DRAFT Phase I Environmental Site Assessment



Shady Oak Properties

4312 Shady Oak Road Minnetonka, Minnesota 55343

Prepared for:

Ron Clark Construction

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Table of Contents

1.0	SUMM	ARY 1-1
2.0	INTRO	DUCTION
	2.1 2.2 2.3 2.4 2.5 2.6 2.7	Purpose2-1Scope2-1Deviations2-2Limitations and Exceptions2-3Significant Assumptions2-3Special Terms and Conditions2-3User Reliance2-3
3.0	SITE D	ESCRIPTION
	3.1 3.2 3.3	Use of Subject Property
4.0	USER I	PROVIDED INFORMATION
	4.1 4.2 4.3 4.4	Reason for Performing Phase I ESA4-1Owner, Property Manager and Occupant Information4-1Title Record Information4-1User Questionnaire4-14.4.1Environmental Liens or Activity and Use Limitations4-14.4.2Specialized Knowledge4-14.4.3Commonly Known or Reasonably Ascertainable Information4-14.4.4Valuation Reduction for Environmental Reasons4-1
5.0	RECOR	2DS REVIEW
	5.1	Standard Environmental Record Sources5-15.1.1Subject Property5-15.1.2Surrounding Properties5-2
	5.2	Additional Record Sources5-85.2.1Hennepin County Tax Information5.2.2Local Building Records Review5-9
	5.3	Historical Use Information5-95.3.1Aerial Photographs5.3.2City Directories5.3.3Historical Maps5.3.4Fire Insurance Maps
	5.4	Previous Environmental Reports 5-13 5.4.1 2007 Phase I ESA Report 5-14 5.4.2 2014 Phase I ESA Report 5-14 5.4.3 2014 Phase II ESA Report 5-15 5.4.4 2016 Phase I ESA Report 5-16 5.4.5 2016 Supplemental Soil Investigation Report 5-18



Table of Contents (Cont.)

		5.4.6 5.4.7	2017 Sub-Slab Soil Vapor Sampling Letter5-192019 Environmental Soil Screening Memo5-19
6.0	SUBJE	CT PROF	PERTY
	6.1	Subject 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 6.1.6 6.1.7 6.1.8	Property Observations6-1Materials Management6-1Solid and Hazardous Waste Management6-1Aboveground and Underground Storage Tanks (ASTs/USTs)6-1Interior and Exterior Surface Observations6-2Pits, Sumps, Oil-Water Separators and Floor Drains6-2Wastewater and Stormwater Discharge Systems6-2Wells, Drywells and Lagoons6-2Polychlorinated Biphenyls (PCBs) and Oil-Containing Equipment6-2
7.0	INTER	VIEWS .	
	7.1 7.2	Intervie Intervie	w with Subject Property Representative7-1 w with Local Government Official7-1
8.0	EVALU	ATION.	
	8.1 Data Gaps 8-1 8.2 Identified Findings 8-1 8.3 Opinions 8-3 8.4 Conclusions 8-3		
9.0	NON-S	COPE C	ONSIDERATIONS9-1
10.0	REFER	ENCES	
11.0	SIGNA	TURE P	AGE
12.0	QUALI	FICATIO	DNS



FIGURES

- 1 Site Location Map
- 2 Site Detail Map

APPENDICES

- A User Questionnaire
- B GeoSearch Radius Report and Regulatory Records
- C County/City Information
- D Aerial Photographs
- E City Directories
- F Historical Maps
- G Fire Insurance Map Research Document
- H Previous Environmental Reports
- I Subject Property Photographs
- J Research Summary



Wenck Associates, Inc. (Wenck) was authorized by Ron Clark Construction (Ron Clark) to conduct this Phase I Environmental Site Assessment (ESA) of the property and improvements located at 4312 Shady Oak Road, Minnetonka, Hennepin County, Minnesota (the Subject Property). The Subject Property consists of 2.32 acres occupied by an approximately 25,680-square-foot multi-tenant commercial/retail building with a paved parking lot, drive areas, and greenspace. Access to the Subject Property is from Shady Oak Road and Oak Drive Lane. The Subject Property location is depicted in **Figure 1**. A Site Detail Map of the Subject Property is included as **Figure 2**.

This ESA was conducted in accordance with the American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment Process, Designation E-1527-13 (ASTM Phase I Standard) and satisfies standards and practices set forth in 40 CFR Part 312 – Standards for Conducting All Appropriate Inquiry (AAI Rule) for the purposes of meeting the all appropriate inquiries provisions necessary to qualify for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601(35)(B).

The conclusions contained in this report have been made to assist Ron Clark in evaluating environmental conditions at the present time at the Subject Property.

This ESA has identified the following *recognized environmental conditions* (RECs) relative to the Subject Property:

- The presence of historical machine shop and drycleaner tenants at the Subject Property that handled various oils and solvents and operated at the same time as the former septic and cesspool system is considered an REC.
- ▲ A Phase II Subsurface Investigation completed at the Subject Property identified DRO, VOCs and PCBs above MPCA and MDH established risk criteria in the soil, groundwater, concrete and soil vapor at the Subject Property. The identified release to multiple materials at the Subject Property is considered a REC.

This ESA has identified no evidence of *controlled recognized environmental conditions* (CRECs) or *historical recognized environmental conditions* (HRECs) in connection with the Subject Property.

Although not considered RECs, CRECs, or HRECs; this ESA has revealed the following items that constitute business environmental risks:

- There are two wells not in use on the 4312 parcel. According to the Minnesota Department of Health, a well must be in use, be under a maintenance permit, or be sealed by a licensed contractor.
- A former septic system may still be present to the west of the building. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations.



2.1 PURPOSE

Wenck was authorized by Ron Clark to conduct this Phase I ESA of the property and improvements located at 4312 Shady Oak Road, Minnetonka, Hennepin County, Minnesota; the Subject Property. The Subject Property consists of 2.32 acres occupied by an approximately 25,680-square-foot multi-tenant commercial/retail building with a paved parking lot, drive areas, and greenspace. Access to the Subject Property is from Shady Oak Road and Oak Drive Lane. The Subject Property location is depicted in **Figure 1**. A Site Detail Map of the Subject Property is included as **Figure 2**.

The conclusions contained in this report have been made to assist Ron Clark in evaluating environmental conditions at the present time at the Subject Property. In addition, the report is intended to satisfy the requirements of "all appropriate inquiry... consistent with good commercial or customary practice" referenced in the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601(35)(B).

2.2 SCOPE

This ESA was prepared in accordance with the ASTM Phase I Standard and AAI Rule to identify, to the extent feasible and in accordance with the processes described herein: recognized environmental conditions, controlled recognized environmental conditions, and historical recognized environmental conditions in connection with the Subject Property.

As defined in ASTM E 1527-13, the term *recognized environmental condition* (REC) means "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to a release to the environment; (2) under conditions of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

As defined in ASTM E1527-13, the term *controlled recognized environmental condition* (CREC) means "a recognized environmental condition resulting from a past release of hazardous substances or 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."

As defined in ASTM E1527-13, the term *historical recognized environmental condition* (HREC) means "a past release of any hazardous substances or petroleum products that has occurred in connection with the 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 property to any required controls."

As defined in ASTM E1527-13, the term *business environmental risk* means "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."

A summary of the general scope of work for this project is described in the following tasks:



- Task I. Records Retrieval and Review of Records: Wenck obtained publicly available, practically reviewable and reasonably ascertainable federal, state, county and city information about the Subject Property and other properties within minimum established search distances of the Subject Property. These sources were searched for any information about RECs, CRECs, HRECs or business-related environmental risks relative to the Subject Property. This search included a review of Superfund sites; waste treatment, storage and disposal facilities regulated under RCRA; spills or discharges of hazardous substances, toxic materials or petroleum products; and known or recorded landfills; and/or well databases.
- Task II. Site Reconnaissance: Wenck visually inspected the Subject Property to evaluate the Subject Property for RECs, CRECs, HRECs and business-related environmental risks. The structures and grounds of the Subject Property were observed for filling, subsidence, unusual land or surface forms, colorations, odors, indications of dumping, and evidence of suspect environmental features on the Subject Property such as tanks, drains, drywells, etc. Observations pertaining to adjacent property use were also recorded where such observations pertained to RECs, CRECs, HRECs or business-related environmental risks relative to the Subject Property.
- ▲ Task III. Interviews of People with Knowledge of the Subject Property: Wenck interviewed people with knowledge of the history of the Subject Property and of the surrounding properties. Interviews were completed in order to obtain information pertaining to RECs, CRECs or HRECs relative to the Subject Property. Interviewees included the Subject Property owner(s) and occupant(s), as well as local government officials.

Data gathered in the course of performing the above three tasks was used in concert to determine if information from one source indicated the need for additional information from another source.

▲ **Task IV. Reporting:** Wenck completed this Phase I ESA by combining the information retrieved through data searches with the observations that were made during the Subject Property reconnaissance and interviews. Photographs were taken to document the overall status and current use of the Subject Property and specific areas of concern.

Deviations from the scope described in the ASTM Phase I Standard are identified in Section 2.3.

2.3 **DEVIATIONS**

No intentional deviations from the ASTM Phase I Standard were made in preparing this report.



2.4 LIMITATIONS AND EXCEPTIONS

The results of this study, performed by Wenck, are based on the scope of work defined in Section 2.2, subject to any project-specific limitations or project-specific additional non-scope considerations described herein.

Portions of the Subject Property exterior were covered with snow and ice during the site reconnaissance.

As is the case with any investigation of finite scope, this review is intended to reduce, but cannot eliminate, the uncertainty regarding the potential for RECs, CRECs or HRECs in connection with the Subject Property. Therefore, the possibility of the presence of some localized substances that may be classified as hazardous cannot be ruled out completely. However, it is Wenck's opinion that the conditions observed at the Subject Property are representative of existing conditions at the time of the site reconnaissance.

2.5 SIGNIFICANT ASSUMPTIONS

Wenck assumes that the Subject Property Representative and Ron Clark have provided accurate information that will assist Wenck in determining appropriate inquiry, including but not limited to actual knowledge, previously prepared reports, environmental cleanup liens, and title review information. In addition, Wenck assumes, for the purposes of the site reconnaissance, adequate information has been provided to accurately establish the physical boundaries of the real property being evaluated.

2.6 SPECIAL TERMS AND CONDITIONS

The purpose of this report is to aid in the environmental assessment of the Subject Property and not to evaluate the structural condition of buildings or other features of the Subject Property.

Wenck has performed its work in a manner consistent with the care and skill ordinarily exercised by members of the environmental profession. The conclusions contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted engineering practices at this time and location. Wenck does not offer any form of warranty or guarantee that the Subject Property contains no hazardous substances, pollutants or contaminants.

Wenck assumes no responsibility for the accuracy of information that was obtained from other sources, including, without limitation, regulatory and government agencies, persons knowledgeable about the Subject Property, persons knowledgeable about adjacent properties and vendors of public practice.

2.7 USER RELIANCE

This report has been prepared solely for the information and use of Ron Clark. Others wishing to rely on the findings of this report, not having a contractual relationship with Wenck, do so without permission and at their own risk. Our professional recommendations made to the addressee(s) are exclusive to that party's disclosed intended or proposed consideration with respect to the Subject Property at the present time.



3.1 USE OF SUBJECT PROPERTY

The Subject Property is located in a commercial and residential area in the City of Minnetonka, Minnesota.

	Address: 4312 Shad Historical: 2100 Ma		City: Minnetonka
Site Address/Location	County: Hennepin		State: Minnesota
Address/Location	Township:	Range:	Section:
	117 North	22 West	SW ¼ of SE ¼ of 23
	Size: 2.32 acres		
Property Information	Property Identifica	tion Number:	
2	23-117-22-42-0057	and 23-117-22-4	12-0056
Improvements	The Subject Property with a paved parking		enant commercial/retail building and greenspace.
	Size:		Year of Construction:
	Approximately 25,68	0 square feet	1951
Building	Description:		
Information	spaces are accessed	from the east side vel tenant space	o levels. The upper level tenant le of the building off Shady Oak es are accessed by a walkout e building.
	Current Use:		
	The Subject Property	is currently vaca	ant.
Use of the Property	was undeveloped lan historical commercial The current commercial constructed in 1951. destroyed in a fire ar records, historical occ Johnson Super Valu, motorcycle sales and building include Chal- Block, Liberty Tool &	d from at least 1 building was con cial building on th In 1998, the his d then further d cupants of the so grocery store, an service. Historic et Pizza, Tonka P Engineering, Exo Shady Oak Flor	rmation, the Subject Property 896 until 1941, when the nstructed on the south parcel. ne north parcel was then torical south parcel building was emolished. Based on city buth parcel building include nd Hopkins Sports Center, cal occupants of the current Pets, Val's Styling Salon, H&R cel Interiors, Knight Machining, ral, Ammo Craft, and other ts.
Ownership and Operation of the Property	Current Ownership The Subject Property Johnson and is current	is owned by the	e City of Minnetonka and Eric S



The Subject Property location is depicted in **Figure 1**. A Site Detail Map showing the Subject Property is provided in **Figure 2**.

3.2 CURRENT USE OF ADJOINING PROPERTIES

The following land uses were noted on adjoining properties:

Direction	Description
North	Residential dwellings (beyond Oak Drive Lane)
South	La Bamba, Lim's Nails, Tara's Sewing and Alterations, Zoom Groom, Gateway Thrift Shop, Dunn Bro's Coffee, Jesse's Barber Shop, Tonka Cycle & Ski, and Ace Spirits
East	Residential dwellings and Mainstreet Motor Company (beyond Shady Oak Road)
West	Residential dwellings

3.3 PHYSICAL SETTING

3.3.1 Topography

The Subject Property is generally level and is at an elevation of approximately 925 feet above mean sea level. Site surface drainage appears to be to the west towards an off-site pond. Historic development may have included grading or filling of the Subject Property to improve the location for construction and drainage.

3.3.2 Geology

Published references describe the surficial geology at the Subject Property as fine-grained sand to gravel of mixed provenance (Berthold, 2018).

Shallow bedrock in the vicinity of the Subject Property consists of the Platteville Formation composed of limestone and dolostone and Glenwood Formation composed of calcareous, sandy, and phosphatic shale (Retzler, 2018). Depth to bedrock is approximately 50 to 125 feet below ground surface (bgs) (Retzler, 2018).

3.3.3 Hydrogeology

The general direction of regional groundwater flow in the area of the Subject Property is presumed to be to the east-southeast toward the Mississippi River (Kanivetsky, 1989). Local conditions may vary due to surface water features, perched groundwater conditions or artificially created drainage systems. Depth to regional groundwater is noted to be approximately 15 to 25 feet below ground surface (Kanivetsky, 1989).



4.1 REASON FOR PERFORMING PHASE I ESA

This Phase I ESA is being performed as a component of due diligence activities and to determine whether RECs, CRECs or HRECs affect the Subject Property.

4.2 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION

The Subject Property is owned by the City of Minnetonka and Eric S Johnson and is currently unoccupied.

4.3 TITLE RECORD INFORMATION

A title commitment record for the Subject Property was not provided to Wenck during preparation of this Phase I ESA, and a title search was not within the scope of this ESA.

4.4 USER QUESTIONNAIRE

An All Appropriate Inquiries User Questionnaire was completed by Mr. Mike Roebuck, President of Ron Clark Construction, to establish the User's knowledge of environmental condition of the Subject Property at the point of acquisition. The following sections include the information obtained from the completed User Questionnaire, which is included in **Appendix A**.

4.4.1 Environmental Liens or Activity and Use Limitations

No independent review of environmental liens was undertaken by Wenck as a part of this scope of work. The Subject Property is enrolled in the Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program, and future redevelopment of the Subject Property will require MPCA approval.

4.4.2 Specialized Knowledge

Prior assessments regarding the Subject Property were reviewed during this ESA (See Section 5.4). In addition, see Section 6.0 and Section 7.0 for specialized knowledge regarding the Subject Property.

4.4.3 Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonably ascertainable environmental information was found relevant to this study, which is discussed throughout this ESA.

4.4.4 Valuation Reduction for Environmental Reasons

The prior assessments regarding the Subject Property were reviewed during this ESA (See Section 5.4). The purchase price has been adjusted based on the results of the environmental testing previously completed.



5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Wenck requested and reviewed a search of files from federal and state databases from GeoSearch for the Subject Property (the GeoSearch Radius Report). Files were searched from Federal and State environmental records databases within minimum search distances as specified in the ASTM Phase I Standard, and the GeoSearch Radius Report included a more extensive database list than those minimally identified as required by the ASTM Phase I Standard. A summary of the sites identified in the GeoSearch Radius Report are discussed below, along with information regarding the significance of the listing for the Subject Property. The GeoSearch Radius Report, which contains more information regarding database descriptions and search distances, is included in **Appendix B**.

5.1.1 Subject Property

The Subject Property **was** identified on the following reviewed regulatory databases in the GeoSearch Radius Report for Chalet Pizza Building, Shady Oak Veterinary Clinic, Kline Corp DBA Practical Systems, Midtool Co, Knight Machining, and 4312 Shady Oak Redevelopment:

- Brownfields Management System (BF)
- Enforcement and Compliance History Information (ECHOR05) 4 listings
- Facility Registry System (FRSMN) 6 listing
- Petroleum Brownfields Program Sites (PBF)
- Resource Conservation and Recovery Act Generator (RCRAGR05) 3 listings
- Resource Conservation and Recovery Act Non-Generator (RCRANGR05)
- Voluntary Investigation and Cleanup Program Sites (VICP)
- What's In My Neighborhood Database (WINM) 4 listings
- MPCA Remediation Sites (REMSITES)

BF Listing

The BF listing is identified as the "Chalet Pizza Building" located at 4312-4342 Shady Oak Road. The BF Management System database documents environmental activity as sites. The Subject Property is listed as a BF site that consists of 1.62 acres of land occupied by a laboratory, veterinary clinic and machine shop with unknown previous use. The BF listing is related to a Phase I Environmental Assessment completed at the Subject Property on September 21, 2007. The 2007 Phase I ESA Report is discussed below in Section 5.4.1.

ECHOR05, RCRAGR05, and RCRANGR05 Listings

The ECHOR05, RCRAGR05, and RCRANGR05 listings are in reference to hazardous waste generation at the Subject Property from the following tenants at the Subject Property: Shady Oak Veterinary Clinic, Kline Corp DBA Practical Systems, Knight Machining, and Midtool Co. Records associated with the hazardous waste generation were provided by Hennepin County. Hazardous waste generated at the 4312 parcel included used x-ray fixer and film, Stoddard solvent, used oil, fluorescent lamps, metal working fluid, and mixed unrelated lab chemicals. Inspections of the tenants were completed in 1990, 1993, 1994, 1997, 1998, and 2005 with identified violations including submit transporter/disposer for refrigerants and amount recycled annually, service fire extinguishers or buy new, label waste properly, keep waste containers closed unless adding to them, maintain disposal records onsite for all hazardous wastes and have available for inspections, and obtain and post hazardous waste license in public area. These types of violations are administrative in



nature and are not indicative of a release or a material threat of release at the facility. Based on the type of violations, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.

FRSMN Listing

The FRSMN database includes pointers to other databases and facilities that were entered into the Minnesota Delta Program. A listing in the FRSMN database is not indicative of a release or a material threat of release of petroleum products or potentially hazardous substances at the facility, and therefore, these listings are not considered to represent RECs for the Subject Property.

PBF, VICP, and REMSITES Listings

The PBF, VICP, and REMSITES listings are to environmental investigations completed at the 3412 Parcel and the west adjacent site in 2014 through 2017. These investigations are discussed in detail below in Section 5.4.

Wenck reviewed the following Hennepin County files to determine the potential significance of these database listings for the Subject Property:

- EPA ID# MN0000803650 for Shady Oak Veterinary Clinic located at 4340 Shady Oak Road
- EPA ID# MND055467997 for Kline Corp DBA Practical Systems located at 4342 Shady Oak Road
- ▲ EPA ID# MNR000021097 for Knight Machining located at 4312B Shady Oak Road
- ▲ EPA ID# MND068178441 for Midtool Co located at 4316B Shady Oak Road

Provided records are included in **Appendix B**.

Wenck did not review State/County/City files for the additional database listings because sufficient information was available from other sources to determine the potential for RECs, CRECs and/or HRECs at the Subject Property.

5.1.2 Surrounding Properties

Additional mapped sites of regulatory interest identified within the search radii defined by the ASTM Phase I Standard, as identified in the GeoSearch Radius Report, include the following:

Number of Sites	Regulatory Database	Comments
5	Resource Conservation and Recovery Act - Generator Facilities (RCRAGR05) site	The RCRAGR05 database identifies regulated facilities currently licensed to generate hazardous waste. Global Vapery located at 4 Shady Oak Road, adjacent south from the Subject Property, is listed as a small quantity generator. The GeoSearch Radius Report indicates an inspection occurred in 2017 which resulted in one "general" violation that did not result in any enforcement. Based on the one identified "general" violation with no



Number of Sites	Regulatory Database	Comments
		enforcement, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
		The remaining four listings are located greater than 280 feet east or south from the Subject Property, down- or sidegradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
		RCRANGR05 listings are sites listed by the EPA as a former generator of hazardous waste.
		Vogel Display Corp located at 12 Shady Oak Road, adjacent south from the Subject Property, is listed as former hazardous waste generator of ignitable and corrosive waste. The GeoSearch Radius Report does not identify any inspections or violations associated with the permit. Based on the lack of identified violations, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
3	Resource Conservation and Recovery Act – Non- Generator Facilities (RCRANGR05) sites	Rent A Wreck located at 2021 Main Street, adjacent east-southeast from the Subject Property, is listed as a former hazardous waste generator of ignitable waste, corrosive waste, lead, and mercury. The GeoSearch Radius Report does not identify any inspections or violations associated with the permit. Based on the lack of identified violations, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
		The remaining listing is located approximately 0.12 miles south from the Subject Property and is listed as a former hazardous waste generator of ignitable waste and spent non-halogenated solvents. The GeoSearch Radius Report does not identify any inspections or violations associated with the permit. Based on the lack of identified violations, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the



Number of Sites	Regulatory Database	Comments
		Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
		The BF database is used to track activities in the various brownfield grant programs maintained by the EPA.
8	Brownfields Management System (BF) sites	The historical northeast adjacent site, located at 4305 and 4307-4311 Shady Oak Road in a downgradient location with respect to anticipated groundwater flow, is listed twice on the BF database. The GeoSearch Radius Report indicates a Phase I Environmental Assessment was completed in 2007. The use of the 4307-4311 property in 2007 was for a veterinary clinic and appliance service shop with previous use unknown. The use of the 4305 property in 2007 was for a roofing company with previous use unknown. No additional investigation was completed at the sites following the Phase I. Based on the downgradient location and lack of additional investigation after the Phase I, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
		The remaining six listings are located greater than 300 feet south from the Subject Property, sidegradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
1	Enforcement and Compliance History Information (ECHOR05)	A listing in the ECHOR05 database, by itself, is not indicative of a release or a material threat of release of petroleum products or potentially hazardous substances at the facility.
5	Facility Registry System (FRSMN)	The FRSMN database includes pointers to other databases and facilities that were entered into the Minnesota Delta Program. A listing in the FRSMN database, by itself, is not indicative of a release or a material threat of release of petroleum products or potentially hazardous substances at the facility.
7	Registered Storage Tank (UAST) sites	The UAST database provides information on aboveground and underground storage tanks registered with the Minnesota Pollution Control



Number of Sites	Regulatory Database	Comments
		Agency. UAST sites are not necessarily indicative of a release or a material threat of release of petroleum products or potentially hazardous substances to soil, groundwater or soil vapor conditions at the Subject Property. Leaking UAST listings are discussed in the LUAST database below.
6	Petroleum Brownfields Program (PBF) sites	The PBF database lists Petroleum Brownfield Program sites where regulatory assistance has been requested by a voluntary party requiring expedited review. The PBF sites are located greater than 300 feet south, south-southeast, or east-southeast from the Subject Property, side- to downgradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
15	Registered Leaking Storage Tank (LUAST) sites	The LUAST database is maintained by the Minnesota Pollution Control Agency and contains listings of leaking aboveground and underground storage tanks. Former Amoco Service Station/Smith Imports is located at 2021 Mainstreet, the east adjacent site approximately 150 feet east from the Subject Property, downgradient with respect to anticipated groundwater flow. The GeoSearch Radius Report indicates the release was issued regulatory closure by the MPCA in 1997. Based on the location and regulatory closure status, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property. The remaining LUAST sites are located greater than 0.19 miles from the Subject Property. The GeoSearch Radius Report indicates all releases have been issued regulatory closure by the MPCA. Based on the distance and regulatory status, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.



Number of Sites	Regulatory Database	Comments
18	Registered Leaking Storage Tanks Prior to April 2016 (LUAST2016) sites	The LUAST2016 database is maintained by the Minnesota Pollution Control Agency and contains listings of leaking aboveground and underground storage tanks through April of 2016. Seventeen of the listings are associated with LUAST sites, which are discussed above. The remaining site is located approximately 0.22 miles south from the Subject Property, sidegradient with respect to anticipated groundwater flow. Based on the distance and location, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
19	Site Response Section Database (SRS) sites	The SRS database includes remediation sites from the Superfund, Voluntary Investigation and Cleanup, Brownfields, Resource Conservation and Recovery Act, Tanks, Landfills and Emergency Response Program. The SRS sites are located greater than 300 feet south, south-southeast, southeast, east-southeast, east, or northeast from the Subject Property, side- to downgradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
1	Unpermitted Dump Sites (UNPERMDUMPS)	The UNPERMDUMPS database consists of landfills that never held a valid permit from the MPA, generally meaning they existed prior to the permitting program established with the creation of the MPCA in 1967. The UNPERMDUMPS site, Hopkins Motors LLC/Town & Country Dodge, is located approximately 0.50 miles northeast from the Subject Property, downgradient with respect to anticipated groundwater flow. Based on the distance and location, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
15	Voluntary	The VICP database lists remediation sites provided



Number of Sites	Regulatory Database	Comments
	Investigation and Cleanup Program	by the MPCA. The VICP sites are located greater than 300 feet
	(VICP) sites	south, south-southeast, southeast, east-southeast, east, or northeast from the Subject Property, side- to downgradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
		The REMSITES database lists environmental sites that include Brownfield, Integrated Remediation, Leaking Storage Tank, RCRA Remediation, Superfund, Superfund sub-area, and Site Assessment Sites.
52	MPCA Remediation (REMSITES) sites	The REMSITES are located greater than 300 feet south, south-southeast, southeast, east-southeast, east, or northeast from the Subject Property, side- to downgradient with respect to anticipated groundwater flow. Based on the distance and location, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
1	Superfund Site Information Listing (SF) site	The SF database lists sites the MPCA Superfund Program has identified, investigated, or determined needs appropriate cleanup. The SF site, Hopkins Sanitary Landfill, is located approximately 0.95 miles southeast from the Subject Property, downgradient with respect to anticipated groundwater flow. Based on the distance and location, this listing is not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
1	Registered Drycleaning Facilities (CLEANERS)	The CLEANERS database lists registered dry cleaning facilities and is maintained by the Minnesota Pollution Control Agency. The CLEANERS site, Suburban Dry Cleaners, is located approximately 0.18 miles south from the Subject Property, sidegradient with respect to anticipated groundwater flow. Based on the distance and location, this listing is not considered



Number of Sites	Regulatory Database	Comments
		a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, is not considered to represent a REC for the Subject Property.
		The AGSPILLS database is maintained by the Minnesota Department of Agriculture (MDA) and contains sites with reported spill incidents.
2	Agricultural Spills Listing (AGSPILLS) sites	The AGSPILLS sites are located greater than 0.46 miles from the Subject Property. The GeoSearch Radius Report indicates both releases were issued regulatory closure by MDA. Based on the distance and regulatory closure status, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.
116	What's In My Neighborhood (WIMN) sites	The WIMN database provides a variety of environmental information about the search area. A listing in the WIMN database, by itself, is not indicative of a release or a material threat of release of petroleum products or potentially hazardous substances at the facility.

Two unmapped sites were identified in the GeoSearch Radius Report. Unmapped sites are those where address information is insufficient to allow the sites to be accurately mapped by GeoSearch. Wenck was able to ascertain the approximate locations of each unmapped site. Based on location and/or database listings, these sites are not considered a threat to soil, groundwater or soil vapor conditions at the Subject Property, and, therefore, are not considered to represent RECs for the Subject Property.

Wenck did not review State/County/City files for these database listings because sufficient information was available from other sources to determine the potential for RECs, CRECs and/or HRECs relative to the Subject Property.

5.2 ADDITIONAL RECORD SOURCES

Additional record sources may be consulted when, in the judgment of the Environmental Professional, such additional records are reasonably ascertainable, sufficiently useful, accurate and complete, and are generally obtained pursuant to good commercial and customary practice. Such records may include local brownfield lists, or other local lists similar to those federal, state and tribal lists. Such sources may include local health or environmental departments, fire departments, planning departments, building permit or inspection departments, and other local pollution, water quality or utility companies.

5.2.1 Hennepin County Tax Information

Hennepin County tax information was obtained and reviewed from the Hennepin County tax assessor's website. Tax records provide publicly available information about the Subject



Property. The tax records did not reveal additional information with respect to the environmental condition of the Subject Property.

The Hennepin County tax information is included as **Appendix C**.

5.2.2 Local Building Records Review

Local building records were obtained from the City of Minnetonka for the north parcel. According to the building records, the Subject Property building was permitted for construction in 1951. The city files show that the commercial structure on the 4312 Parcel was originally constructed with a septic system consisting of a 10' wide x 40' long x 8' in height septic tank and four 675-gallon sized concrete cesspools. The construction material of the tanks is noted as concrete. The septic system was located on the west side of the 4312 parcel in the parking lot area. It is unknown if the system was removed. The city water and sewer connection to the commercial structure was completed around 1972-1977 according to City Records.

The city files indicate the former tenant Dahl's Cleaners and Laundry operated as a drycleaner. Records note that on February 20, 1962 a Frigidaire dry-cleaning machine was installed at the 4318 tenant space.

Local building records were obtained from the City of Hopkins for the south parcel. The building records for 2 Shady Oak Road also contained records associated with the south adjacent site. The records that appear to be directly associated with the Subject Property indicate a building was located on the southern portion of the Subject Property that was occupied by Johnson Super Valu in 1962 and the Hopkins Sports Center, a motorcycle sales and service tenant, in 1986. The building appears to have been built in 1941. Records indicate the building was destroyed in a fire and further removed from the Subject Property in 1988.

Information obtained from the City of Minnetonka is included in **Appendix C**.

5.3 HISTORICAL USE INFORMATION

5.3.1 Aerial Photographs

Aerial photographs were reviewed from 1937, 1940, 1947, 1953, 1957, 1964, 1969, 1979, 1984, 1992, 1997, 2003, 2008, and 2013. The aerial photographs are presented in **Appendix D**.

Year	Description
1937-1940	The 1937 and 1940 aerial photographs show the Subject Property as vacant and/or agricultural cropland. A building is shown on the east adjacent site with remaining sites shown as vacant and/or agricultural cropland. Shady Oak Road is shown to the immediate east of the Subject Property.
1947	The 1947 aerial photograph shows the southern portion of the Subject Property developed with a commercial building. Adjacent sites are shown in similar configurations as previous aerial



	photographs.
1953	The 1953 aerial photograph shows the original portion of the current commercial building on the northern portion of the Subject Property. The adjacent sites to the northeast, south, and west are shown as vacant land. The adjacent site to the southeast is shown as a mobile home park with residential dwellings to the north and northwest of the Subject Property. The east adjacent site is shown in a similar configuration as previous aerial photographs. Oak Drive Lane is shown to the immediate north of the Subject Property.
1957	The 1957 aerial photograph shows an addition on the current commercial building and a new commercial building is shown on the southern portion of the Subject Property. Residential dwellings are shown to the west of the Subject Property with a commercial building shown on the east-northeast adjacent site. Remaining adjacent sites shown in similar configurations as previous aerial photographs.
1964-1984	The 1964 through 1984 aerial photographs show another addition on the current commercial building.The south adjacent site is shown developed with a commercial building.The 1979 through 1984 aerial photographs show residential dwelling to the northeast of the Subject Property. Remaining adjacent sites are shown in similar configurations as previous aerial photographs.
1992-2013	The 1992 aerial photograph shows the Subject Property in is current configuration with no commercial building on the southern portion. The 1997 aerial photograph shows the southeast adjacent site undergoing redevelopment with the current residential townhome complex shown in the 2003 aerial photograph. Remaining adjacent sites are shown in similar configurations as previous aerial photographs.

5.3.2 City Directories

City directories were researched for the Subject Property and surrounding properties. The street researched was Shady Oak Road and directories were available for the years 1967, 1972, 1977, 1982/83, 1988, 1992/93, 1999, 2002, 2007, and 2012. The city directories are included as **Appendix E**. Listings for the address of the Subject Property (4312-4342 Shady Oak Road) consist of the following:

Directory Year	Subject Property Listing
1972	 4312: Cartwright Saw Co. & Liberty Tool & Engineering Corp 4314: Suburban Hennepin County Relief Board 4316: Chalet Pizza & Clean-Flo Corp. 4320: Loge Carpet Installation & Howard Specialties Co. 4330: Tonka Pets 4332: Val's Styling Salon



	4334: Excel Interiors 4338: Climate Engineering Co. 4340: H&R Block Inc. & City Side-Car Credit Co. 4342: Vacant
1977	 4312: No listing 4314: Vacant 4316: Chalet Pizza & Chalet Room 4330: Tonka Pets 4332: Val's Styling Salon & Household Research Inst. 4334: Excel Interiors & Clean-Flo Laboratories Inc. 4338: Under Construction
1982/1983	 4312: Liberty Tool & Engineering, Olson Precision 4314: Gardner Pastry Shop 4316: Chalet Pizza & Mid-Tool 4330: Tonka Pets 4332: B C Kitchens & Val's Styling Salon 4334: Excel Interiors & Climate Engineering Co. 4338: H&R Block Inc. & Air Refrigeration Service 4340: Miguel Bracho & Shady Oak Vet. 4342: Clean-Flo Lab. Inc. & Lakeview Service
1988	 4312: Knight Machining 4314: Gardner Pastry Shop 4316: Chalet Pizza & Mid-Tool 4330: Shady Oak Floral 4332: Val's Styling Salon & B C Kitchens 4334: Excel Upholstering 4336: Century Video & Climate Engineering 4338: Century Tanning Salon & Vacant 4340: Shady Oak Veterinary Clinic 4342: Clean-Flo Lab. Inc. & Lakeview Service
1992/1993	 4312: Knight Machining Shop 4314: Direct Hearing Aid 4316: Chalet Pizza & Mid-Tool 4330: Blossoms Floral & Gift 4332: Building: B C Kitchens & Mr. Val's Styling Salon 4336: Building: Century Video & Climate Engineering 4340: Miguel Bracho, EnviroTech Marketing, & Shady Oak Vet. 4342: Clean-Flo Labs, Inc. & Lakeview Service
1999	 4312: Knight Machining 4314: Ammo Craft 4316: Chalet Pizza, Pinball Machine Repair Service, & Mid-Tool Company 4330: Blossoms Floral & Tea Room 4332: Val's Styling Salon, B C Kitchen's 4336: Century Video & Tanning, & Climate Engineering Co. 4340: Bracho Miguel & Shady Oak Veterinary Clinic
2002	4312: Apparently Graphic Ltd. 4314: Ammo Craft 4316: Mid Tool & Chalet Pizza 4330: Blossoms Floral & Gift



	 4332 Building: B C Kitchens Inc, James Gang Hair Design, James Gang of Minnetonka 4336: Climate Engineering Co. 4338: Century Tanning 4340: Miguel Bracho, Barb Leppke DVM, Shady Oak Veterinary, & 2 Girls Grooming 4342: Practical Systems 	
2007	4316: Mid Tool Co & Chalet Pizza 4332 Building: B C Kitchens Inc. Cabinets, James Gang Hair Design, & James Gang of Minnetonka 4342 Building: Kline Corp & Practical Systems	
2012	 4314: Ammo Craft & Gobbler Specialties 4316: Building & Chalet Pizza 4330: Nannas Treasures 4332 Building: B C Kitchens Inc. Cabinets & P3 Hair Design 4334: Wholesale Wicker Basket LLC 4336 Building: Climate Engineering Co. 4340: Cool Dog Grooming Studio & Barb Leppke, DVM 4342: Practical Systems 	

Other listings in the vicinity of the Subject Property include:

Directory Year	Subject Property Listing
1972	Minnesota Conservation Federation (4313) ABC Carpet (4315)
1977	Cozee Coiffures (4313)
1982/1983	Pavek Animal & Pet Clinic (4311) Cozee-Coiffures (4313)
1988	Pavek Animal Clinic (4311)
1992/1993	Sharon's Hair Boutique (4313)
1999	Salon De-Classique (4313)
2002	Salon De (4313)
2007	Pavek Animal Hospital & Shady Oak Grooming (4311)
2012	No listing

5.3.3 Historical Maps

The Minneapolis, Minnesota USGS 15-minute series topographic map dated 1896, 1901 and 1954; and the Hopkins, Minnesota USGS 7.5-minute series topographic maps dated 1954, 1967, 1980, 1993 and 2013 show the area of the Subject Property.



The 1896 topographic map does not depict structures or other items on the Subject Property. Shady Oak Road is depicted to the immediate east of the Subject Property with a structure depicted on the southeast adjacent site. Marshland is depicted to the west and northeast of the Subject Property with no other items depicted on adjacent sites.

The 1954 through 1993 topographic maps depict two structures on the Subject Property. Structures are depicted on adjacent sites to the north, northeast, and northwest on the 1954 topographic map. Built-up area is depicted to the southeast of the Subject Property with marshland to the west. The 1967 topographic map depicts built-up area to the east with structures on the south adjacent site.

The 2013 and 2016 topographic maps do not show structures, just roadways and natural features.

Additionally, a Map of Township 117 N of Range 22 W for the year 1855 and plat maps of Hennepin County for the years 1873, 1898, and 1913 were review. The 1855 map depicts the Subject Property and adjacent sites as undeveloped land. The 1873 plat map identifies the Subject Property is owned by Austin and Hubbard. The owners are difficult to discern in the 1898 and 1913 plat maps; however, the Subject Property and adjacent sites are depicted as undeveloped land with Shady Oak Road to the immediate east of the Subject Property.

The historical maps are included as **Appendix F**.

5.3.4 Fire Insurance Maps

A search was conducted to determine if fire insurance maps were available for the Subject Property. Fire insurance maps were created for insurance underwriters and often contain information regarding the uses of individual structures and the locations of fuel and/or chemical storage tanks that may have been on a particular property.

According to Historical Information Gatherers, Inc. (HIG), fire insurance map coverage is not available in the research materials searched for the Subject Property. HIG fire insurance map research documentation is included as **Appendix G**.

5.4 PREVIOUS ENVIRONMENTAL REPORTS

The following previous environmental reports prepared for the Subject Property were reviewed:

- Phase I Environmental Site Assessment, Ring Property, 4312-4342 Shady Oak Road, Minnetonka, Minnesota. Prepared by Service Engineering Group for Hennepin County. September 21, 2007 (2007 Phase I ESA Report).
- Phase I Environmental Site Assessment, Shady Oak Property, 4312 Shady Oak Road and 4292 Oak Drive Lane, Minnetonka, Minnesota. Prepared by Wenck for the City of Minnetonka. November 6, 2014 (2014 Phase I ESA Report).
- Phase II Environmental Site Assessment, Shady Oak Property, 4312 Shady Oak Road and 4292 Oak Drive Lane, Minnetonka, Minnesota. Prepared by Wenck for the City of Minnetonka. November 13, 2014 (2014 Phase II ESA Report).



- Phase I Environmental Site Assessment, Shady Oak Property, 4312 Shady Oak Road and 4292 Oak Drive Lane, Minnetonka, Minnesota. Prepared by Wenck for the City of Minnetonka. June 27, 2016 (2016 Phase I ESA Report).
- Environmental Site Assessment Supplemental Site Assessment, Shady Oak Property, 4312 Shady Oak Road and 4292 Oak Drive Lane, Minnetonka, Minnesota. Prepared by Wenck for the City of Minnetonka. June 27, 2016 (2016 Supplemental Soil Investigation Report).
- Environmental Services Sub-Slab Soil Vapor Sampling, 4312 Shady Oak Road, Minnetonka, Minnesota. Prepared by Wenck for the City of Minnetonka. July 21, 2017 (2017 Sub-Slab Soil Vapor Sampling Letter).
- Environmental Soil Screening, 4312 Shady Oak Road. Prepared by Wenck for Ron Clark Construction. June 11, 2019 (2019 Environmental Soil Screening Memo).

These previous environmental reports, as provided to Wenck, are included in **Appendix H**.

5.4.1 2007 Phase I ESA Report

The 2007 Phase I ESA Report was completed on 4312 parcel and noted that the tenants at the 4312 parcel consisted of Knight Machining, Ammocraft Firearms Supply, Chalet Pizza, James Gang Hair, a woodworking shop, Shady Oak Vet, and Practical Systems HVAC. The Phase I notes that these tenants or like-industries, have occupied the 4312 parcel since at least the 1980's. Prior to that time, other light commercial or service industry tenants have periodically occupied the site including county offices, an antique store, restaurant, furniture store, hardware store, sheet metal workings, dentist office, and a drive-in dry cleaner. The 2007 report notes the cleaners was drop-off only as shown in a 1975 City Directory reviewed by Service Engineering Group.

The 2007 Report stated that there were no identified RECs. The 2007 Report does not mention the septic tank and cesspool system at the 4312 Parcel.

The dry-cleaner noted in City of Minnetonka files for the 2014 Wenck Phase I report is not the same dry-cleaner noted in the 2007 Phase I ESA Report and 1975 City Directory.

5.4.2 2014 Phase I ESA Report

The 2014 Phase I ESA Report was completed on the 4312 parcel and the west adjacent site (4292 Oak Drive Lane). The previous report's Subject Property consisted of one commercial/retail building with multiple tenant spaces, a single-family residence, a paved parking area on the west side of the commercial building, and greenspace. At the time the report was prepared, the Subject Property was owned by E H Ring Credit Shelter (4312 parcel) and EGR Premier Properties (4292 parcel).

According to the 2014 Phase I ESA Report, the tenants at the 4312 Parcel consisted of Ammo Craft (4314), Tara's Chalet Pizza (4316), Sewing and Alterations (4318), 3x3 Fit (4330), P3 Hair Design (4332), E-Cigs and Accessories (4334), Mission Animal Hospital (4338), Second Hand Hounds (4340 and 4334B), Mid-Tool (4316B), Electric City (4330B and 4332B), and Practical Systems – HVAC (4340B and 4342B).

The 2014 Phase I ESA Report identified the following RECs relative to the 4312 parcel and the west adjacent site:



- "The presence of historical machine shop and drycleaner tenants at the Subject Property that handled various oils and solvents and operated at the same time as the former septic and cesspool system is considered an REC.
- Heavy oil staining from a leaking compressor located in the northwest corner of the building in a vacant tenant space is considered an REC."

The 2014 Phase I ESA Report identified the following items that constituted a business environmental risk for the 4312 parcel and the west adjacent site:

- There is a domestic well located at the Subject Property that is currently not in use on the 4292 parcel and two wells not in use on the 4312 parcel. According to the Minnesota Department of Health, a well must be in use, be under a maintenance permit, or be sealed by a licensed contractor.
- ▲ A former septic system may still be present on the Subject Property at the 4312 Parcel on the west of the building. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations. A septic system was not observed on the 4292 Parcel; however, a septic system may also be present on the 4292 Parcel, based on the similar time of construction."

5.4.3 2014 Phase II ESA Report

The 2014 Phase II ESA Report was completed on the 4312 parcel and the west adjacent site (4292 Oak Drive Lane) and consisted of the advancement of five (5) soil borings to depths of 15 to 30 feet below ground surface (bgs) to assess current soil and groundwater conditions. Soil samples were collected from five of the borings and analyzed for diesel range organics (DRO), volatile organic compounds (VOCs), and Resource Conservation and Recovery Act (RCRA) metals; four (4) samples for polynuclear aromatic hydrocarbons (PAHs); and one (1) soil samples for PCBs. Groundwater samples were collected from three borings and analyzed for DRO and VOCs. Two soil vapor samples were also collected and analyzed for VOCs using method TO-15. Additionally, Wenck collected three PCB wipe samples from areas where staining was observed in the basement of the 4312 Building noted in the 2014 Phase I ESA Report.

During the Phase II investigation, fill soils consisting of predominately brown to black silty sand with gravel were encountered to depths of approximately 5 feet bgs in the west parking lot area of the 4312 Building. The fill soil was generally underlain by brown silty sand with gravel. Groundwater was encountered in each boring drilled on the Subject Property at depths of approximately 10 to 20 feet bgs.

The soil investigation results from the 2014 Phase II ESA Report compared detected concentrations of RCRA metals, VOCs, PAHs and PCBs to the Minnesota Pollution Control Agency's Tier 1 Residential and Tier 2 Industrial Soil Reference Values (SRVs). Additionally, MPCA Tier 1 Soil Leaching Values (SLVs) were referenced to evaluate the potential risk to groundwater at the Subject Property from the soil-to-groundwater leaching pathway.

DRO was identified in three of the six soil samples collected at concentrations ranging from 494 mg/kg to 9.99 mg/kg. Various RCRA metals were detected in all of the samples collected and analyzed; however, detected concentrations of metals do not exceed the MPCA SLVs, Residential SRVs, or Industrial SRVs. VOCs were not identified in soil samples above their respective laboratory method reporting limits in any of the soil samples



collected. In one of the two samples collected and analyzed for PCBS, total PCBs were detected at 0.265 mg/kg above the MPCA SLV of 0.1 mg/kg. Various PAHS were detected in the soil samples However; none, of the samples were identified to exceed the MPCA Residential or Industrial SRVs or MPCA SLVs for individual PAHs or the BaP equivalent concentrations calculated.

The groundwater analytical data collected during the 2014 Phase II ESA Report compared detected concentrations of VOCs to the Minnesota Department of Health's (MDH) and MPCA's Health Risk Limits (HRL) and MDH Health Based Values (HBVs) guidance values to assess potential human health risks from exposures to chemicals in groundwater. There are no established HRLs or HBVs for DRO and GRO.

The VOC tetrachloroethene (PCE), a common drycleaner solvent, was detected in two groundwater samples collected at the previous report's Subject Property at concentrations ranging from 1.81 ug/L to 1.23 ug/L. Both detections were below the MPCA HRL/MDH HBV of 5.0 ug/L. DRO was detected in all three temporary wells at 21.2 ug/L, 314 ug/L, and 267 ug/L.

The soil vapor data collected during the 2014 Phase II ESA Report was compared to the MPCA's Intrusion Screening Values (ISVs) for Vapor Intrusion Risk. Various VOCs were detected above the method detection limits in the soil vapor samples collected from the Subject Property. PCE was detected at 130 ug/m³ above 10x the 2014 Residential ISV, but below 10x the 2014 Industrial ISV. *The elevated concentration of PCE at 130 ug/m³ in SV-1 exceeds 33x the May 2019 published Residential ISV of 3.4 ug/m³ (110 ug/m³ = 33x Residential ISV)*. Trichloroethene (TCE) was detected at 20 ug/m³ equal to 10x the 2014 Residential ISV, but below 10x the Industrial ISV. *The Residential ISV for TCE as of May 2019 is to 2.1 ug/m³ and 33x Residential ISV = 70 ug/m³*. The VOC 1,3-butadiene was detected above 10x the Residential ISV in both samples; however, the 2014 Phase II ESA Report concluded there was no potential source of 1,3-butadiene and the detection was not indicative of a release. None of the other detected VOCs exceed 33x the MPCA Residential ISVs.

PCBs were detected in one of the wipe samples at a concentration of 25.1 ug/100 cm² from the oil stained concrete under the leaking compressor in the vacant storage space in the northwest corner of the basement of the building on the 4312 Parcel.

5.4.4 2016 Phase I ESA Report

The 2016 Phase I ESA Report was completed on the 4312 parcel and the west adjacent site (4292 Oak Drive Lane), which consisted of one commercial/retail building with multiple tenant spaces, a single-family residence, a paved parking area on the west side of the commercial building, and greenspace. Both structures were originally built in 1951. Two additions were completed on the commercial structure by 1964.

The building on the 4312 Parcel is two levels and the upper level tenant spaces are accessed from the east side of the building off Shady Oak Road and the lower level tenant spaces are accessed by a walkout basement level on the west side of the building. The current tenants on the upper level consist of Ammo Craft (4314), Chalet Pizza (4316) and Sewing and Alterations (4318); the remaining spaces on the upper level are vacant. The lower level tenant spaces are occupied by Mid-Tool (4316B), Electric City (4330B and 4332B), and Practical Systems – HVAC (4340B and 4342B).



Wenck reviewed building permits and records for the previous report's Subject Property at the City of Minnetonka. Dahl's Cleaners and Laundry were noted in the City file as a drycleaner tenant at the Subject Property at the 4312 Parcel building, and the file notes a dry-cleaning machine was installed in 1962.

Wenck also obtained hazardous waste files from Hennepin County Environmental. The records did not reveal any evidence of a release of hazardous materials at the Property or any major handling violations. Wenck reviewed records for Knight Machining, Inc., Mid-Tool, Liberty Tool, Practical Systems, Clean Flo Labs, and Shady Oak Veterinary Clinic.

Chemicals formerly used by Knight Machine included relatively small quantities of Stoddard Solvent, used oil, and metal working fluid. Waste generated by the Shady Oak Veterinary included used x-ray film, x-ray fixer, and bio-waste. Clean Flo labs reported to generate approximately 5-gallons per year of mixed lab chemicals. A letter for Mid-Tool from the MCPA noted that Mid-Tool does not generate any waste but uses cutting oil and Stoddard Solvent in their operations. The chemicals are reportedly consumed in the process or recycled back to the machines.

City files show that the commercial structure on the 4312 Parcel was originally constructed with a septic system consisting of a 10' wide x 40' long x 8' in height septic tank and four 675-gallon concrete cesspools.

Wenck observed a vent pipe on the west side of the building on the 4312 parcel. This pipe may be associated with a former fuel tank or the former septic system.

The previous report's Subject Property was identified on the following reviewed regulatory databases in the GeoSearch[™] Radius Report: Resource Conservation & Recovery Act – Generator Facilities (RCRAGR05), Federal Facility Registry System (FRSMN), and Hazardous Waste Generator Sites (HWGS) databases due to a hazardous waste generator licenses. Other nearby sites were noted in the GeoSearch report for various databases.

Wenck observed two wells on the 4312 parcel. One well is located under a stairwell in the Practical Systems space and the other well is located outside off the sidewalk north of the Ammo Craft tenant space. Wenck also observed a well in the basement of the residence at the 4292 parcel.

"This Phase I ESA has identified no *recognized environmental conditions* (RECs) relative to the Subject Property except for the following:

- The presence of historical machine shop and drycleaner tenants at the Subject Property that handled various oils and solvents and operated at the same time as the former septic and cesspool system is considered an REC.
- ▲ A Phase II Subsurface Investigation completed at the Subject Property identified DRO, VOCs and PCBs above MPCA and MDH established risk criteria in the soil, groundwater, concrete and soil vapor at the Subject Property. The identified release to multiple materials at the Subject Property is considered a REC.

This Phase I ESA has not identified any *controlled recognized environmental conditions* (CRECs) or *historical recognized environmental conditions* (HRECs) relative to the Subject Property.



Although not considered RECs, CRECs, or HRECs; this ESA has revealed the following items that constitute business environmental risks:

- There is a domestic well located at the Subject Property that is currently not in use on the 4292 Parcel and two wells not in use on the 4312 parcel. According to the Minnesota Department of Health, a well must be in use, be under a maintenance permit, or be sealed by a licensed contractor.
- ▲ A former septic system may still be present on the Subject Property at the 4312 Parcel on the west of the building. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations. A septic system was not observed on the 4292 Parcel; however, a septic system may also be present on the 4292 Parcel, based on the similar time of construction."

5.4.5 2016 Supplemental Soil Investigation Report

The 2016 Supplemental Soil Investigation consisted of the advancement of eight (8) soil borings to depths of 31 feet below ground surface (bgs) to evaluate subsurface conditions in specific locations to provide good spatial coverage of the site, and to evaluate environmental conditions of the Subject Property. Soil samples were collected from all eight of the borings and analyzed for DRO, VOCs, and RCRA metals, PAHs, and PCBs.

During the Supplemental Soil Investigation, Wenck encountered approximately four feet of fill soils consisting of mainly dark brown to black silty sand with gravel on the Subject Property with approximately 10 feet of fill in boring SB-8 on the south side of the building. In general, the fill was underlain primarily by brown silty sand with gravel in borings SB-1 through SB-4 and brown to grey sandy clays in borings SB-5 through SB-8. Lenses of organic clay ranging from one inch to two feet in thickness were noted in SB-6 through SB-8 from 9-15 feet below grade.

The soil investigation compared detected concentrations of DRO, VOCs, RCRA metals, PAHs and PCBs to the Minnesota Pollution Control Agency's Tier 1 Residential and Tier 2 Industrial SRVs. Additionally, MPCA Tier 1 SLVs were referenced to evaluate the potential risk to groundwater at the Subject Property from the soil-to-groundwater leaching pathway.

DRO was detected in all eight of the soil samples. Detections ranged from 0.425 mg/kg in sample SB-4 (2-3.5') to 215 mg/kg in sample SB-7 (2-3.5'). DRO was detected above 100 mg/kg in samples SB-3 (4.5-6') at 108 mg/kg, SB-6 (2-3.5') at 170 mg/kg, and SB-7 (2-3.5') at 215 mg/kg. There was no established guidance for DRO in the MPCA SLVs or SRVs. PCE was detected at 0.245 mg/kg in sample SB-3 (4.5-6'). No other VOCs were detected above their respective laboratory method reporting limits in any of the other seven soil samples collected and analyzed for VOCs. The detection of PCE exceeded the MPCA SLV but did not exceed the Residential SRV or Industrial SRV.

Five of the eight RCRA metals were detected in the eight samples collected with at least three metals identified in each sample. However, detected concentrations of metals did not exceed the MPCA SLVs, Residential SRVs, or Industrial SRVs.

Various PAHs were detected above the method reporting limit in six of the eight soil samples. None of the samples were identified to exceed the MPCA Residential or Industrial SRVs or MPCA SLVs for individual PAHs.

PCBs were not detected in any of the eight soil samples collected.



Groundwater was encountered in each boring drilled on the Subject Property. Groundwater was encountered at approximately 13 feet below ground surface in SB-2 through SB-4 located at a lower elevation on the west side of the building. Groundwater was encountered at approximately 25 feet below grade in borings SB-5 through SB-8 which were drilled on the west side of the building starting at a higher elevation. Groundwater was also encountered at 25 feet below grade in SB-1 which also appeared to be at slightly higher elevation.

5.4.6 2017 Sub-Slab Soil Vapor Sampling Letter

The 2017 Sub-Slab Soil Vapor Sampling consisted of collecting eight additional soil vapor samples on the 4312 parcel and two additional sub-slab vapor samples at the 4292 parcel during the "heating season" and "cooling season". The addition sampling was completed to define the extent and magnitude of VOCs in soil gas. The vapor samples were collected and analyzed for VOCs using method TO-15. The soil vapor data was compared to the MPCA's Intrusion Screening Values (ISVs) for Vapor Intrusion Risk.

Various VOCs were detected above method detection limits in the sub-slab and soil vapor probe samples for both sampling events; however, there was only one compound exceeding the 33x Residential ISV. For the first sampling event on March 30, 2017, PCE was detected above 33x the Residential ISV in every soil vapor sample (SV-2B and SV-3 through SV-7) at 650 ug/m³, 110 ug/m³, 690 ug/m³, 570 ug/m³, 430 ug/m³ and 430 ug/m³ respectively. During the May 11, 2017 sampling event, PCE was detected above laboratory reporting limits, but below 33x the Residential ISV. PCE was not detected above laboratory reporting limits in sub-slab samples SS-1 or SS-2.

5.4.7 2019 Environmental Soil Screening Memo

The 2019 Environmental Soil Screening consisted of completion of two soil borings on the southern portion of the Subject Property to assess underground conditions at the Site. Soil samples were collected from all eight of the borings and analyzed for DRO, VOCs, RCRA metals, and PAHs.

During the Environmental Soil Screening, Wenck encountered up to 6 feet of fill soils consisting of mainly dark brown to black silty sand with gravel. In general, the fill was underlain primarily by brown silty sand or tan coarse sand. Sandy clay was observed in SB-2A at approximately 24 feet bgs and 30 feet bgs.

The soil investigation compared detected concentrations of VOCs, RCRA metals, and PAHs to the Minnesota Pollution Control Agency's Tier 1 Residential and Tier 2 Industrial SRVs. Additionally, MPCA Tier 1 SLVs were referenced to evaluate the potential risk to groundwater at the Subject Property from the soil-to-groundwater leaching pathway. There are no established MPCA SRVs or SLVs for DRO.

Low levels of DRO were identified in sample SB-1A (1.5-5.5) at 21.5 mg/kg and SB-2A (0-1.5) at 38.7 mg/kg. The DRO detections were well below the MPCA's unregulated soil reuse guidance of 100 mg/kg. Detected RCRA metals concentrations of barium, chromium, lead, and mercury did not exceed the MPCA SLVs, Residential SRVs, or Industrial SRVs. VOCs were not identified in the soil samples above their respective laboratory reporting limits. Low levels of PAHs were identified in the soil samples; however, no individual PAHs or benzo(a)pyrene equivalents were identified above their respective Industrial/Residential SRVs or Tier I SLVs.



6.1 SUBJECT PROPERTY OBSERVATIONS

Ms. Rachel Kieser of Wenck conducted a site reconnaissance on December 10, 2019. Ms. Kieser was unaccompanied during the site reconnaissance. Weather conditions at the time of the site visit was 5 degrees Fahrenheit and sunny. Wenck staff visually observed the Subject Property to identify current land use, obtain evidence of past uses, and to identify surface characteristics of the Subject Property for the presence of RECs, CRECs or HRECs. Subject Property photographs are included in **Appendix I**.

The site reconnaissance consisted of visually observing the interior and exterior portions of the Subject Property. Wenck staff observed (from the Subject Property boundaries) the adjoining properties for evidence of RECs, CRECs or HRECs, and for indications of past and current land use.

As noted in Section 3.1, the Subject Property consists of one multi-tenant commercial/retail building with a paved parking lot, drive areas, and greenspace (Photographs 1 - 7). The commercial building is two levels with the upper level tenant spaces accessed from the east side of the building off Shady Oak Road (Photographs 8 - 11) and the lower level tenant spaces accessed by a walkout basement level on the west side of the building (Photographs 12 - 15). The building was unoccupied at the time of the site reconnaissance.

The building is served by utility electric, gas and telephone services. Municipal water and sanitary sewer system also serve the facility. The building is heated by a natural gas boiler, and heated and cooled by natural gas-powered HVAC units. The commercial building was formerly serviced by a septic system located west of the building. Based on city records, public sanitary sewer and municipal water utilities were available to the Subject Property between 1972 and 1977. Stormwater appears to drain to the west towards an off-site pond.

6.1.1 Materials Management

The Subject Property is vacant, and no materials are currently managed at the Subject Property.

6.1.2 Solid and Hazardous Waste Management

No refuse is currently generated at the Subject Property.

Historical hazardous waste generation by Shady Oak Veterinary Clinic, Kline Corp DBA Practical Systems, Knight Machining, and Midtool Co. was documented in the GeoSearch Radius Report and is discussed in greater detail above in Section 5.1.1.

6.1.3 Aboveground and Underground Storage Tanks (ASTs/USTs)

Wenck observed evidence of a vent pipe on the west side of the building (Photograph 16). This pipe may be associated with a former fuel tank or the former septic system. The Subject Property Representative stated that he is not aware of any current ASTs/USTs.



6.1.4 Interior and Exterior Surface Observations

Wenck observed no evidence of soil subsidence, surface staining, pooled liquids, stressed vegetation, fill soil piles or debris piles on the Subject Property.

6.1.5 Pits, Sumps, Oil-Water Separators and Floor Drains

Wenck did not observe the presence of pits, sumps, or oil-water separators at the time of the site reconnaissance. Floor drains were observed in select restrooms within the commercial building.

6.1.6 Wastewater and Stormwater Discharge Systems

The Subject Property is served by the municipal sanitary sewer system. City records show that the commercial building was formerly connected to an on-site septic system until approximately 1977. Stormwater at the Subject Property appears to drain toward an off-site pond to the west.

6.1.7 Wells, Drywells and Lagoons

Wenck observed one well located under a stairwell in a lower level space. An additional well was observed during the 2016 Phase I ESA outside to the building to the north; however due to the amount of snow, this well was not observed during this site reconnaissance. Wenck did not observe the presence of drywells or lagoons at the time of the site reconnaissance.

There are no wells listed for the Subject Property on the Minnesota County Well Index.

6.1.8 Polychlorinated Biphenyls (PCBs) and Oil-Containing Equipment

Wenck observed one pole-mounted transformer to the west of the commercial building at the time of the site reconnaissance. The pole-mounted transformer did not show evidence of leaks or spills at the time of the site reconnaissance.



7.1 INTERVIEW WITH SUBJECT PROPERTY REPRESENTATIVE

Date of Interview:	
Name:	
Affiliation:	

December 12, 2019

Mr. Robert Hanson Economic Development Coordinator for the City of Minnetonka 952-939-8234

Telephone Number:

Wenck interviewed Mr. Hanson regarding his knowledge of the Subject Property. Mr. Hanson indicated the current commercial building has been completely vacant since October 2019 with Chalet Pizza, an ammo craft gun shop, a sewing and alteration shop, a tool and die company, an animal hospital, an animal shelter, and electrical supply store, a tobacco shop, and a hair salon as the last tenants. He indicated the Subject Property is currently connected to municipal water and sewer supply. Mr. Hanson was aware of the previous environmental reports conducted at the Subject Property and their conclusions, which are discussed above in Section 5.4.

7.2 INTERVIEW WITH LOCAL GOVERNMENT OFFICIAL

Date of Interview:	November 27, 2019
Name:	Maria Jimenez
Affiliation:	City of Hopkins Inspection Department
Telephone Number:	952-548-6320

Wenck contacted the City of Hopkins for records associated with the southern parcel, 2 Shady Oak Road. Ms. Jimenez provided the permit history for the parcel, which is discussed above in Section 5.2.2.

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November 27, 2019 Dale Specken City of Hopkins Fire Chief 952-548-6451

Wenck contacted the City of Hopkins Fire Department for records associated with the southern parcel, 2 Shady Oak Road. Mr. Specken indicated they did not have any records of storage tanks in the ground or that have been removed associated with 2 Shady Oak Road.



8.1 DATA GAPS

Historical information was reviewed back to 1896. Data gaps greater than five years exist from prior to 1896, from 1901 to 1937, from 1940 to 1947, and from 1947 to 1953.

The interviews, historical maps, city directories, aerial photographs, and previous environmental reports provide generally good corroborating information that allows an understanding of historical Subject Property use. A research summary is included as **Appendix J**.

Wenck considers the evaluation of the presence of RECs, CRECs and HRECs to be complete, based on the lack of identified changes in land use during the periods affected by data gaps of more than five years. Therefore, we do not recommend additional investigation relative to the resolution of those data gaps, as we do not believe it would materially affect our conclusion.

8.2 IDENTIFIED FINDINGS

Wenck was authorized by Ron Clark to conduct this Phase I ESA of the property and improvements located at 4312 Shady Oak Road, Minnetonka, Hennepin County, Minnesota; the Subject Property. The Subject Property consists of 2.32 acres occupied by an approximately 25,680-square-foot multi-tenant commercial/retail building with a paved parking lot, drive areas, and greenspace. Access to the Subject Property is from Shady Oak Road and Oak Drive Lane.

The building on the 4312 Parcel is two levels. The upper level tenant spaces are accessed from the east side of the building off Shady Oak Road and the lower level tenant spaces are accessed by a walkout basement level on the west side of the building. The building was unoccupied at the time of this report.

According to reviewed sources of information, the Subject Property was undeveloped land from at least 1896 until 1941, when the historical commercial building was constructed on the south parcel. The current commercial building on the north parcel was then constructed in 1951. In 1998, the historical south parcel building was destroyed in a fire and then further demolished. Based on city records, historical occupants of the south parcel building include Johnson Super Valu, grocery store, and Hopkins Sports Center, motorcycle sales and service. Historical occupants of the current building include Dahl's Cleaners and Laundry, Chalet Pizza, Tonka Pets, Val's Styling Salon, H&R Block, Liberty Tool & Engineering, Excel Interiors, Knight Machining, Gardner Pastry Shop, Shady Oak Floral, Ammo Craft, and other commercial and light industrial tenants.

Wenck reviewed building permits and records for the Subject Property at the City of Minnetonka. Dahl's Cleaners and Laundry were noted in the City file as a drycleaner tenant at the Subject Property at the 4312 Parcel building and the file notes a dry-cleaning machine was installed in 1962. In addition, the current building was originally constructed with a septic system consisting of a 10' wide x 40' long x 8' in height septic tank and four 675-gallon sized concrete cesspools. The septic system was located on the west side of the 4312 parcel in the parking lot area. It is unknown if the system was removed. The city



water and sewer connection to the commercial structure was completed around 1972-1977 according to City Records.

The Subject Property **was** identified on the following reviewed regulatory databases in the GeoSearch Radius Report for Chalet Pizza Building, Shady Oak Veterinary Clinic, Kline Corp DBA Practical Systems, Midtool Co, Knight Machining, and 4312 Shady Oak Redevelopment:

- Brownfields Management System (BF)
- Enforcement and Compliance History Information (ECHOR05) 4 listings
- ▲ Facility Registry System (FRSMN) 6 listing
- Petroleum Brownfields Program Sites (PBF)
- Resource Conservation and Recovery Act Generator (RCRAGR05) 3 listings
- Resource Conservation and Recovery Act Non-Generator (RCRANGR05)
- Voluntary Investigation and Cleanup Program Sites (VICP)
- ▲ What's In My Neighborhood Database (WINM) 4 listings
- MPCA Remediation Sites (REMSITES)

BF Listing

The Subject Property is listed as a BF site that consists of 1.62 acres of land occupied by a laboratory, veterinary clinic and machine shop with unknown previous use. The BF listing is related to a Phase I Environmental Assessment completed at the Subject Property on September 21, 2007. The 2007 Phase I ESA was reviewed which stated there were no identified RECs.

ECHOR05, RCRAGR05, and RCRANGR05 Listings

The ECHOR05, RCRAGR05, and RCRANGR05 listings are in reference to hazardous waste generation at the Subject Property from the following tenants: Shady Oak Veterinary Clinic, Kline Corp DBA Practical Systems, Knight Machining, and Midtool Co. Records associated with the hazardous waste generation were provided by Hennepin County. Hazardous waste generated at the 4312 parcel included used x-ray fixer and film, Stoddard solvent, used oil, fluorescent lamps, metal working fluid, and mixed unrelated lab chemicals. Inspections of the tenants were completed in 1990, 1993, 1994, 1997, 1998, and 2005 with identified violations including various administrative in nature violations. These types of violations are not indicative of a release or a material threat of release at the facility. Based on the type of violations, these listings are not considered a threat to soil, groundwater, and/or soil vapor conditions at the Subject Property, and therefore, are not considered to represent RECs for the Subject Property.

FRSMN Listing

A listing in the FRSMN database is not indicative of a release or a material threat of release of petroleum products or potentially hazardous substances at the facility, and therefore, these listings are not considered to represent RECs for the Subject Property.

PBF, VICP, and REMSITES Listings

The PBF, VICP, and REMSITES listings are related to environmental investigations completed at the 3412 Parcel and the west adjacent site in 2014 through 2017. Environmental assessments have identified impacted soil located within the upper 6-feet in the northeastern and central portions of the Subject Property. The soil contains PCE and PCBs above their respective MPCA SLVs. The soil also contains DRO in excess of 100 mg/kg, which is listed by the MPCA as criteria for the definition of unregulated fill. Soil vapor testing identified the presence of PCE exceeding 33x the Residential ISV and TC) above the laboratory detection limits, but not above the MPCA 33X Residential ISV.



Wenck observed one well located under a stairwell in a lower level space during the site reconnaissance. An additional well was observed during the 2016 Phase I ESA outside the building to the north; however due to the amount of snow, this well was not observed during this site reconnaissance. According to the Minnesota Department of Health (MDH) County Well Index (CWI), the wells at the Subject Property are not registered. If the well remains in use it should be registered and maintained with the MDH and/or sealed by a licensed contractor. In addition. A vent pipe was observed on the west side of the building. This pipe may be associated with a former fuel tank or former septic system.

Mapped sites of regulatory interest revealed within the GeoSearch Radius Report are not considered RECs, HRECs, or CRECs. Based on the review of the revealed sites of regulatory interest, including unmapped site listings revealed within search radii defined by the Practice, we identified no material threat of release to the Subject Property from adjacent or upgradient properties.

8.3 **OPINIONS**

The following opinions are based on the above findings:

- City records show a former septic system with four concrete cesspool tanks located on the west side of the building. The septic system and cesspools were in use until approximately 1977. City records also show that a dry-cleaner tenant formerly operated at the Site in the 1960s. Dry cleaners are known to use hazardous materials including chlorinated solvents. In addition, the various machine shops at the Subject Property historically used small quantities of various oils and solvents. The former septic system and cesspools at the Subject Property represent pathways for potential releases of hazardous materials to the subsurface. The use of the Subject Property as a drycleaner and machine shops with the septic and cesspool system is considered an REC.
- ▲ A Phase II Subsurface Investigation completed at the Subject Property identified DRO, VOCs and PCBs above MPCA and MDH established risk criteria in the soil, groundwater, concrete and soil vapor at the Subject Property. The identified release to multiple materials at the Subject Property is considered a REC.
- The water wells and septic system at the Subject Property are considered business environmental risks. According to the Minnesota Department of Health (MDH) County Well Index (CWI), the wells at the Subject Property are not registered. If the wells remain in use it should be registered and maintained with the MDH and/or sealed by a licensed contractor. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations.

8.4 CONCLUSIONS

Wenck performed a Phase I ESA in conformance with the scope and limitations of the ASTM Phase I Standard and in accordance with the AAI Rule (40 CFR Part 312) of the property and improvements of 4312 Shady Oak Road in Minnetonka, Hennepin County, Minnesota. Exceptions to, or deletions from, the ASTM Phase I Standard are described in Section 2.3 and Section 2.4 of this report.

This ESA has identified the following RECs relative to the Subject Property:



- The presence of historical machine shop and drycleaner tenants at the Subject Property that handled various oils and solvents and operated at the same time as the former septic and cesspool system is considered an REC.
- ▲ A Phase II Subsurface Investigation completed at the Subject Property identified DRO, VOCs and PCBs above MPCA and MDH established risk criteria in the soil, groundwater, concrete, and soil vapor at the Subject Property. The identified release to multiple materials at the Subject Property is considered a REC.

This ESA has identified no evidence of CRECs or HRECs in connection with the Subject Property.

Although not considered RECs, CRECs, or HRECs; this ESA has revealed the following items that constitute business environmental risks:

- There are two wells not in use on the 4312 parcel. According to the Minnesota Department of Health, a well must be in use, be under a maintenance permit, or be sealed by a licensed contractor.
- A former septic system may still be present to the west of the building. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations.



Assessments of potential environmental issues or conditions at the Subject Property that may relate to commercial real estate activities, but were not part of this scope of work (unless otherwise noted) include the following:

- Asbestos Survey
- A Radon Gas Survey
- ▲ Lead-Based Paint Assessment
- Lead in Drinking Water Evaluation
- Wetland Delineation
- Regulatory Compliance Audit
- Cultural and Historic Resources Review
- ▲ Industrial Hygiene Review
- Health and Safety Assessment
- Ecological Resources Evaluation
- Endangered Species Survey
- Indoor Air Quality Evaluation
- Mold Investigation
- High Voltage Power Lines Assessment

This list is not intended to be all-inclusive and is not intended to imply significance of further investigation into these non-scope items.



- American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13,* West Conshohocken, PA, 2013.
- Berthold, Angela J. Surficial Geology. Minnesota Geological Survey, County Atlas Series, Atlas C-45, Part A, Plate 3. 2018.
- Retzler, Andrew J. Bedrock Geology. Minnesota Geological Survey, County Atlas Series Atlas C-45, Part A, Plate 2. 2018.
- Retzler, Andrew J. Depth to Bedrock. Minnesota Geological Survey, County Atlas Series Atlas C-45, Part A, Plate 6. 2018.
- Kanivetsky, Roman. Quaternary Hydrogeology. Minnesota Geological Survey, County Atlas Series C-4, Plate 5. 1989.

Other materials referenced in this report are included in the Appendices.



We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in 312.10 of 40 CFR Part 312, and we 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 the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Rachel Kieser Environmental Scientist

Reviewed by:

Adam P. Zobel Senior Environmental Project Manager



Company Experience

WENCK ASSOCIATES, INC. is a full-service environmental consulting firm that specializes in providing comprehensive environmental, regulatory, and safety guidance for our client's real estate asset protection, redevelopment and development needs. Collectively, Wenck offers our clients over 25 years of experience, depth of technical and regulatory knowledge and expertise in the following service areas:

- Environmental Assessment Services (Phase I and II)
- ▲ Site Preparation/Planning Services
- Integrated Site Remediation and Risk-based Response Actions
- Storage Tank Removal, Replacement and Compliance
- Stormwater Management Plans and Permitting (NPDES requirements, etc.)
- Wetlands Delineation and Mitigation
- Environmental Permitting and Compliance
- Asbestos and Lead Identification and Abatement
- Voluntary Cleanup Programs and Guidance on Public Funding Mechanisms for Brownfield Redevelopment
- Indoor Air Quality Assessment
- Facility Layout Review for Environmental and Safety Efficiency
- Environmental Impact Assessments (EIA) and Statements (EIS), Environmental Assessment Worksheets (EAW), Alternative Urban Areawide Review (AUAR)
- ▲ Traffic Engineering
- Pollution Prevention Plans
- Greenhouse Gas Services

Wenck strives to provide our clients with strategic, high quality and cost-effective services that are customized to their specific needs. For more extensive information on the services we provide please refer to <u>www.wenck.com</u>.



Individual Bios

Adam Zobel

Mr. Zobel is a Senior Environmental Project Manager within the Real Estate Resources Group at Wenck Associates, Inc. He has over 17 years of environmental consulting experience assisting clients with transaction-based environmental due diligence, brownfield redevelopment, petroleum and non-petroleum release investigations, and remediation. Mr. Zobel holds a Bachelor of Arts in Biology with a Concentration in Business Management Studies from St. Olaf College in Northfield, Minnesota.

Rachel Kieser, EIT

Ms. Kieser is an Environmental Scientist within the Real Estate & Development Group at Wenck Associates Inc. (Wenck). She has experience working on diverse projects including environmental site assessments and investigations. Ms. Kieser has been a part of many projects that included transaction-based due diligence, collecting, and analyzing a variety of environmental samples. Ms. Kieser holds a Bachelor of Environmental Engineering from the University of Minnesota and an Engineer-In-Training (EIT) Certification.



- Site Location Map Site Detail Map 1. 2.



