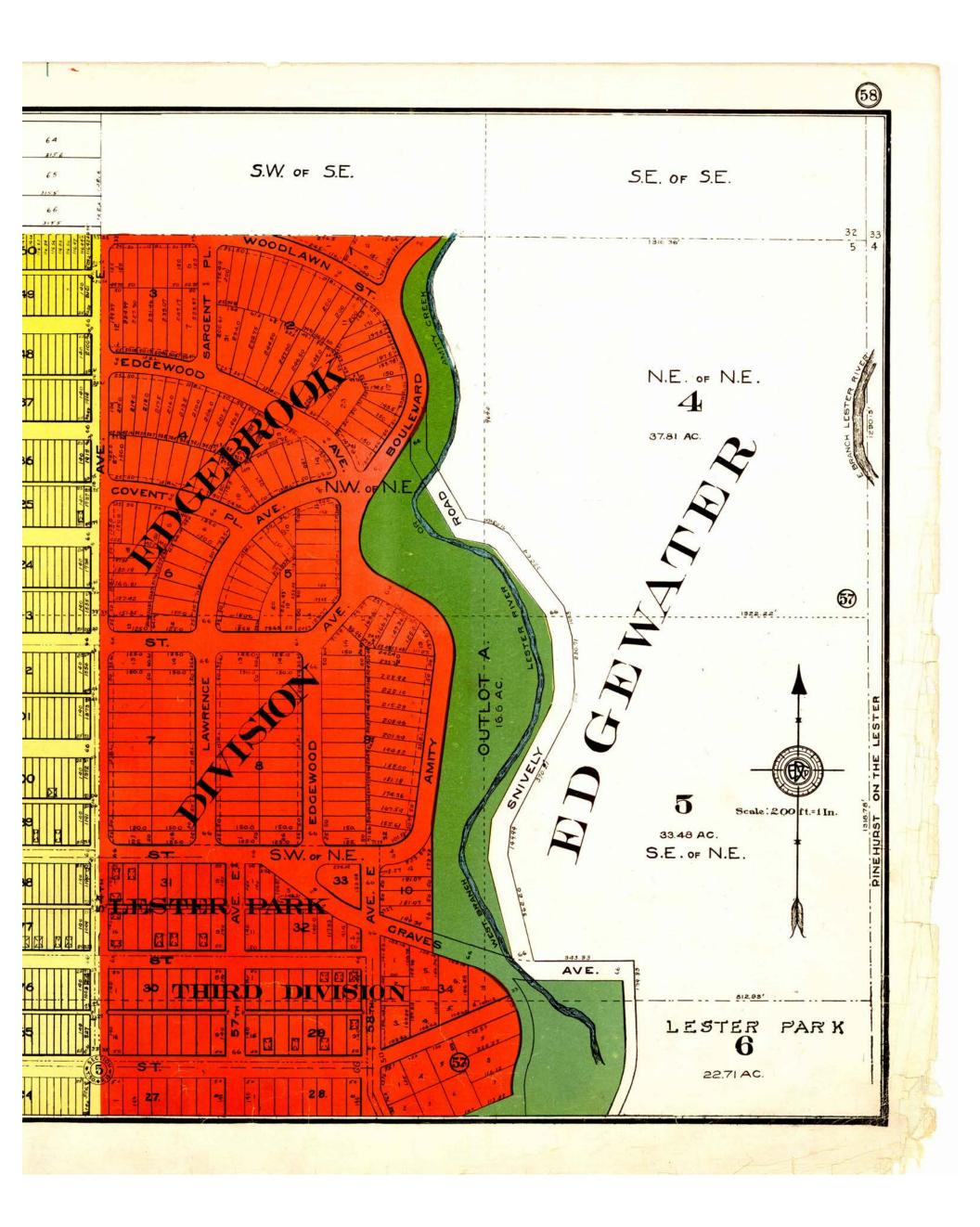
Map Type: Real Estate Atlas Publisher: Duluth Engineering Co. Publication Name: Duluth, MN Base Map Date: 1924 Revised Date: Republished Date: Sheet Number: 57L	1924	Requested by: Envirosite Corporation Lester Park 4th Division 6401 E Superior St Duluth, MN 55804 Client Project # 71089 HIG Project # 2063285 www.historicalinfo.com	HIG
--	------	--	-----



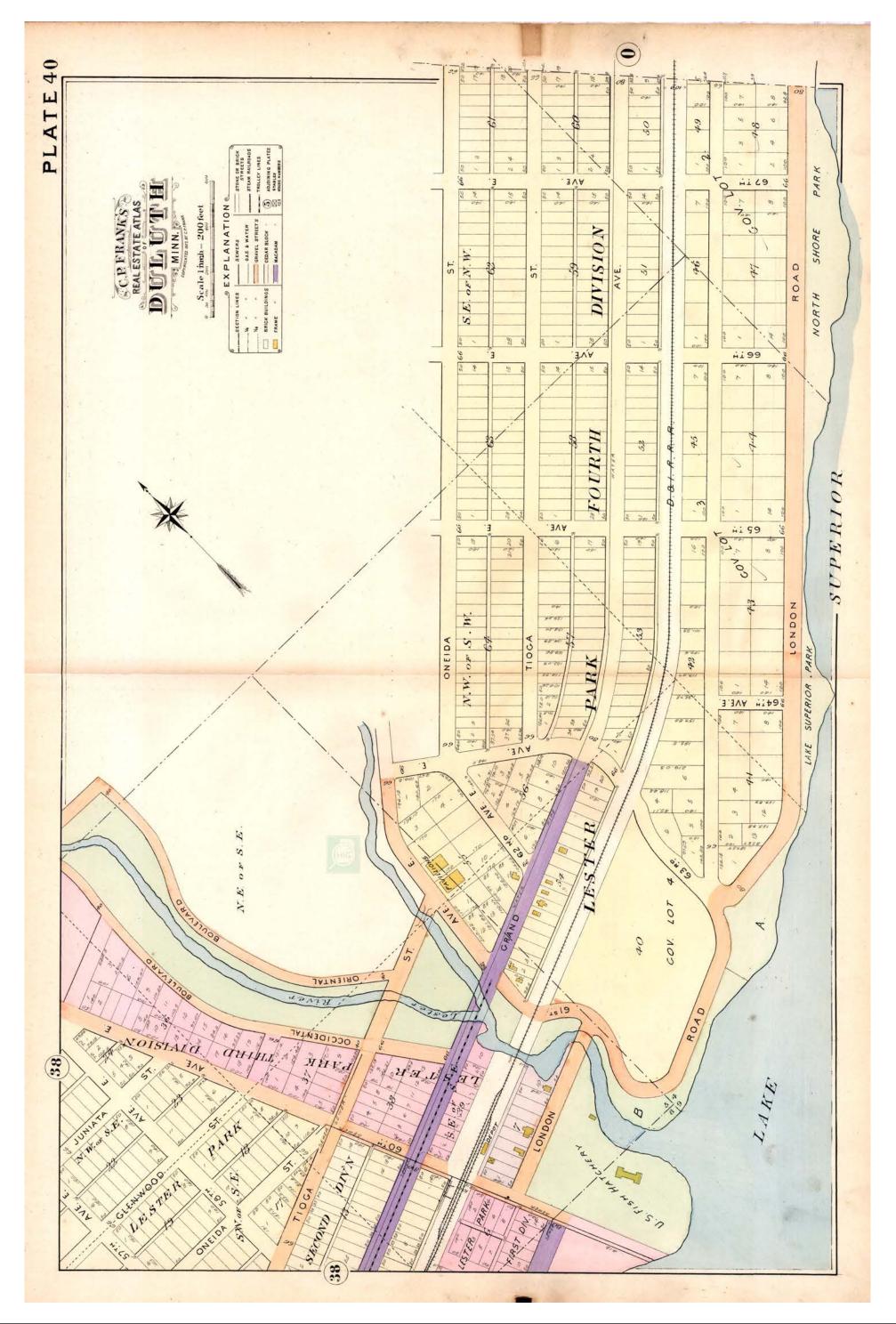
Map Type: Real Estate Atlas Publisher: Duluth Engineering Co. Publication Name: Duluth, MN Base Map Date: 1924 Revised Date: Republished Date: Sheet Number: 57R	1924	Requested by: Envirosite Corporation Lester Park 4th Division 6401 E Superior St Duluth, MN 55804 Client Project # 71089 HIG Project # 2063285 www.historicalinfo.com	HIG
--	------	--	-----



Map Type: Real Estate Atlas Publisher: Duluth Engineering Co. Publication Name: Duluth, MN Base Map Date: 1924 Revised Date: Republished Date: Sheet Number: 58L	1924	Requested by: Envirosite Corporation Lester Park 4th Division 6401 E Superior St Duluth, MN 55804 Client Project # 71089 HIG Project # 2063285 www.historicalinfo.com	HIG
--	------	--	-----



Map Type: Real Estate Atlas Publisher: Duluth Engineering Co. Publication Name: Duluth, MN Base Map Date: 1924 Revised Date: Republished Date: Sheet Number: 58R	1924	Requested by: Envirosite Corporation Lester Park 4th Division 6401 E Superior St Duluth, MN 55804 Client Project # 71089 HIG Project # 2063285 www.historicalinfo.com	HU
--	------	--	----



Map Type: Real Estate Atlas Publisher: C. P. Frank Publication Name: Duluth, MN Base Map Date: 1902 Revised Date: Republished Date: Sheet Number: 40	1902 Requested by: Envirosite CorporationLester Park 4th Division6401 E Superior StDuluth, MN 55804Client Project # 71089HIG Project # 2063285 www.historicalinfo.co	
--	---	--



Appendix G

Historical Topographic Maps



Historical Topographic Map Report | 2022

Order Number: 71089 Report Generated: 04/26/2022

Project Name: Lester Park Ph I ESA Project Number: J220163

> Lester Park 4th Division 6401 E Superior St Duluth, MN 55804

2 Corporate Drive Suite 450 Shelton, CT 06484 Toll Free: 866-211-2028 www.envirositecorp.com Envirosite's Historical Topographic Map Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Topographic Map Report includes a search of USGS historical topographic maps, dating back to the early 1900s.

TOPOGRAPHIC MAPS FOUND:

	Map Name:	Year:	Revision Year:	Scale:
1.	<u>Duluth</u>	1895	N/R	1:62500
2.	<u>Duluth</u>	1953	1969	1:24000
3.	<u>Duluth</u>	1953	1975	1:24000
4.	<u>Duluth</u>	1953	N/R	1:24000
5.	<u>Duluth</u>	1953	1993	1:24000
6.	<u>Duluth</u>	1953	1975	1:24000
7.	Lakewood	1953	1969	1:24000
8.	Lakewood	1953	N/R	1:24000
9.	<u>Duluth</u>	1953	N/R	1:62500
10.	Lakewood	1992	N/R	1:24000
11.	<u>Duluth</u>	2010	N/R	1:24000
12.	Lakewood	2010	N/R	1:24000
13.	<u>Duluth</u>	2013	N/R	1:24000
14.	Lakewood	2013	N/R	1:24000
15.	<u>Duluth</u>	2016	N/R	1:24000
16.	Lakewood	2016	N/R	1:24000
17.	<u>Duluth</u>	2019	N/R	1:24000
18.	Lakewood	2019	N/R	1:24000
19.	<u>Duluth</u>	2022	N/R	1:24000
20.	<u>Lakewood</u>	2022	N/R	1:24000

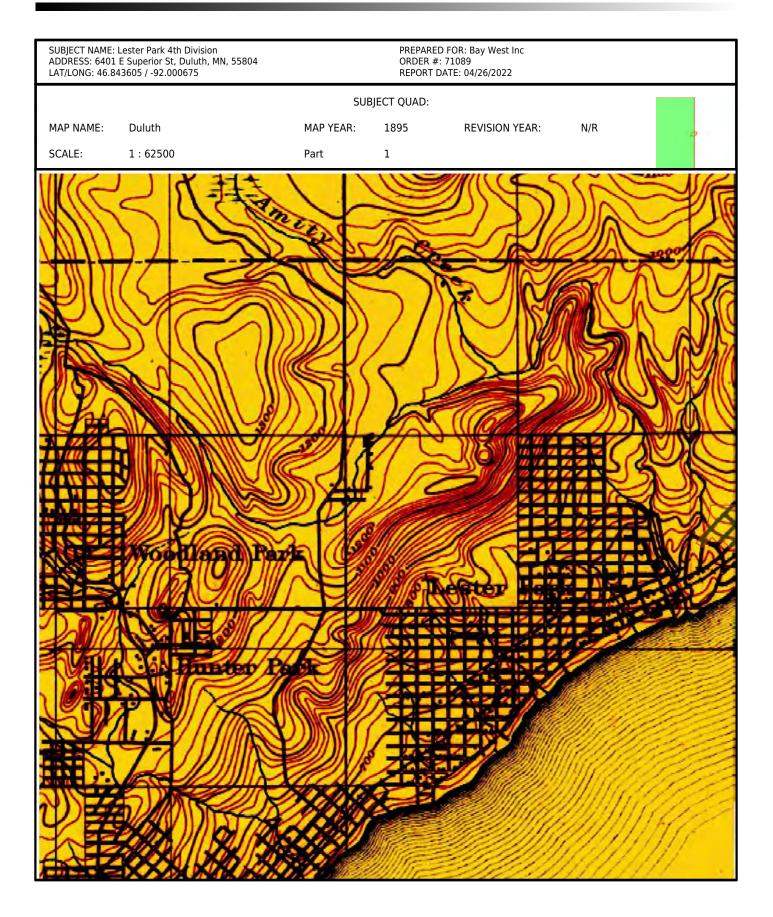
The USGS 7.5 minute series includes scales 1:24,000 / 1:25,000 / 1:31,680. The USGS 15 minute series includes scales 1:48,000 / 1:62,500 / 1:63,360. The USGS 30x60 minute series scale is 1:100,000.

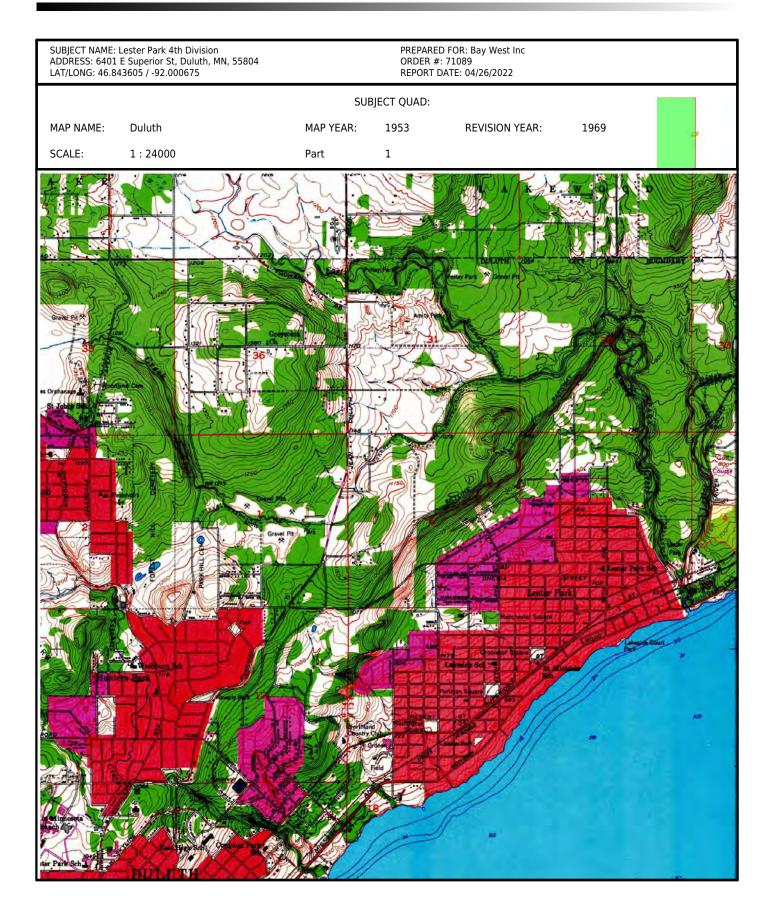
Disclaimer - Copyright and Trademark Notice

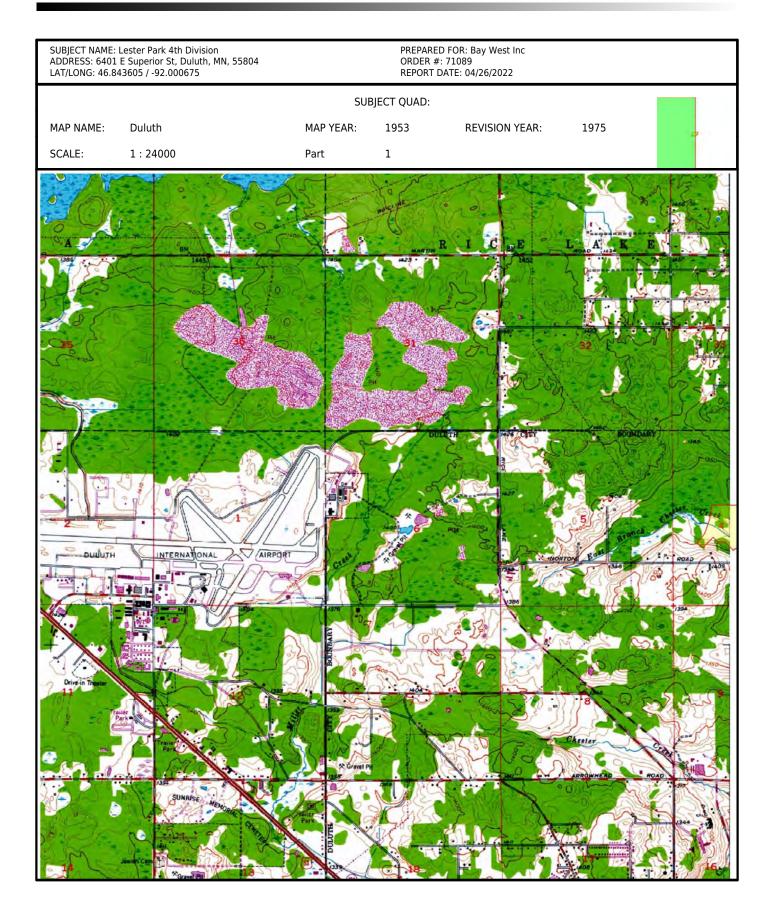
All information contained in this report are based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of Envirosite Corporation.

NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND Envirosite assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to Envirosite. Envirosite cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. Envirosite shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of Envirosite. Any damages shall be limited to the purchase price of the report.

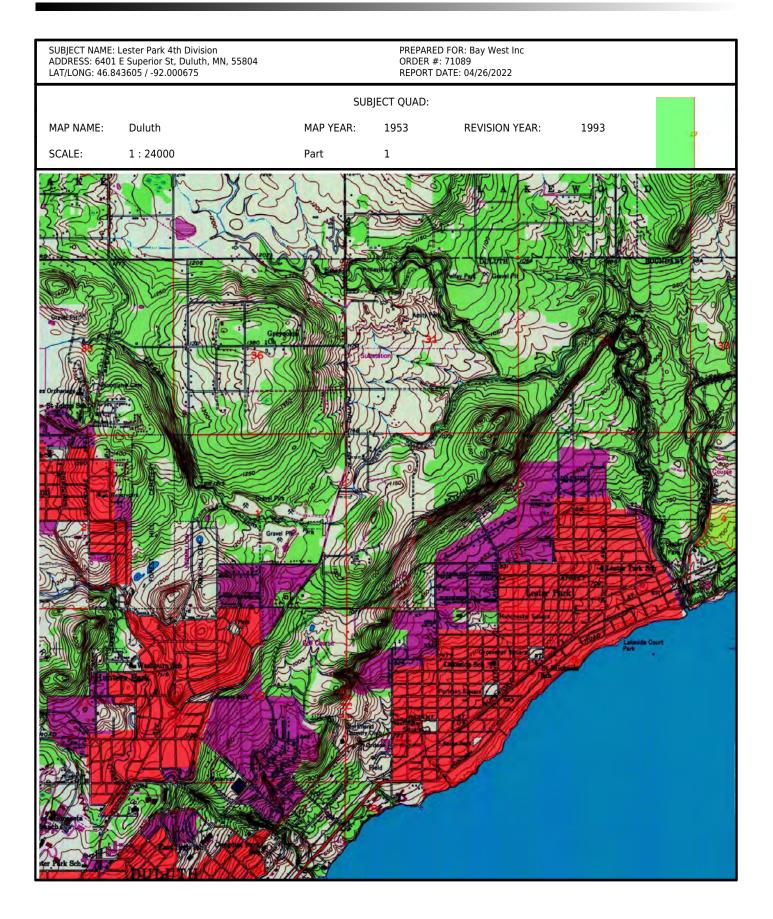
Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to Envirosite, and contain copyrighted material and trademarks of Envirosite. All other trademarks used herein are the property of their respective owners. All rights of Envirosite as to the Reports are reserved.

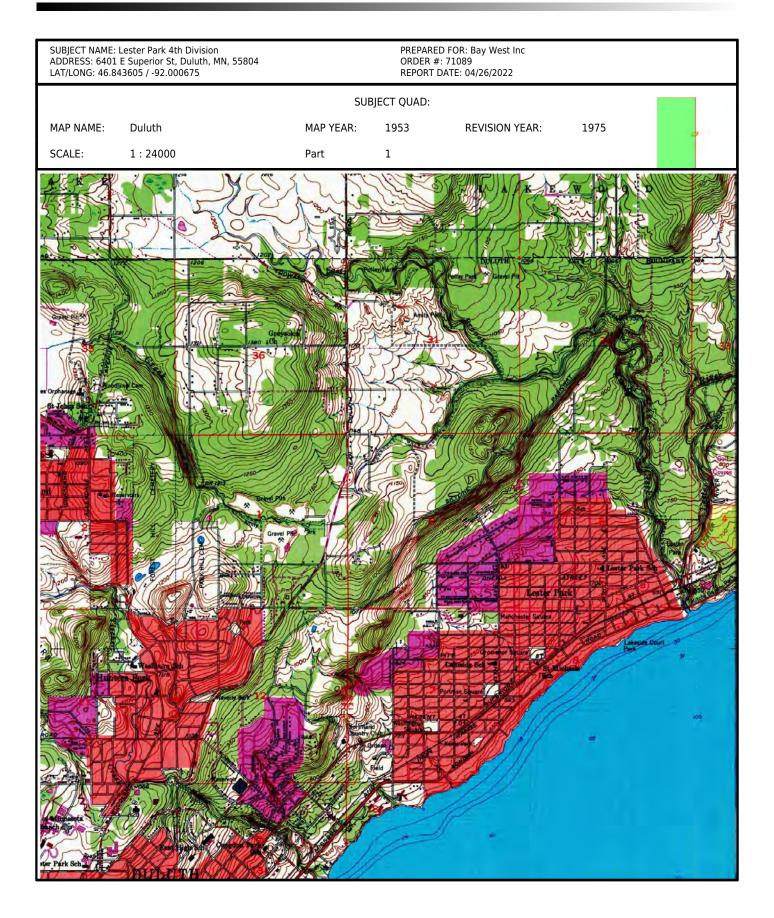




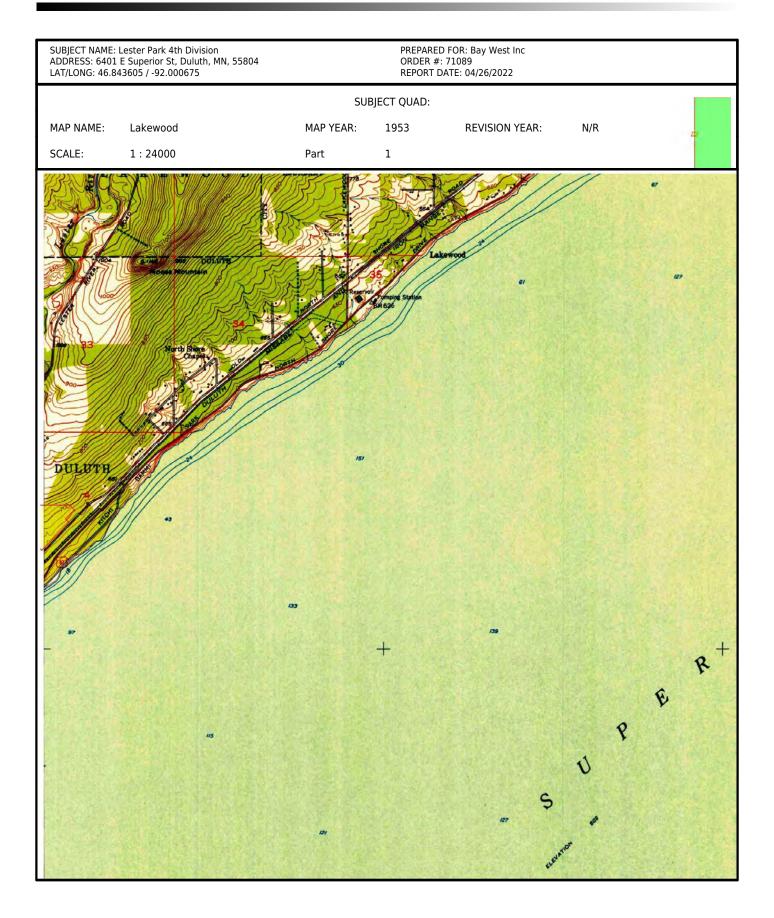


SUBJECT NAME: ADDRESS: 6401 LAT/LONG: 46.8-	Lester Park 4th Division E Superior St, Duluth, MN, 55804 43605 / -92.000675		PREPARED ORDER #: REPORT D	POR: Bay West Inc 71089 ATE: 04/26/2022				
SUBJECT QUAD:								
MAP NAME:	Duluth	MAP YEAR:	1953	REVISION YEAR:	N/R			
SCALE:	1:24000	Part	1					
			1					
			Field					
of stimesota				*				
ter Park Sch -	Thur the CO		/					

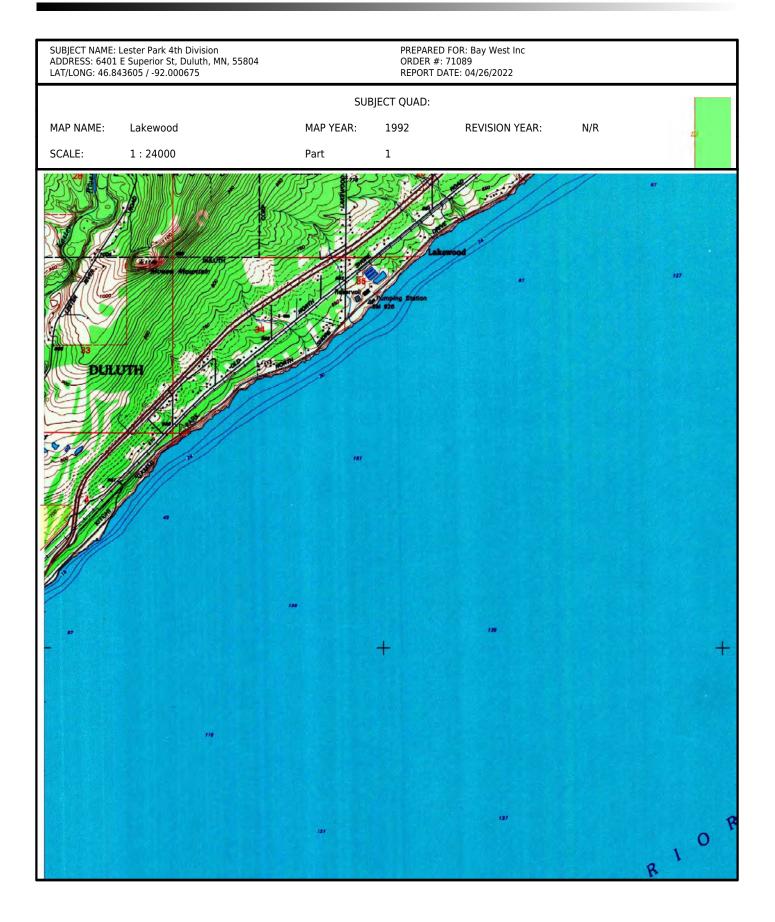


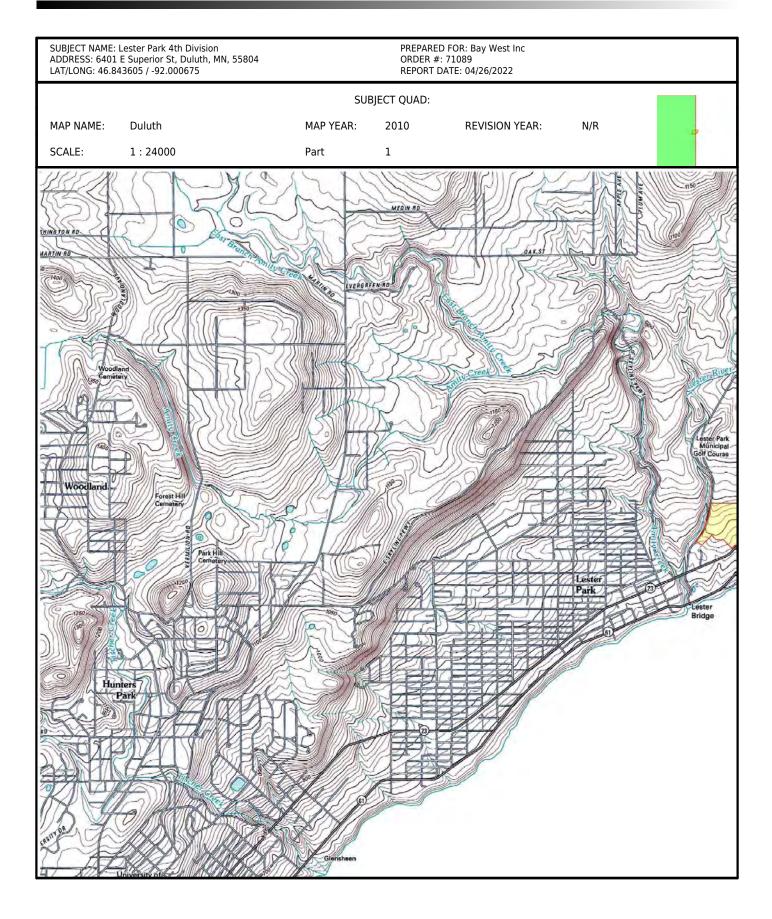


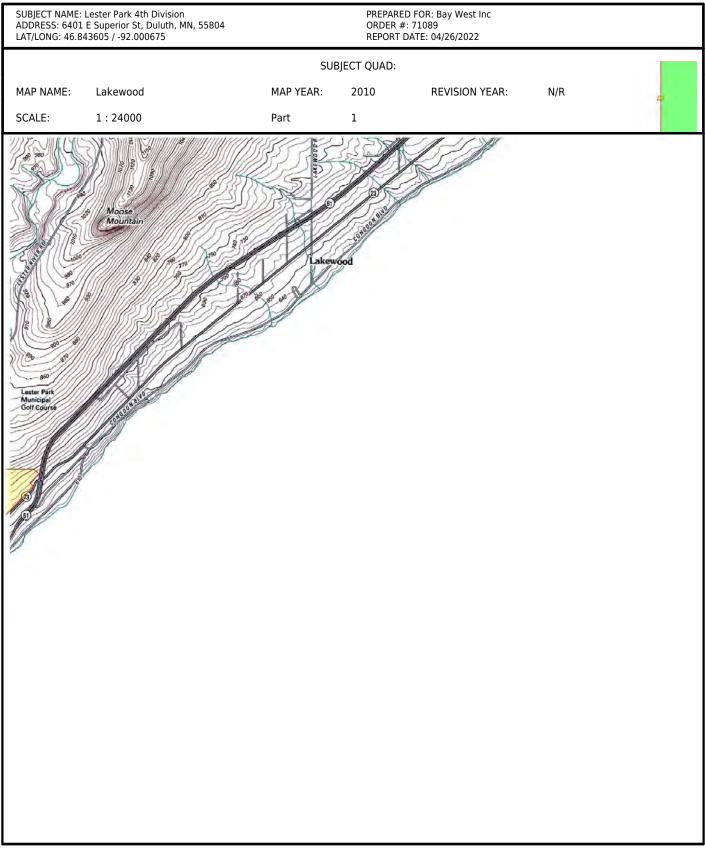
SUBJECT NAME ADDRESS: 6401 LAT/LONG: 46.8	: Lester Park 4th Division L E Superior St, Duluth, MN, 55804 43605 / -92.000675		PREPARED ORDER #: REPORT DA	FOR: Bay West Inc 71089 NTE: 04/26/2022			
SUBJECT QUAD:							
MAP NAME:	Lakewood	MAP YEAR:	1953	REVISION YEAR:	1969	17	
SCALE:	1:24000	Part	1				
			Among Siston	wood a			
ar .		A 3	+	33		₽ ⁺	
	73	21		S	U v v		

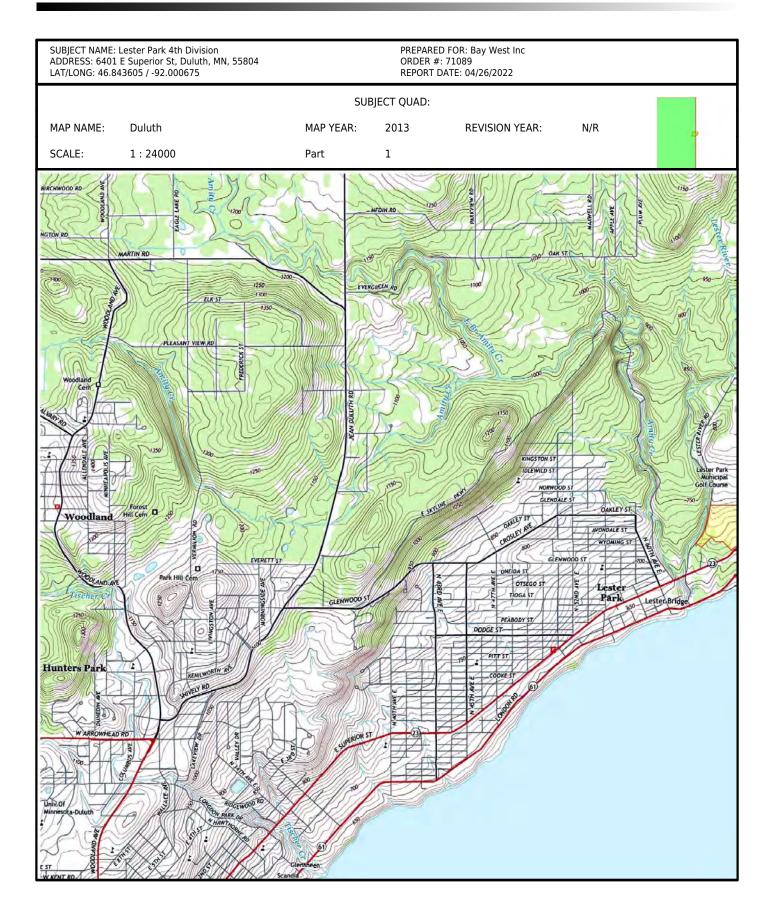


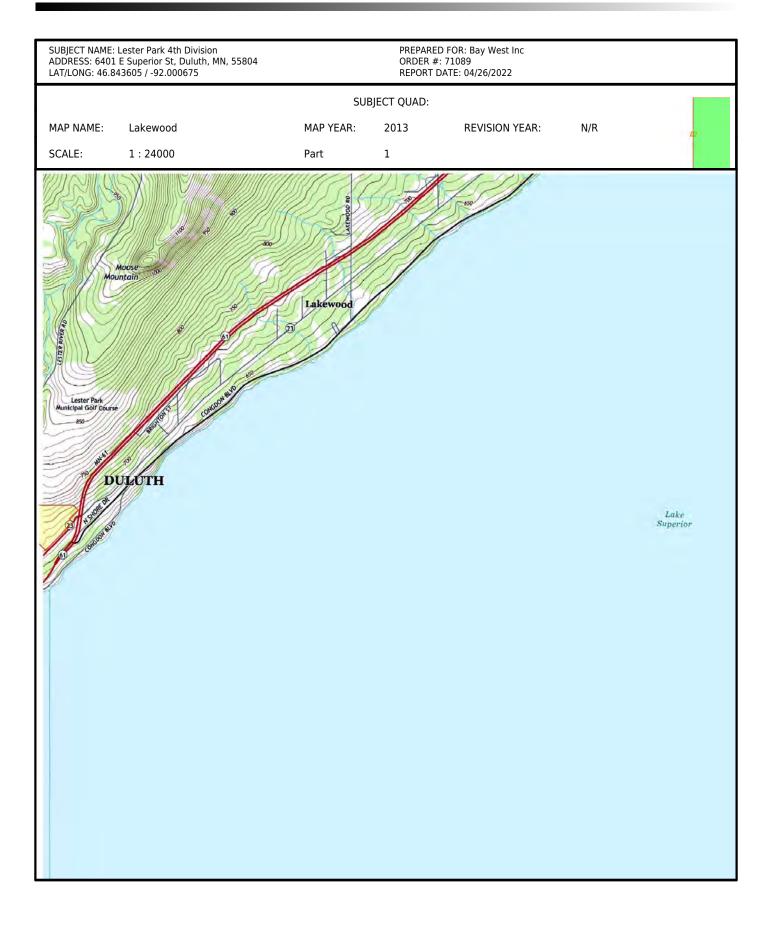
SUBJECT NAME: ADDRESS: 6401 LAT/LONG: 46.8	Lester Park 4th Division Le Superior St, Duluth, MN, 55804 43605 / -92.000675		PREPARED ORDER #: 7 REPORT DA	FOR: Bay West Inc 71089 NTE: 04/26/2022				
	SUBJECT QUAD:							
MAP NAME:	Duluth	MAP YEAR:	1953	REVISION YEAR:	N/R	5 7 -		
SCALE:	1:62500	Part	1					

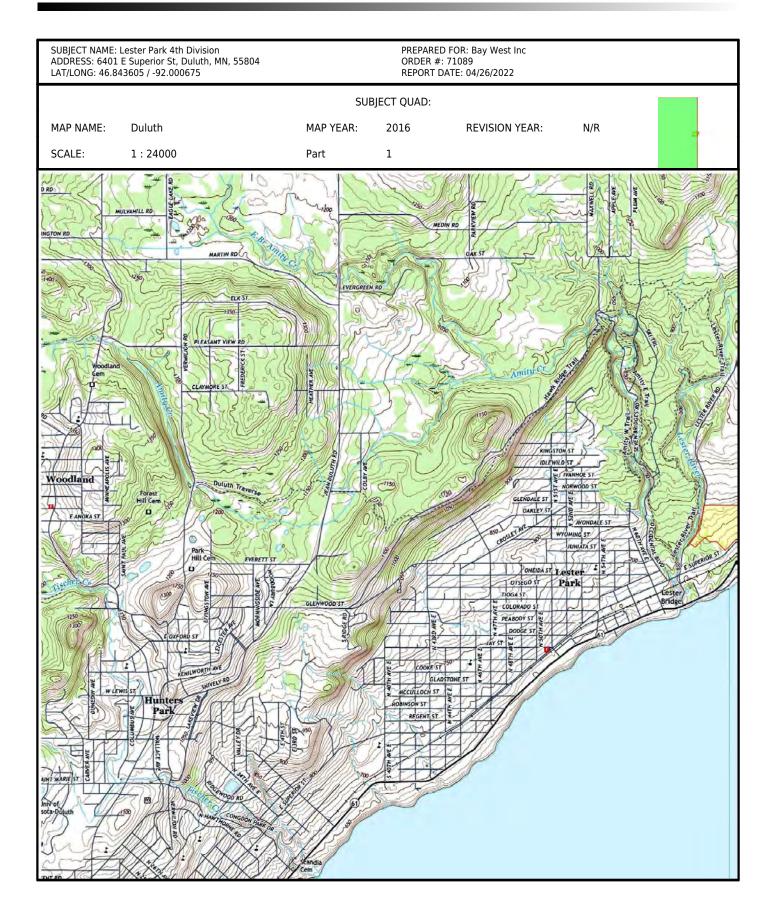


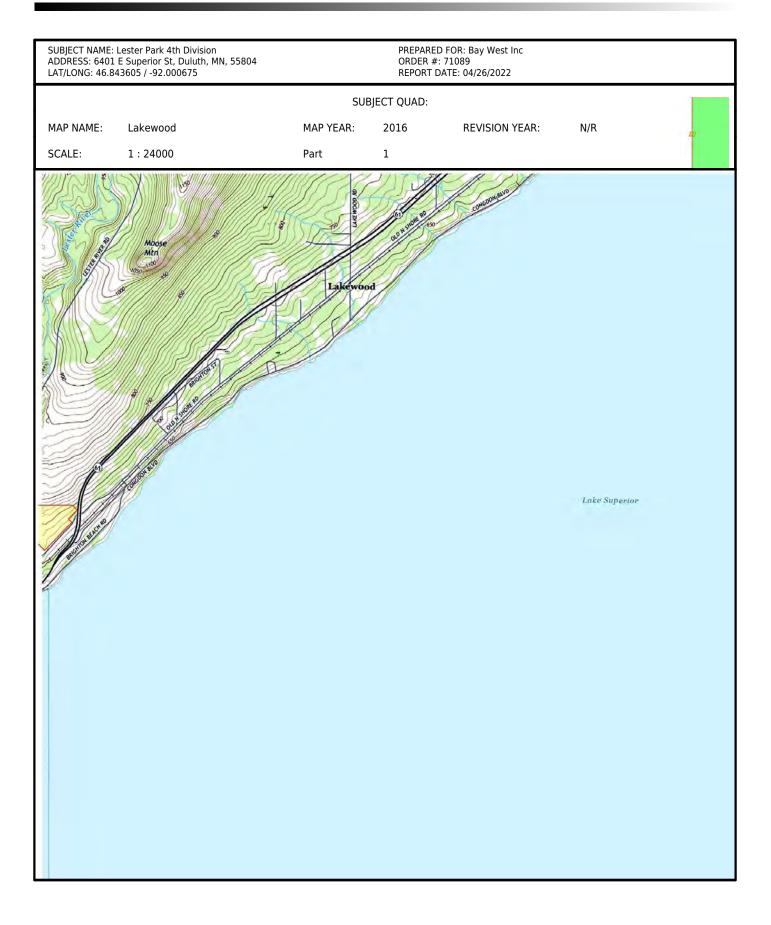


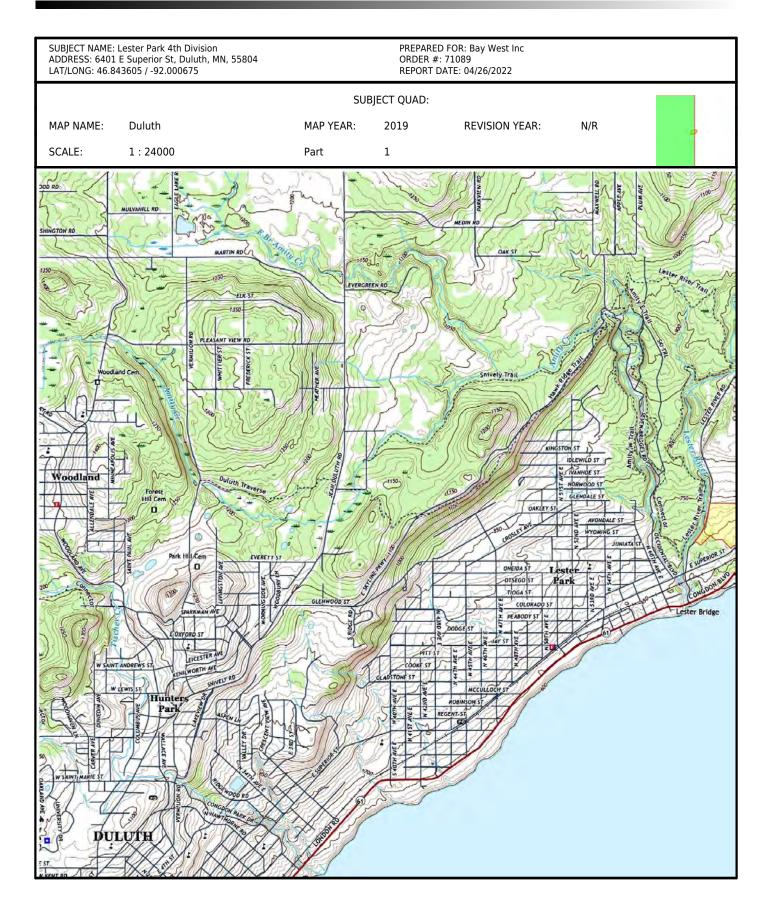






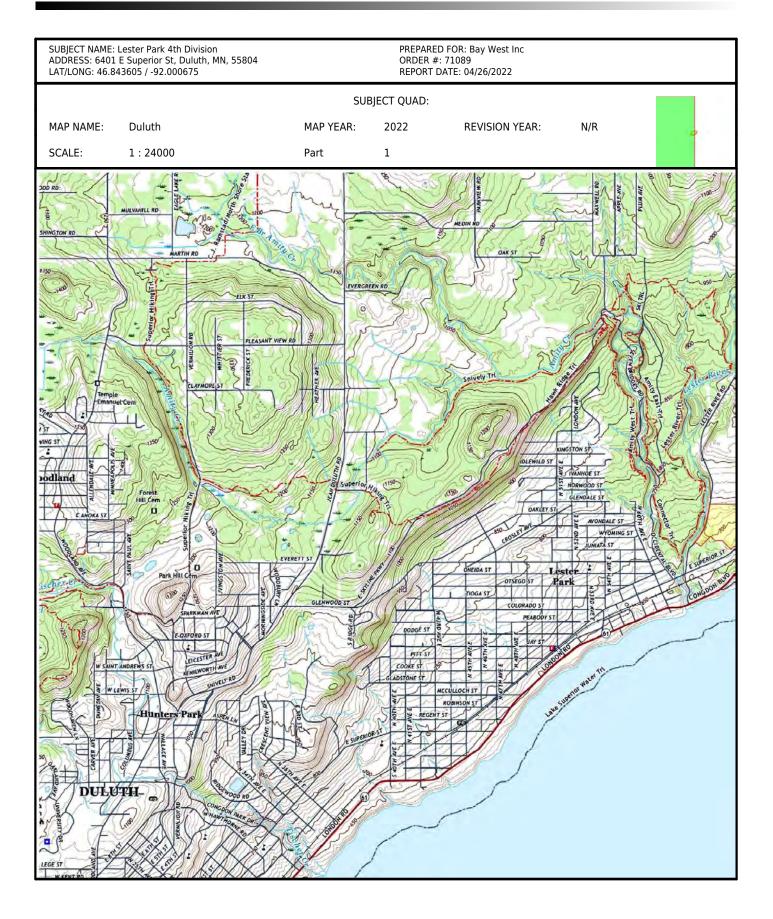


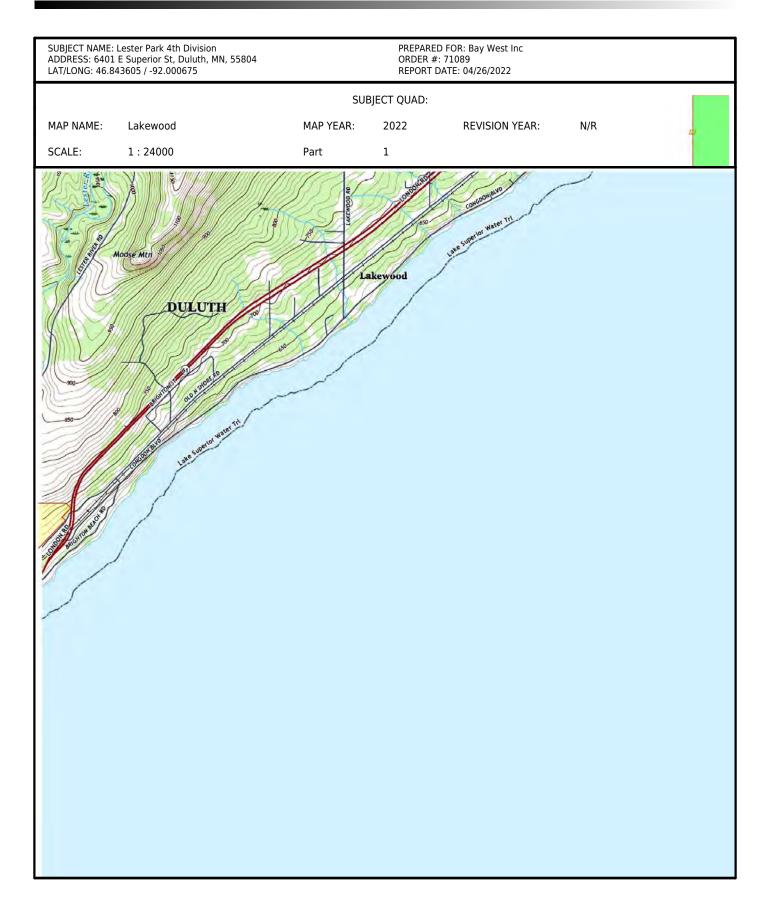






2022





2022



Appendix H

Historical City Directories



City Directory Report | 2022

Order Number: 71089

Report Generated: 05/03/2022 Lester Park 4th Division 6401 E Superior Street Duluth, MN 55804

2 Corporate Drive Suite 450 Shelton, CT 06484

Prepared for Envirosite Corporation By:

Property Archives

Toll Free: 866-211-2028 www.envirositecorp.com

City Directory Report

Envirosite's City Directory report is a screening tool designed to assist in evaluating a subject property and possible adjacent properties resulting from past activities. It includes a search and abstract of available city directories and cross reference directories at five year intervals or the closest available intervals. Public map sources are reviewed to determine possible adjoining properties to the front, back, left and right of the property.

RESEARCH SUMMARY:

The following research sources were consulted in the preparation of this report:

<u>SOURCE:</u>	<u>YEAR:</u>
Property Archives	2018, 2015, 2010, 2006, 2001, 1998
Duluth City Directory	1993, 1988, 1983, 1978, 1973, 1968, 1964, 1960, 1955, 1950, 1944, 1940, 1935, 1930,
	1925, 1920, 1915, 1910, 1905, 1902

Property Archives is a proprietary and comprehensive database of over one billion commercial and residential records, business names and occupant records for every city and town in the United States. This database is owned by Property Archives, LLC.

This report was prepared by Property Archives, LLC for Envirosite Corporation



SUBJECT PROPERTY:

6401 E Superior Street , Duluth, MN 55804

ADJOINING PROPERTIES:

1860 Lester River Rd, Duluth, MN

6300-6500 E Superior St, Duluth, MN

Disclaimer - Copyright and Trademark Notice

All information contained in this report is based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of Property Archives, LLC

NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND Property Archives, LLC assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to Property Archives. Property Archives cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. Property Archives shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of Property Archives. Any damages shall be limited to the purchase price of the report.

Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to Property Archives, and contain copyrighted material and trademarks of Property Archives. All other trademarks used herein are the property of their respective owners. All rights of Property Archives,LLC as to the Reports are reserved.

2018 6300-6500 E Superior St, Duluth, MN

BRUCE ALEXANDER	6303 E SUPERIOR ST
HEBL, LISA PA	6351 E SUPERIOR ST
BAUMBACH, CHRISTOPHER MD	6351 E SUPERIOR ST
MARK PETERSON	6353 E SUPERIOR ST
TIMOTHY WALSH	6353 E SUPERIOR ST

2015 6300-6500 E Superior St, Duluth, MN

BRUCE ALEXANDER	6303 E SUPERIOR ST
KARIN ALEXANDER	6303 E SUPERIOR ST
CLIFFORD ALEXANDER	6303 E SUPERIOR ST
CHRISTOPHER BAUMBACH	6351 E SUPERIOR ST
HUTCHINSON, DAVID A MD	6351 E SUPERIOR ST
BAUMBACH, CHRISTOPHER MD	6351 E SUPERIOR ST
KIRCHNER, ERIC MD	6351 E SUPERIOR ST
LESTER RIVER MEDICAL CLINIC	6351 E SUPERIOR ST
TIMOTHY WALSH	6353 E SUPERIOR ST
EDWARD STOKES	6353 E SUPERIOR ST
CAROL KOSBAB	6355 E SUPERIOR ST
FRANK INFELISE	6355 E SUPERIOR ST
JANET RINTALA	6355 E SUPERIOR ST

2010 6300-6500 E Superior St, Duluth, MN

CLIFFORD ALEXANDER	6303 E SUPERIOR ST
MARION HINZMANN	6304 E SUPERIOR ST
ERIC KIRCHNER	6351 E SUPERIOR ST
DAVID HUTCHINSON	6351 E SUPERIOR ST
DEB MITCHELL	6351 E SUPERIOR ST

2006 6300-6500 E Superior St, Duluth, MN

S Hinzmann	6302 E Superior St
Clifford D Alexander	6303 E Superior St
Fred A Hinzmann	6304 E Superior St

2001 6300-6500 E Superior St, Duluth, MN

S Hinzmann	6302 E Superior St
Clifford D Alexander	6303 E Superior St
1998 6300-6500 E Superior St, Duluth, MN	
S Hinzmann	6302 E Superior St

0 minzmann	0002	-	Ouperior	Οī
Clifford D Alexander	6303	Е	Superior	St
Fred A Hinzmann	6304	Е	Superior	St

6245 Pawielski Roxane L SI ® 525-6163 6302*Hinzmann Stacie J ® 525-1265

- 6303 Alexander Clifford D & Karin A 3E+ ® 525-4863
- 6304 Hinzmann Fredk A & Marion J EH" ® 525 3527

ROHWEDER MEMORIAL HWY INTERSECTS 6809 STATE OF MN (STGE)

1 of 1
Duluth City Directory
6300-6500 E Superior St, Duluth, MN
1993

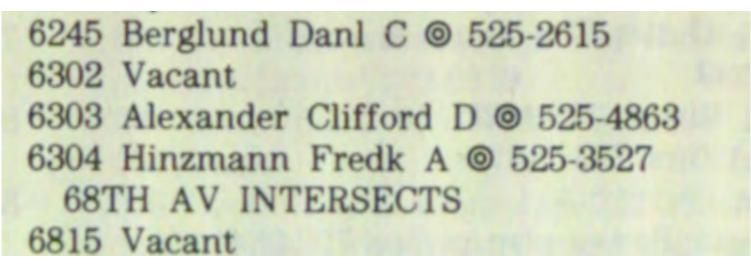


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth, MN
YEAR:	1988

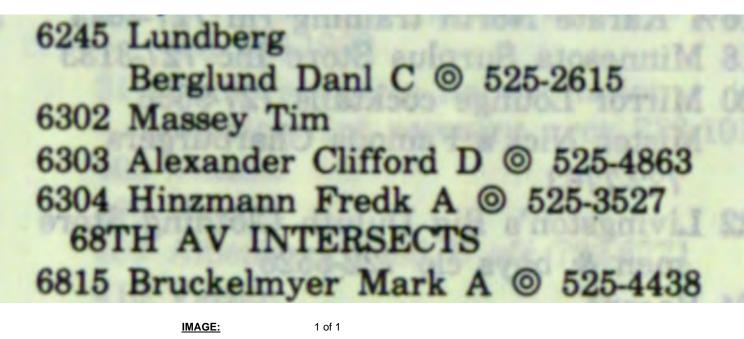


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth, MN
YEAR:	1983

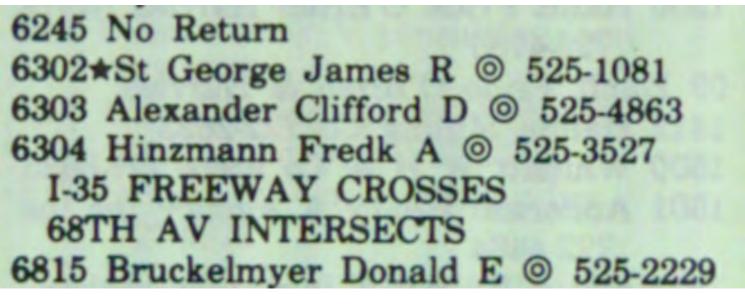


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth, MN
YEAR:	1978

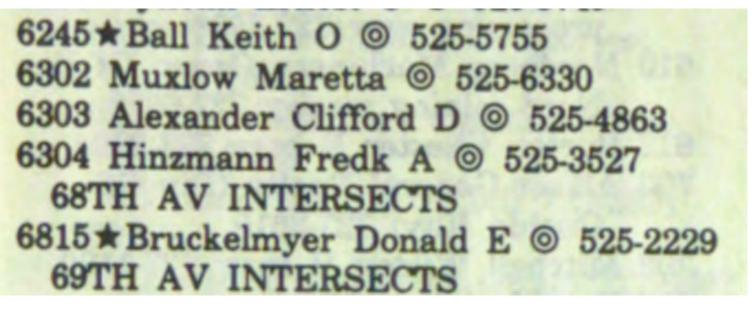


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth, MN
YEAR:	1973

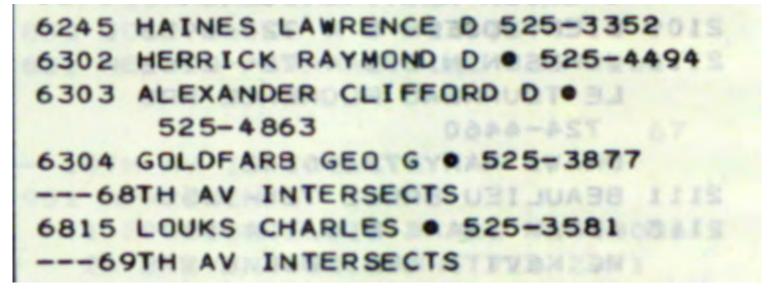
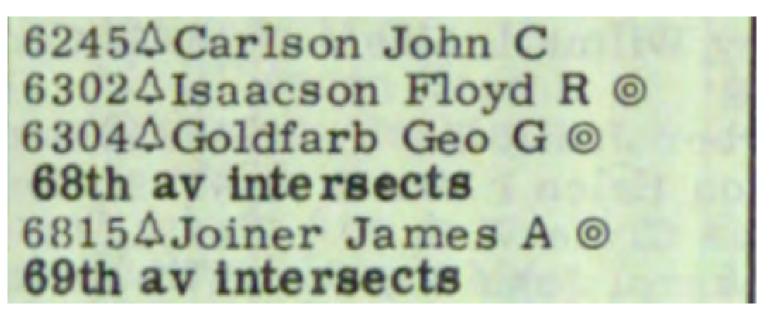


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth, MN
YEAR:	1968



<u>IMAGE:</u> <u>SOURCE:</u> <u>STREET:</u> <u>YEAR:</u> 1 of 1 Duluth City Directory 6300-6500 E Superior St, Duluth, MN 1964

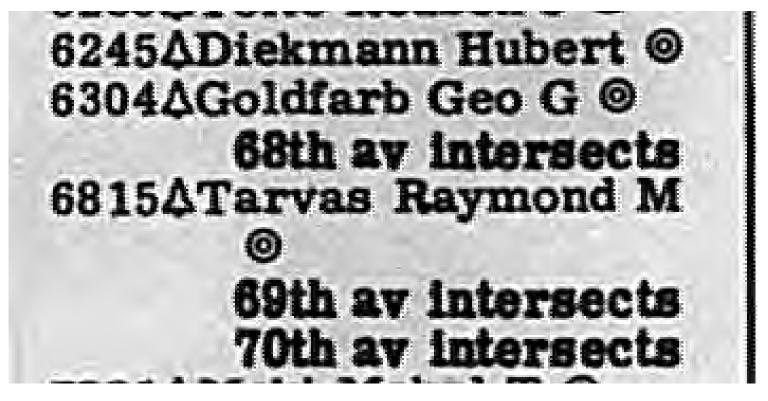


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	6300-6500 E Superior St, Duluth,
YEAR:	1960

SOURCE: STREET: Duluth City Directory 6300-6500 E Superior St, Duluth, MN

MN

<u>YEAR:</u>	1955
INFO:	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1950
INFO:	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1944
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1940
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1935
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1930
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1925
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1920
<u>INFO:</u>	No Address Listings (6300-6500)
<u>SOURCE:</u>	Duluth City Directory
<u>STREET:</u>	6300-6500 E Superior St, Duluth, MN
<u>YEAR:</u>	1915
<u>INFO:</u>	No Address Listings (6300-6500)
SOURCE:	Duluth City Directory

<u>STREET:</u> <u>YEAR:</u> INFO:	6300-6500 E Superior St, Duluth, MN 1910 No Address Listings (6300-6500)
<u>SOURCE:</u> <u>STREET:</u> <u>YEAR:</u> INFO:	Duluth City Directory 6300-6500 E Superior St, Duluth, MN 1905 No Address Listings (6300-6500)
<u>SOURCE:</u> <u>STREET:</u> <u>YEAR:</u> INFO:	Duluth City Directory 6300-6500 E Superior St, Duluth, MN 1902 No Address Listings (6300-6500)

2018: Lester River Rd, Duluth, MN

<u>2010.</u> Lester River Ru, Duluti, Min	
MENS 18 HOLE GOLF	1860 LESTER RIVER RD
2045. Looter Diver Del Duluth MN	
2015: Lester River Rd, Duluth, MN	
MENS 18 HOLE GOLF	1860 LESTER RIVER RD
LESTER PARK GOLF COURSE	1860 LESTER RIVER RD
2010: Lester River Rd, Duluth, MN	
Paul Schintz	1860 Lester River Rd
Lester Park Golf Course	1860 Lester River Rd
Lester Park Golf Course Mens 18 Hole Golf	1860 Lester River Rd 1860 Lester River Rd

Shelly Macdonald	1860 Lester River Rd
Paul Schintz	1860 LESTER RIVER RD
Jud Crist	1860 Lester River Rd
LESTER PARK GOLF COURSE	1860 LESTER RIVER RD
MENS 18 HOLE GOLF	1860 LESTER RIVER RD

2001: Lester River Rd, Duluth, MN

Lester Park Golf Club	1860 Lester River Rd
1998: Lester River Rd, Duluth, MN	
Shelly Macdonald	1860 Lester River Rd
Jud Crist	1860 Lester River Rd

LESTER RIVER RD -FROM JCTN OF 61ST AV E AND E SUPERIOR ST NORTH

 ZIP CODE 55804
 E SUPERIOR ST INTERSECTS
 1821 LESTER PARK LESTER PARK NATURE TRAIL
 342 LAKEVIEW AMERICAN LEGION CLUB NO 342 clubs
 1860 LESTER PARK GOLF CLUB LUNCH ROOM 525 1400 LESTER PARK MUNICIPAL GOLF COURSE 525 3018
 1860 Vacant
 1877 Johnson Dennis D & Joycelyn E SH"

525 2402

IMAGE:1 of 1SOURCE:Duluth City DirectorySTREET:Lester River Rd, Duluth, MNYEAR:1993

72 LESTER RIVER RD -FROM JUNCTION OF 61ST AND 63D AVS E NORTH
ZIP CODE 55804 1860 Lester Park Golf Club Lunch Room 525-1400 Lester Park Municipal Golf Course 525-1400 ★Alexander Roy A 1877 Johnson Dennis D © 525-2402

IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1988

1 100000 00000 000 00000000000000000000
LESTER RIVER RD -FROM
JUNCTION OF 61ST AND 63D AVS E
NORTH SOOLASSA OF Stadas withow arts
ZIP CODE 55804
NUMBERED IRREGULAR
1877 Johnson Dennis D @ 525-2402
1889 Champion Children's Home Inc
525-1165
Champion Laurence © 525-1165
Burke Betty L © 525-3075
1860 Lester Park Golf Club Lunch Room
525-1400
Lester Park Municipal Golf Course
525-1400
Digle Jeff GERGTVI VA YAWOM
Lakeview American Legion Club No
342 525-9957 O C adol aibraC 1928
2170 Marshall Lyman T Jr
IMAGE: 1 of 1

IMAGE:
SOURCE:
STREET:
YEAR:

1 of 1 Duluth City Directory Lester River Rd, Duluth, MN 1983

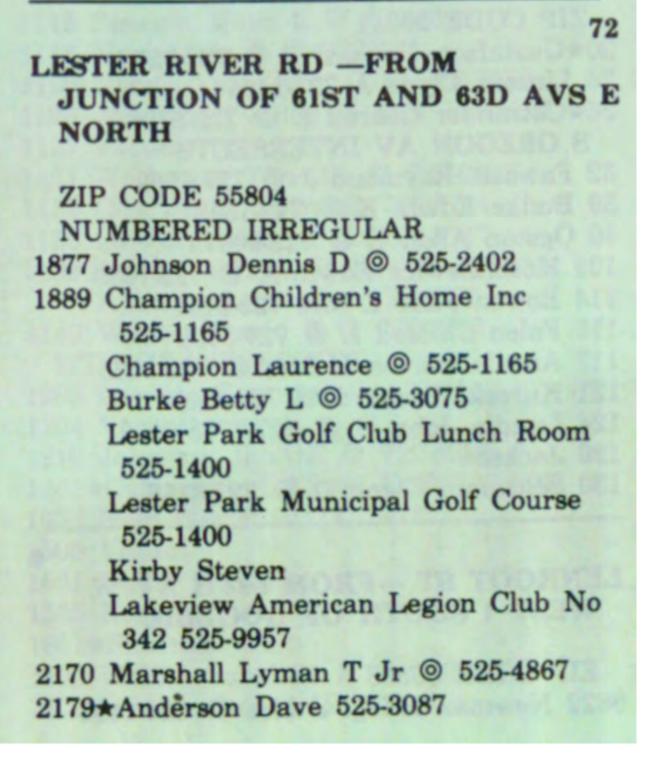


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1978



IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1973

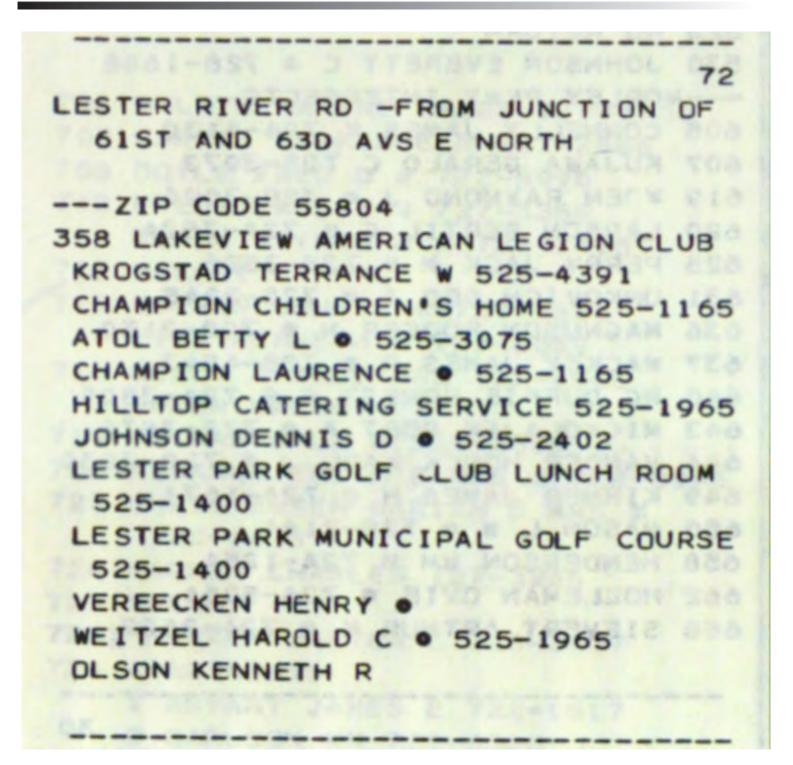


IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1968



IMAGE:	1 of 1
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1964

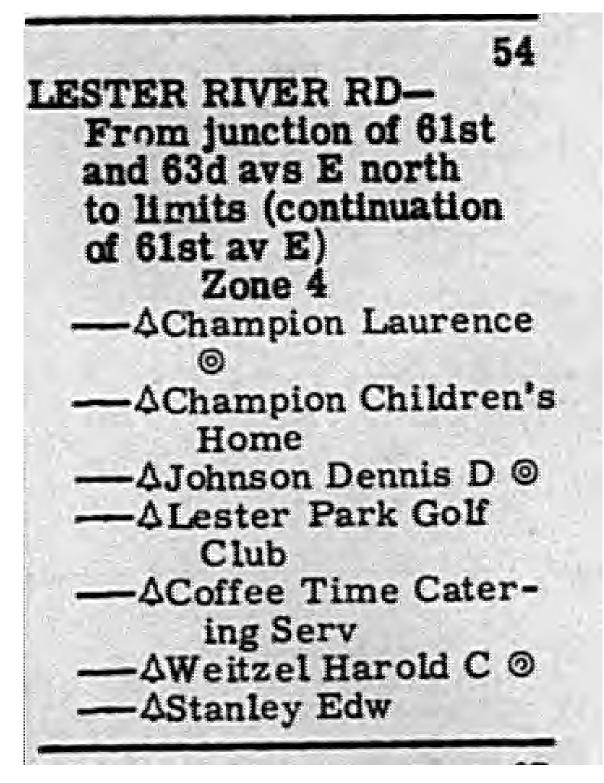


IMAGE: SOURCE: STREET: YEAR: 1 of 1 Duluth City Directory Lester River Rd, Duluth, MN 1960

SOURCE: STREET: YEAR: INFO: Duluth City Directory Lester River Rd, Duluth, MN 1955 Street Not Listed

<u>s</u> Y	OURCE: STREET: YEAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1950 Street Not Listed
<u>s</u> Y	<u>SOURCE:</u> STREET: <u>'EAR:</u> NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1944 Street Not Listed
<u>s</u> Y	<u>SOURCE:</u> STREET: 'EAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1940 Street Not Listed
<u>s</u> Y	SOURCE: STREET: YEAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1935 Street Not Listed
<u>פ</u> צ	BOURCE: BTREET: YEAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1930 Street Not Listed
<u>s</u> Y	<u>SOURCE:</u> STREET: <u>'EAR:</u> NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1925 Street Not Listed
<u>s</u> Y	BOURCE: BTREET: YEAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1920 Street Not Listed
<u>פ</u> צ	SOURCE: STREET: 'EAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1915 Street Not Listed
<u>s</u> Y	SOURCE: STREET: YEAR: NFO:	Duluth City Directory Lester River Rd, Duluth, MN 1910 Street Not Listed

SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1905
INFO:	Street Not Listed
SOURCE:	Duluth City Directory
STREET:	Lester River Rd, Duluth, MN
YEAR:	1902
INFO:	Street Not Listed



Appendix I

Property Photographic Log



Phase I Environmental Site Assessment Lester Park Redevelopment Duluth, Minnesota



Photo 1: Property facing south from northwest



Photo 2: Empty drums on west side of Property





Photo 3: Household waste on west side of Property

Photo 4: Homeless encampment on west side of Property





Photo 5: Property facing northeast from southwest



Photo 6: Fairway path along southern portion of Property



Photo 7: View of south-adjoining facility (3533 E Superior St)



Photo 8: View of south-adjoining facility (3531 E Superior St)





Photo 9: Fairway path along east side facing north



Photo 10: Stream crossing Property on east side facing east



Photo 11: View from east side of Property facing southeast



Photo 12: View from near northeast Property corner facing south





Photo 13: View from northadjoining property (golf storage building) facing south



Photo 14: View of south-adjacent property facing east



Photo 11: View of west-adjacent property from west side of Property



Photo 12: View of easternadjacent property facing northeast



Appendix J

Resumes





Training/Certifications

- 40-Hr OSHA Training w/Current Refresher
- Registered Professional Geologist, MN #40404
- MN Certified Asbestos Inspector, #AI9055
- MN Certified Asbestos Management Planner, #AM9055
- Asbestos Inspector Training and Annual Refreshers
- Asbestos Management Planner Training and Annual Refresher
- USACE Construction Quality
 Management for Contractors
- DOT HazMat Training (49 CFR 172.704)
- FEMA NIMS ICS Trainings (100, 200, 301, 700)
- First Aid/CPR Certified

Education

• BS Geology, 1993

Professional Experience

- 24 years' experience
- 8 years with Bay West

Rick Van Allen, PG

PROJECT MANAGER/GEOLOGIST

OVERVIEW

Mr. Van Allen, PG, is a certified Professional Geologist with 24 years of project management, technical, compliance, and site assessment experience. He has a broad environmental background, is well versed in the Minnesota VIC and PBP Programs, guidance, and requirements, and has successfully managed numerous projects under both programs.

TECHNICAL EXPERIENCE

Mr. Van Allen has prepared asbestos and lead-based paint assessment bid specifications to ensure compliance with demolition and renovation regulatory requirements. Mr. Van Allen developed air monitoring plans and conducted real-time and time-weighted average air monitoring for asbestos, particulates, and metals in air to ensure compliance with OSHA and NIOSH S&H requirements and guidelines. He performed all aspects of planning, including facility inspection, product research, regulation review, and preparation of SPCC plans. He also conducted waste characterization sampling, hazard categorization, and completed waste profile documentation to obtain approval for disposal of waste at appropriate facilities.

PROJECT EXPERIENCE

<u>Project Manager, Hobb's Barbeque, Minneapolis, MN, MPCA</u> – Completed a Phase I ESA for the purchaser of this closed petroleum leak site. Historical use of the site as a scrap yard resulted in lead contamination in surface soil. Prepared a RAP that addressed the lead and petroleum contamination to facilitate redevelopment of the property. Wrote a DEED cleanup grant application resulting in an award of over \$100,000 in grant funding for the project.

<u>Technical Lead/Field Team Leader, Multi-acre Property Site Assessment, City</u> <u>of St. Louis Park, MN</u> – Developed a work plan, coordinated subcontractors, and served as field lead to assess a multi-acre property in St. Louis Park contaminated with lithium process waste. Also scoped and assisted with completion of a magnetometer survey on the same property to assess the site for buried containers and debris.

<u>Project Manager, Former Pilgrim Cleaners, Brooklyn Park, MN, MPCA</u> – Over several years Bay West completed investigation and source remediation activities at this long-time dry-cleaning facility. As the MPCA looks to delist the site, Management of final risk assessment work on the project which includes directing soil-gas sampling to evaluate the site's vapor intrusion risk to neighboring residential properties and surface water quality issues associated with storm sewer discharges of impacted groundwater to a nearby small lake.

<u>Limited Site Investigations, Central Corridor Light-Rail Sites, St. Paul, MN</u> – The MPCA hired Bay West to conduct Limited Site Investigations at four petroleum release sites along the proposed Central Corridor Light Rail route. Mr. Van Allen managed these four investigations, which included directing the utility clearance, receptor survey, soil probe, and vapor instruction assessment activities, then preparing LSI Reports. The MPCA issued closure letters for all four sites after a single round of assessment work.

<u>Field Lead, Former Scrap Yard and Grain Facility, St. Paul, MN</u> – Prepared an FS and RAP Plan to remediate this 20+ acre facility located along the Mississippi River in St. Paul. This multi-million-dollar project resulted in successful remediation of the site to residential land use standards.



Rick Van Allen, PG (continued)

Primary Role Qualifications

Mr. Van Allen frequently performs project management activities on projects. He has experience with the following:

- Compiling work plans and field sampling plans;
- Performing vendor subcontracting per requirements specified within the MPCA Contractor and Subcontracting Purchasing Manual and documenting of contracting procedures;
- Corresponding with laboratories to ensure delivery of proper sample containers, appropriate analysis, proper pricing, and timely reporting;
- Scheduling field work and preparing equipment and staff for field work;
- Compiling invoices and budget status reports;
- Compiling project completion reports and annual monitoring reports.

<u>Project Manager, Arsenic Removal, Various Residential Properties,</u> <u>Minneapolis, MN</u> – Prepared detailed work plans and completed extensive soil sampling, oversight, direction, administrative support, and documentation of arsenic removal activities on 66 residential properties in Minneapolis, MN.

<u>Technical Lead/Field Team Leader, Multi-acre Property Site Assessment, St.</u> <u>Louis Park, MN</u> – Developed a work plan, coordinated subcontractors, and served as field lead to assess a multi-acre property in St. Louis Park contaminated with lithium process waste. Also scoped and assisted with completion of a magnetometer survey on the same property to assess the site for buried containers and debris.

<u>Due Diligence, Various Phase I ESAs</u> – Completed over 100 due diligence projects for numerous private clients. Tasks associated with the Phase I ESAs included performing site reconnaissance, researching regulatory databases and historical records, contacting and interviewing property and regulatory representatives, writing technical reports, conducting asbestos inspections, and conducting noise surveys. Follow-up tasks with Phase II Investigations involved advancing soil probes and/or installing wells, collecting soil-gas samples, preparing Phase II Investigation reports, and working with the MPCA to obtain appropriate liability assurance letters, as applicable for each site.

<u>Twin Cities Army Ammunition Plant (TCAAP) Arden Hills, MN</u> – Mr. Van Allen prepared a complex Field Sampling Plan (FSP) and QAPP to direct field assessment activities at TCAAP on behalf of a private developer client. After a rigorous approval process of the planning documents by Army, EPA Region 5, and the MPCA, Mr. Van Allen directed the subsequent field effort. The fieldwork included coordinating and overseeing 2 simultaneous drilling crews and associated environmental staff as they completed more than 300 borings and collected more than 600 soil, groundwater, and soil-gas samples. A multivolume environmental assessment report was prepared summarizing the history of the TCAAP transfer property, and the results of the assessment work completed, which included conclusions and recommendations based on the proposed land use.

<u>Project Manager, Fort Bragg Multi-Site Environmental Investigation</u> – Mr. Van Allen managed the investigation at multiple sites on Fort Bragg located in Fayetteville, NC. Four sites were UST- or spill-related petroleum releases that required hollow stem auger drilling and monitoring well installation and sampling to define the extent and magnitude of the releases. Three out of the four sites were successfully closed in the State's petroleum program within one year. The third UST site qualifies for closure but was not funded under the contract. Mr. Van Allen also developed and implemented a work plan and QAPP to conduct a Remedial Investigation and Feasibility Study on a pesticide release on the former installation golf course. A significant portion of the scope of work included assessing four former firing and bombing ranges on the installation for the presence of unexploded ordnance using EM-61 geophysical methods and visual surveys.

<u>Brownfield Redevelopment, Two Harbors, MN</u> – Mr. Van Allen managed the work plan, RAP development and implementation of soil response actions at the site of the Castle Danger Brewery in Two Harbors, MN. The property was the location of former railroad activities and demolished buildings with asbestos and lead-impacted soil that required excavation and off-site disposal to facilitate construction of the new brewery and subsequent expansion. The project was partially funded through the successful award of site investigation and cleanup grant funding from MN DEED and was nominated twice for Minnesota Brownfields awards in the Small City Impact category.





Training/Certifications

• 40-hour HAZWOPER Training w/Current Refresher

Education

- MS, Geological Sciences, State University of New York at Buffalo, 2009
- BS, Geology, Wheaton College, IL, 2006

Registrations & Licenses

- PG (#53949/MN)
- Asbestos Inspector (#AI12856/MN)

Professional Experience

- 14 years of experience
- 4 years with Bay West

Primary Role Qualifications

Mr. Nimlos has 10 years' experience performing environmental field work and project management activities including:

- Geophysical and laboratory analytical sample data collection and interpretation;
- Groundwater sampling using multiple technologies;
- Compiling work plans and field sampling plans;
- Scheduling field work and preparing equipment and staff for field work;
- Compiling invoices and budget status reports; and
- Compiling project completion reports and annual monitoring reports.

Erik Nimlos, P.G.

PROJECT MANAGER/GEOLOGIST

OVERVIEW

Mr. Nimlos has experience performing environmental field work including data collection, water quality and soil sampling and analysis. He has conducted all aspects of Phase I ESAs including historical data research and analysis, site reconnaissance and document preparation. He has served as field lead/site supervisor on numerous Phase II investigations on petroleum, metals, and solvent contaminated sites. Additional experience includes oversight of water well installation, brownfield redevelopment construction, groundwater and soil vapor remediation system installation, and pre-demolition building surveys.

TECHNICAL EXPERIENCE

Mr. Nimlos has performed and managed Phase I ESAs and desktop property transaction screening, LECAs, Phase II ESAs, LSIs, RIs, and DRAPs for petroleum and chlorinated solvent investigations at multiple sites across Minnesota and throughout the US. He has assessed all types of properties including multi-unit residential properties, brownfields, commercial and industrial buildings, oil terminals, landfills, and large highway corridors. He has compiled and analyzed data from soil, groundwater, soil gas, and geological databases.

PROJECT EXPERIENCE

<u>Scientist II, TH95 Corridor Phase II ESA, Bayport, MN</u> – In preparation of a new storm sewer and traffic signals to be constructed within the ROW, Bay West completed a Phase II to assist MnDOT with soil and groundwater management decisions during construction. 13 sites were reviewed and ranked to identify potentially contaminated properties. Bay West then advanced 9 soil borings at locations throughout the Project Area to determine the presence and magnitude of soil and groundwater contamination. Mr. Nimlos was responsible for preparing and managing the writing and production of the Phase II ESA report and deliverables.

<u>Project Geologist (Terracon), VIC/PBP Program Enrollment, Park Plaza Hotel,</u> <u>Bloomington, MN</u> – During property acquisition, Mr. Nimlos provided duediligence services for the buyer. Services included Phase I & II ESAs, VIC/PBP application, past and proposed actions letters, additional assessment for soil vapor and indoor air, and requests for file closure and no association assurances.

<u>Senior Staff Geologist (Terracon), Excavation Report, Holiday Station #218 –</u> <u>Burnsville, MN</u> – Project work included oversight for remedial efforts during former storage tank removal and new tank upgrades. Remedial actions included soil screening, soil excavation oversight and vapor barrier installation oversight. Report was prepared for client and the Minnesota Pollution Control Agency detailing excavation and requesting regulatory spill closure.

<u>Senior Staff Geologist (Terracon), Due-diligence Services, undisclosed</u> <u>commercial properties – La Crosse, WI</u> – Project work included site reconnaissance and Phase I ESA report for three adjacent properties in former industrial area. Phase II subsurface ESA investigation oversight involved work plan preparation, sub-contractor coordination and reporting on findings and conclusions. Wisconsin Department of Natural Resources was contacted for regulatory guidance and assistance.



<u>Geologist (AKRF, Inc.), New City Plaza Brownfields Site – New City, NY</u> – Project work included contaminant plume delineation through groundwater sampling, sub-slab depressurization maintenance, sub-slab soil vapor sampling, new groundwater monitoring well installation and soil screening. Groundwater sampling data and plume delineation investigation results and recommendations for additional remediation work were reported to the client and NYSDEC.

<u>Staff Professional (Antea Group), On-going Remedial Investigation, BP Brooklyn Terminal –</u> <u>Greenpoint-Brooklyn, NY</u> – Project work included remediation system O & M for a multi-well pump-and-treat system; remedial investigation including soil characterization and soil vapor sampling; reporting including quarterly remedial reports to the NYSDEC and free petroleum product in soil estimation.

<u>Geophysical Technician (NAEVA Geophysics), Former Exxon Port Oil Terminal – Mount</u> <u>Vernon, NY</u> – Project work included subsurface utility delineation using radio-frequency utilitylocating instruments and ground-penetrating radar. Subsurface petroleum tank basins and infrastructure were mapped using EM-61 electromagnetic survey. Figures were created showing electromagnetic potential across the site using Surfer, AutoCAD, and Geosoft Oasis Montaj.