

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT**

for
Pittsfield Charter Township

of the
**Undeveloped Parcel (3.98 acres)
West Waters Road and Oak Valley Drive
Ann Arbor, Michigan 48103**

Detroit, Michigan

August 10, 2018

ECT No. 180469-0100

Signature(s) of Environmental Professional(s)

The dual signatory process is an integral part of Environmental Consulting & Technology, Inc.'s (ECT's) Document Review Policy No. 9.03. All ECT documents undergo technical/peer review prior to dispatching these documents to any outside entity.

The environmental assessment described herein was conducted by the undersigned employees of ECT. ECT's investigation consisted solely of the activities described in the Introduction of this report, and in accordance with the Terms and Conditions of the Standard Consulting Services Agreement signed prior to initiation of the assessment, as applicable.

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professionals as defined in §312.10 of 40 C.F.R. 312. 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 C.F.R. Part 312.

This document has been authored and reviewed by the following employees:

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August 7, 2018
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List of Acronyms

AAI	All Appropriate Inquiry
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
AUL	Michigan Activity Use Limitations
BEA	Baseline Environmental Assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CREC	Controlled Recognized Environmental Condition
DWSD	Detroit Water and Sewerage Department
ECT	Environmental Consulting & Technology, Inc.
EDR	Environmental Data Resources, Inc.
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Registry System
HREC	Historical Recognized Environmental Condition
MDEQ	Michigan Department of Environmental Quality
NonGen	Non-generator
LUST	Leaking Underground Storage Tank
PCB	Polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RRD	Remediation and Redevelopment Division
SEMS	Superfund Enterprise Management System
SWF/LF	Solid Waste Facilities/Landfill
USGS	United States Geological Survey
UST	Underground Storage Tank
WDS	Waste Data System

1.0 Summary

Environmental Consulting & Technology, Inc. (ECT) was retained by Pittsfield Charter Township (the Client) to perform a Phase I Environmental Site Assessment (ESA) of the approximately 3.98-acre parcel located at the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Charter Township, Washtenaw County, Michigan (herein referred to as the Subject Property). A Site Location Map is provided as **Figure 1**.

The Client is the prospective purchaser who is considering acquisition of the Subject Property. The purpose of this assessment was to identify potential adverse environmental conditions associated with the Property, which include any Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs) or Controlled Recognized Environmental Conditions (CRECs) that may exist or have existed on the Subject Property. The research attempted to identify conditions indicative of an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products. RECs, HRECs and CRECs do not include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Based on a review of reasonably ascertainable historical records, the Subject Property has historically been used as agricultural land as early as 1937 through approximately the late 1980's. At the time of the site reconnaissance, the Subject Property was undeveloped, covered by grass and densely vegetated woodland. A Site and Surrounding Properties Map is provided in **Figure 2**.

ECT has performed this Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-13 of the approximately 3.98-acre parcel located at the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Township, Washtenaw County, Michigan. This assessment identified one (1) REC, no HRECs, and no CRECs in connection with the Subject Property. Based on these findings, ECT believes that additional site investigation in the form of subsurface sampling activities at the Subject Property are not required.

A *de minimis* condition was identified in connection with the Subject Property during this assessment:

- The Subject Property has been historically used as agricultural land with the potential of historical pesticide, herbicide, and fertilizer use as early as 1937 until approximately the late 1980's. However, there was no indication of improper applications or excessive use of the materials, and no evidence of stained soil or stressed vegetation.

2.0 Introduction

At the request of the Client, ECT has conducted a Phase I ESA of the Subject Property, situated at the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Township Michigan. The Subject Property is part of the Northwest ¼ of Section 7, 3 South, Range 6 East, in Washtenaw County, Michigan.

The land area subject to this Phase I ESA is comprised of a single parcel, containing approximately 3.98 acres of undeveloped land. At the time of the site reconnaissance, the Subject Property was undeveloped, covered by grass and densely vegetated woodland.

The purpose of ASTM Practice E 1527-13 is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment* of *commercial real estate* properties with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 42 U.S.C. §9601) and *petroleum products*. The goal of the processes established by ASTM Practice E 1527-13 is to identify *recognized environmental conditions (RECs)* and *de minimis* conditions. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report.

The objective of Phase I ESAs is to provide *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35) (B) to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitations on CERCLA liability (a.k.a., *landowner liability protections*). The goal of Phase I ESAs is to identify current, historical, and controlled recognized environmental conditions (RECs) and *de minimis* conditions in connection with the property, to the extent feasible pursuant to the processes prescribed in the ASTM E 1527-13 guidelines. The terms current, historical, and controlled RECs and *de minimis* conditions are defined by ASTM in the following paragraphs.

A current REC is 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 includes hazardous substances or petroleum products even under conditions in compliance with laws.

A historical REC 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.

A controlled REC is a *REC* resulting from a past *release* of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls (for example, *property* use restrictions, *activity and use limitations, institutional controls, or engineering controls*).

A *de minimis* condition is a condition that generally does not present a threat to human health or the *environment* and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not current, historical, or controlled *RECs*.

2.1 Detailed Scope of Services

The Phase I ESA conducted by ECT included, but was not limited to, the following services:

- A site reconnaissance of the Subject Property to look for evidence of a release(s) or potential release of petroleum products and hazardous materials;
- Observations of adjacent properties and the site vicinity;
- Interviews with individuals familiar with the Subject Property, as available;
- Review of regulatory agency and local files, as necessary;
- Review of historical documents, as available; and,
- Preparation of a report presenting ECT's findings, including a summary of conclusions and recommendations.

2.2 Significant Assumptions

ECT assumes that the information provided by the regulatory database electronic search report provider, the regulatory agencies, the local unit of government, and the current Subject Property owner is true and reliable.

2.3 Limitations and Exceptions

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ECT and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended or given. To the extent that ECT relied upon any information prepared by other parties not under contract to ECT, ECT makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

The findings presented in this report apply solely to site conditions existing at the time when ECT's assessment was performed. It must be recognized, however, that an ESA is intended for the purpose of determining the potential for contamination through limited research and investigative activities and in no way represents a conclusive or complete site characterization. Conditions in other parts of the Subject Property may vary from those at the locations where data were collected. ECT's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in ESA conclusions cannot reasonably be achieved.

ECT, therefore, does not provide any guarantees, certifications, or warranties that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

2.4 Special Terms and Conditions

The scope of work for this Phase I ESA did not include testing of electrical equipment for the potential presence of polychlorinated biphenyls (PCBs), lead based paint, or the assessment of natural hazards such as naturally-occurring asbestos, radon, or methane gas, assessment of the potential presence of radionuclides, or assessment of non-chemical hazards such as the potential for damage from earthquakes or floods. This Phase I ESA also did not include an extensive assessment of the environmental compliance status of the Subject Property or of the businesses that have operated on-site, or a health-based risk assessment.

2.5 User Reliance

This Phase I ESA was conducted for the use of and reliance by the Client and their assignees and may be relied upon by these parties only. No use of the information contained in this report by others is permissible without receiving prior written authorization to do so from ECT. ECT is not responsible for independent conclusions, opinions, or recommendations made by others or otherwise based on the findings presented in this report.

3.0 Site Description

3.1 Location and Legal Description

The Subject Property is comprised of a single parcel containing approximately 3.98 acres of undeveloped land, situated at the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Township, Michigan. The Subject Property is part of the Northwest ¼ of Section 7, Township 3 South, Range 6 East, in Washtenaw County, Michigan. The legal description of the Subject Property is below:

Parcel #L-12-07-200-003: “*OLD SID – L-12-007-019-00 PI 7-5H-1 COM AT N ¼ COR OF SEC 7, TH W 649.95 FT ON N/L OF SECTO POB, TH W 292 FT ON SAID N/L, TH DEFL 89-42-30 LFT 594 FT, TH DEFL 90-17-30 LFT 292 FT, TH DEFL 89-42-30 LFT 594 FT TO POB PART NW ¼ SEC 7 T3S R6E 3.98 AC.”

3.2 Site and Vicinity General Characteristics

The Subject Property is situated along the south side of West Waters Road and along the west side of Oak Valley Drive, in Pittsfield Charter Township, Michigan. The Subject Property has an approximate elevation of 917 feet above sea level and is topographically flat. During the site visit, the Subject Property was observed to be approximately three (3) feet higher than the sidewalk bordering to the north. The surrounding area is a mixture of residential and commercial properties.

3.3 Current Use of the Property

At the time of the site reconnaissance, the Subject Property was undeveloped, covered by grass and densely vegetated woodland. Overhead utility lines transected through the south central portion of the Subject Property, and a drain was observed in the vegetated areas throughout the southern portion of the Subject Property. A Site and Surrounding Properties Map is provided in **Figure 2**.

3.4 Previous Site Investigations

Previous site investigations were not provided to ECT.

3.5 Descriptions of Structures, Roads, and Other Improvements on the Site

3.5.1 General Descriptions of Structures

At the time of the site visit, no structures were observed on the Subject Property.

3.5.2 Roads

The Subject Property can be accessed by West Waters Road to the north and by Oak Valley Drive to the east.

3.5.3 Potable Water Supply

The Subject Property is currently not connected to potable water supplies. However, the surrounding properties are supplied with potable water from Ypsilanti Community Utilities Authority.

3.5.4 Sewage Disposal System

The Subject Property is currently not connected to sanitary sewer service. However, the surrounding properties are supplied with sanitary sewer service from Ypsilanti Community Utilities Authority.

3.6 Current Uses of the Adjoining Properties

The Subject Property is bordered to the north by West Waters Road and to the east by Oak Valley Drive. Opposite of West Waters Road, residential properties are observed in the north direction. Opposite of Oak Valley Drive, the east adjoining property is commercially developed and occupied by a mixed retail structure, including restaurants, salons, and a grocery store. The Subject Property is bordered to the south by undeveloped land; a residential dwelling is observed further south. A residential property, occupied by a dwelling, a garage, and a shed, borders the Subject Property to the west.

4.0 User Provided Information

On July 30, 2018, an interview was conducted via telephone with Mr. Mark Pascoe, P.E of Stantec, who has been retained by the Township. His responses were used to complete the User Provided Information section of this report.

4.1 Title Records

An environmental chain-of-title search was not provided to ECT by the Client. Based on reasonably ascertainable resources, the Subject Property is currently owned by Waters Oak Valley LLC.

4.2 Environmental Liens or Activity and Use Limitations

Mr. Pascoe was asked the following questions as part of the assessment:

- Are you aware of any environmental cleanup liens against the Subject Property that are filed or recorded under federal, tribal, state or local law?
- Are you aware of any activity or land use limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Mr. Pascoe indicated that he was not aware of any activity or land use limitations, or environmental liens that have been filed or recorded against the Subject Property under federal, tribal, state or local law.

ECT reviewed the Michigan Department of Environmental Quality (MDEQ) Remediation and Redevelopment Division (RRD) Perfected Lien List to identify if any environmental liens had been placed on the Subject Property. The Perfected Lien List is updated when the RRD has perfected a new lien on a property or has released a lien from a property. The list, updated through May 4, 2018, did not identify any environmental liens associated with the Subject Property.

4.3 Specialized Knowledge

Mr. Pascoe was asked the following questions as part of the assessment:

- Do you have any specialized knowledge or experience related to the Subject Property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Subject Property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

- Are you aware of commonly known or reasonably ascertainable information about the Subject Property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:
 - a) Do you know the past uses of the Subject Property?
 - b) Do you know of specific chemicals that are present or once were present at the Subject Property?
 - c) Do you know of spills or other chemical releases that have taken place at the Subject Property?
 - d) Do you know of any environmental cleanups that have taken place at the Subject Property?
- Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property?
- Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Subject Property?
- Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Mr. Pascoe indicated the Subject Property is vacant with no prior development. Mr. Sallen indicated he was unaware of any spills, releases, cleanups, or litigations associated with the Subject Property.

4.4 Commonly Known or Reasonably Ascertainable Information

Mr. Pascoe indicated he has no knowledge of any environmental response activities to have taken place, and no knowledge of any obvious indicators that point to the presence or likely presence of releases at the Subject Property. However, Mr. Pascoe stated that a geotechnical survey conducted on the Subject Property which indicated that the site has been filled with compacted sand and occasional broken brick and concrete. He is unaware of when the site was filled, the origin of the fill material, and if the fill material has been characterized for potential contaminants.

4.5 Valuation Reduction for Environmental Issues

Mr. Pascoe is not aware of any valuation reduction due to environmental issues associated with the Subject Property.

4.6 Owner, Property Manager, Occupant Information

The Subject Property is unoccupied and owned by Waters Oak Valley LLC.

4.7 Reason for Performing Phase I ESA

The reason for performing this Phase I ESA is to evaluate the presence/absence of RECs in anticipation of a potential property transfer.

5.0 Records Review

The following section presents the results of a review of regulatory agency file information and ECT's historical records review, including aerial photographs, topographic maps, Sanborn Fire Insurance maps, and city directories pertaining to the Subject Property, adjacent properties, and proximate properties.

5.1 Standard Environmental Record Sources

Regulatory agency database information was obtained from Environmental Data Resources, Inc., (EDR), which maps and lists properties in federal and state environmental databases with existing conditions or status that may have the potential to affect the Subject Property. The EDR Radius Map™ Report with Geocheck® is provided as **Appendix A**.

5.1.1 Federal and State Environmental Record Sources

Table 1-1 provides a summary of the databases that were reviewed in accordance with the ASTM E 1527-13 requirements.

Table 1-1. Regulatory Database Information

Type	Regulatory Agency Database	Approximate Minimum Search Distance	Number of Sites within Approximate Minimum Search Distance
Federal	National Priority List (NPL) Sites	1 mile	0
Federal	Delisted National Priority List (NPL) Sites	1 mile	0
Federal	Superfund Enterprise Management System (SEMS) formerly known as Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Sites	½ mile	0
Federal	SEMS-ARCHIVE, formerly known as the CERCLIS No Further Remediation Action Planned (NFRAP) Sites	½ mile	0
Federal	Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Sites	1 mile	0
Federal	RCRA non-CORRACTS Treatment, Storage or Disposal (TSD) Sites	½ mile	0
Federal	RCRA Large Quantity Generators (LQG) Sites	¼ mile	1
Federal	RCRA Small Quantity Generators (SQG) Sites	¼ mile	1
Federal	RCRA Conditionally Exempt Small Quantity Generators (CESQG) Sites	¼ mile	2
Federal	Institutional/Engineering Controls	½ mile	0
Federal	Emergency Response Notification System	Site	0
State	State and Tribal Equivalent CERCLIS (SHWS)	1 mile	0
State	Solid Waste Disposal/Landfill (SWF/LF) Sites	½ mile	0
State	Leaking Underground Storage Tanks (LUST)	½ mile	1
State	Underground Storage Tanks (UST)	¼ mile	0

State	Institutional/Engineering Controls	½ mile	1
State	Brownfields	½ mile	0
State	Baseline Environmental Assessments (BEA)	½ mile	0

The Subject Property was not identified in any environmental databases.

Further review of sites identified in the EDR report that adjoin the Subject Property were evaluated for potential environmental concerns. Opposite of Oak Valley Drive, Bitech Inc. of North Carolina (Performance Bicycle) is a part of the mixed retail structure that adjoins the Subject Property to the west and is listed under the RCRA-CESQG database. However, no violations have been found. No other adjoining properties were identified in environmental databases.

5.2 Additional Environmental Record Sources

EDR provides Exclusive Records containing manufactured gas plant (MGP), US Historical Auto Station, and US Historical Cleaners properties. Opposite of Oak Valley Drive, Village Center Cleaners was a part of the mixed retail structure that adjoins the Subject Property to the west and is listed under the US Historical Cleaners database in 1999 as a dry-cleaning plant. No other properties were listed in EDR's Exclusive Records. The orphan summary list in the EDR-Radius Map report identifies properties that cannot be mapped due to poor or inadequate address information. No properties were listed on the orphan summary list.

5.3 Physical Setting Source(s)

ECT reviewed the 2014 U.S. Geological Survey (USGS) 7.5-Minute Series quadrangle map of Saline, Ann Arbor East, Ypsilanti West, and Ann Arbor West, Michigan. The Subject Property is located in a mostly residential area at an approximate elevation of 917-feet above mean sea level. West Waters Road and Oak Valley Drive are depicted where they currently lie today.

5.4 Historical Use Information on the Property

To evaluate historical use of the property, ECT reviewed readily available topographic maps, aerial photographs, street directories, and fire insurance maps.

5.4.1 Topographic Maps

ECT obtained available historical topographic maps of the Subject Property and vicinity from EDR. Copies of the available historic topographic maps are provided as **Appendix B**. A summary of the maps obtained from EDR for the Subject Property is included in Table 1-2 below:

Table 1-2. Historical Topographic Maps (Subject Property)

Year	Quadrangle Map	Series	Description	
1904	Ann Arbor	30-minute	The Subject Property appears undeveloped, but the south central portion is illustrated with a creek flowing west to east. The Subject Property is bordered to the north by West Waters Road; no other roads border the Subject Property.	
1906	Saline	30-minute		
	South Lyon	30-minute		
	Ypsilanti	30-minute		
	Dexter	30-minute		
1908	Ann Arbor	30-minute	The Subject Property remains undeveloped, and the creek is not depicted. West Waters Road borders the Subject Property to the north; no other roads border the Subject Property.	
1965	Ann Arbor East	7.5-minute		
	Ann Arbor West	7.5-minute		
1967	Saline	7.5-minute		
	Ypsilanti West	7.5-minute		
1973	Ann Arbor East	7.5-minute		
	Ypsilanti West	7.5-minute		
1975	Saline	7.5-minute		
	Ann Arbor West	7.5-minute		
1983	Saline	7.5-minute		
	Ann Arbor East	7.5-minute		
	Ypsilanti West	7.5-minute		
	Ann Arbor West	7.5-minute		
2014	Saline	7.5-minute		The Subject Property remains undeveloped. The Subject Property is bordered to the north by West Waters Road and to the east by Oak Valley Drive.
	Ann Arbor East	7.5-minute		
	Ypsilanti West	7.5-minute		
	Ann Arbor West	7.5-minute		

5.4.2 Aerial Photographs

ECT obtained historical aerial photographs of the Subject Property and vicinity from EDR. A review of historical aerial photographs documents changes that have occurred in land uses and features located at the Subject Property and on adjoining properties. Copies of the historical aerial photographs are provided in **Appendix C**. Descriptions of the Subject Property, as shown on the aerial photographs, are summarized in Table 1-3 below.

Table 1-3. Aerial Photographs (Subject Property)

Year	Scale	Description
1937	1"=500'	The Subject Property appears to be used as agricultural land. A drainage creek appears extending from the west adjoining property to the south central portion of the Subject Property, then turning southward to transect through the south adjoining property. West Waters Road borders the Subject Property to the north; no other roads border the Subject Property.
1940	1"=500'	
1949	1"=500'	
1955	1"=500'	Trees are visible along the western edge of the Subject Property. However, the Subject Property remains mostly used as agricultural land. The drainage creek and West Waters Road remain unchanged.
1961	1"=500'	
1969	1"=500'	The Subject Property remains mostly used as agricultural land, with trees along the western edge. An outbuilding appears on the southwestern corner. The drainage creek and West Waters Road appear unchanged.
1973	1"=500'	The central portion of the Subject Property appears to be used as agricultural land, but the remaining portions appear to be covered with grass and scattered trees. A patch of land without vegetation is visible along the northern edge of the Subject Property. The drainage creek is not visible through the tree canopies; however, the tree coverage follows the shape of the drainage creek in previous aerial photographs. The outbuilding and West Waters Road appear unchanged.
1978	1"=500'	
1983	1"=500'	
1987	1"=500'	The outbuilding is not visible, and the Subject Property appears covered by bare soils and trees. The drainage creek is not visible through the tree canopies; however, the tree coverage follows the shape of the drainage creek in previous aerial photographs. West Waters Road appears unchanged.
1992	1"=500'	The Subject Property appears mostly covered by grass, with the draining creek visible. The Subject Property is bordered to the north by West Waters Road and to the east by Oak Valley Drive.
2006	1"=500'	The Subject Property remains covered by grass and trees. The drainage creek is not visible through the tree canopies; however, the tree coverage follows the shape of the drainage creek in previous aerial photographs. The Subject Property is bordered to the north by West Waters Road and to the east by Oak Valley Drive.
2009	1"=500'	
2012	1"=500'	
2016	1"=500'	

5.4.3 Street Directories

ECT obtained a City Directory Image Report for the Subject Property and its vicinity from EDR. The Subject Property currently does not have an address. EDR indicated that the Subject Property was located on Crest Street; however, ECT was unable to conclude the location of Crest Street. Street directories for Crest Street were available for years 1992, 1995, 2000, 2005, 2010, and 2014. Street directories for West Waters Road were available for years 1992 and 1995; street directories for Waters Road were available for years 2000, 2005, 2010, and 2014. The street directories indicated that the properties along Crest Street and West Waters Road were predominantly privately owned. A copy of the City Directory Image Report is provided as **Appendix D**.

5.4.4 Fire Insurance Maps

ECT obtained available Sanborn Fire Insurance Maps for the Subject Property and its vicinity from EDR. A copy of the Certified Sanborn Map Report is provided as **Appendix E**. The Subject Property and surrounding area were described as an unmapped region.

5.5 Historical Use Information on Adjoining Properties

To evaluate the historical use of the adjacent properties, ECT reviewed readily available topographic maps, aerial photographs, and fire insurance maps.

5.5.1 Topographic Maps

ECT obtained available historical topographic maps of the Subject Property and vicinity from EDR. Copies of the available historic topographic maps are provided as **Appendix B**. A summary of the maps obtained from EDR for the Subject Property is included in Table 1-4 below:

Table 1-4. Summary of Topographic Maps (Adjoining Properties)

Year	Quadrangle Map	Series	Description
1904	Ann Arbor	30-minute	The adjoining properties appear undeveloped, except for a single structure on the southeastern corner of the south adjoining property. A creek is visible extending from the west adjoining property through the east adjoining property.
1906	Saline	30-minute	
	South Lyon	30-minute	
	Ypsilanti	30-minute	
	Dexter	30-minute	
1908	Ann Arbor	30-minute	
1965	Ann Arbor East	7.5-minute	Opposite of West Waters Road, the north adjoining property remains undeveloped. Development features appear on the remaining adjoining properties: three single structures appear on the east adjoining property, two single structures are depicted on the southeastern corner of the south adjoining property, and a single structure is depicted on the west adjoining property. The creek is only illustrated on the east adjoining property.
	Ann Arbor West	7.5-minute	
1967	Saline	7.5-minute	
	Ypsilanti West	7.5-minute	
1973	Ann Arbor East	7.5-minute	
	Ypsilanti West	7.5-minute	
1975	Saline	7.5-minute	
	Ann Arbor West	7.5-minute	
1983	Saline	7.5-minute	
	Ann Arbor East	7.5-minute	
	Ypsilanti West	7.5-minute	
	Ann Arbor West	7.5-minute	
2014	Saline	7.5-minute	Development features are not represented, and the creek is not illustrated.
	Ann Arbor East	7.5-minute	
	Ypsilanti West	7.5-minute	
	Ann Arbor West	7.5-minute	

5.5.2 Aerial Photographs

ECT obtained historical aerial photographs of the Subject Property and vicinity from EDR. A review of historical aerial photographs documents changes that have occurred in land uses and features located at the Subject Property and on adjoining properties. Copies of the historical aerial photographs are provided in **Appendix C**. Descriptions of the adjoining properties, as shown on the aerial photographs, are summarized in Table 1-5 below.

Table 1-5. Aerial Photographs (Adjoining Properties)

Year	Scale	Description
1937	1"=500'	West Waters Road is visible. All adjoining properties appear to be used as agricultural land with scattered trees and drainage creeks. A residential dwelling with several outbuildings are visible on the southeastern corner of the south adjoining property.
1940	1"=500'	
1949	1"=500'	
1955	1"=500'	
1961	1"=500'	West Waters Road remains visible. Three residential dwellings appear on the east adjoining property, and a residential dwelling with several outbuildings appear on the west adjoining property. The north and south adjoining properties remain unchanged.
1969	1"=500'	
1973	1"=500'	West Waters Road remains visible. The southern edge of the south adjoining property is covered by trees; the residential dwelling and outbuildings are barely distinguishable through the tree canopies. The remaining adjoining properties appear unchanged.
1978	1"=500'	
1983	1"=500'	
1987	1"=500'	
1992	1"=500'	West Waters Road and Oak Valley Drive are visible. Opposite of Oak Valley Drive, a commercial structure with a parking lot appears on the east adjoining property. The remaining adjoining properties appear unchanged.
2006	1"=500'	West Waters Road and Oak Valley Drive are visible. Opposite of West Waters Road, a pond appears on the north adjoining property. A residential neighborhood is observed further north. The south adjoining property appears predominantly covered by grass with trees along the parameter; a residential dwelling and several outbuildings are observed on the southeastern corner. The east and west adjoining properties appear unchanged.
2009	1"=500'	
2012	1"=500'	
2016	1"=500'	

5.5.3 Street Directories

ECT obtained a City Directory Image Report for the Subject Property and its vicinity from EDR. Street directories for Crest Street were available for years 1992, 1995, 2000, 2005, 2010, and 2014. Street directories for West Waters Road were available for years 1992 and 1995; street directories for Waters Road were available for years 2000, 2005, 2010, and 2014. The street directories indicated that the properties along Crest Street and West Waters Road were predominantly privately owned. Commercial occupants along West Waters Road included Target, McDonalds, and a landscape architect firm. A copy of the City Directory Image Report is provided as **Appendix D**.

5.5.4 Fire Insurance Maps

ECT obtained available Sanborn Fire Insurance Maps for the Subject Property and its vicinity from EDR. A copy of the Certified Sanborn Map Report is provided as **Appendix E**. The Subject Property and surrounding area were described as an unmapped region.

5.6 Previous Investigations and Government Records

Previous investigations were not provided to ECT. A Freedom of Information Act (FOIA) request for the Subject Property was submitted to the Redevelopment and Remediation Division of the Michigan Department of Environmental Quality (MDEQ) on July 25, 2018. A response was received on July 31, 2018 indicating there are no records with regard to the Subject Property.

6.0 Site Reconnaissance

On July 23, 2018, Mr. John D’Addona performed a site reconnaissance of the Subject Property to observe general site conditions and indications of the possible release(s) of chemicals to the subsurface. A walkover site inspection was conducted to identify visible evidence of any RECs. Photographs taken during ECT’s site inspection are included in **Appendix F**.

Ms. Maura Gibbons of ECT prepared this Phase I ESA report documenting ECT’s observations and documentation review. Mr. Dirk Mammen provided the final technical review of this report. Qualifications for Mr. D’Addona, Ms. Gibbons, and Mr. Mammen are included in **Appendix G**.

6.1 Methodology and Limiting Conditions

ECT was provided full access to the Subject Property. A site perimeter walk was conducted of the Subject Property and adjoining properties were viewed from all public right of ways.

6.2 General Site Setting

6.2.1 **Current Use(s) of the Property**

At the time of the site reconnaissance, the Subject Property was undeveloped, covered by grass and densely vegetated woodland. Overhead utility lines transected through the south central portion of the Subject Property, and a drain was observed in the vegetated areas throughout the southern portion of the Subject Property. A Site and Surrounding Properties Map is provided in **Figure 2**.

6.2.2 **Past Use(s) of the Property**

No observations were seen to indicate the past uses of the Subject Property.

6.2.3 **Current Uses of Adjoining Properties**

The Subject Property is bordered to the north by West Waters Road and to the east by Oak Valley Drive. Opposite of West Waters Road, residential properties are observed in the north direction. Opposite of Oak Valley Drive, the east adjoining property is commercially developed and occupied by a mixed retail structure, including restaurants, salons, and a grocery store. The Subject Property is bordered to the south by undeveloped land; a residential dwelling is observed further south. A residential property, occupied by a dwelling, a garage, and a shed, borders the Subject Property to the west.

6.2.4 **Past Uses of Adjoining Properties**

No observations were seen to indicate the past uses of the adjoining properties.

6.2.5 Current or Past Uses in the Surrounding Area

The surrounding area is a mixture of residential and commercial properties. No observations were seen indicative of the past uses of the adjoining properties.

6.2.6 Geologic and Hydrogeologic Conditions

According to the map of Quaternary Geology of Southern Michigan, prepared by the University of Michigan's Department of Geological Science (dated 1982), the Subject Property is situated on glacial outwash sand and gravel and postglacial alluvium, with *"pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to heaving cobbles, mixed lithology of sedimentary, igneous, and metamorphic rocks, well- to poorly-sorted, well-stratified, in places crossbedded. Occurs as fluvial terraces along present and abandoned drainageways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. Includes narrow belts of Holocene alluvium inset below outwash terraces alongside present streams, but too limited to map separately. Thickness 1-20m."*

The EDR-Radius Map report stated that the Subject Property is underlain by bedrock of the Paleozoic Era, Mississippian System, and Osagean and Kinderhookian Series. The dominant soil composition in the general vicinity of the Subject Property is Blount loam. It has a loam soil surface texture and slow infiltration rates. Soil does not meet the requirements for a hydric soil.

6.3 Observations

The following items were searched for, or identification was attempted, as indicated in the ASTM standard.

6.3.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses

A search for petroleum product containers was completed during the site visit. No hazardous substances or petroleum product storage containers were noted.

6.3.2 Storage Tanks

A search for ASTs, USTs or vent pipes, fill pipes, or access ways indicating the presence of USTs was completed during the site reconnaissance. No ASTs, USTs, or evidence of USTs were observed on the Subject Property during the site reconnaissance.

6.3.3 Odors

The Subject Property was checked for strong, pungent, or noxious odors and their sources during the site visit. No odors were observed on the Subject Property at the time of the site reconnaissance.

6.3.4 Pools of Liquid

A search for standing surface water and pools or sumps containing liquids likely to contain petroleum products or hazardous substances was completed during the site visit. No pools of standing water were observed on the Subject Property at the time of the site reconnaissance.

6.3.5 Drums

Storage drums were looked for during the site visit. No drums were observed onsite.

6.3.6 Hazardous Substance and Petroleum Products Containers (not necessarily on connection with identified uses)

A search for petroleum products containers was completed during the site visit. No petroleum product or hazardous substance containers were noted.

6.3.7 Unidentified Substance Containers

A search for open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products was completed during the site visit. No containers containing unidentified substances suspected of being hazardous substance or petroleum products were observed on the Subject Property at the time of the site reconnaissance.

6.3.8 PCBs

A search for electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs was completed during the site visit. No PCB containing equipment was observed on the Subject Property at the time of the site reconnaissance.

6.3.9 Pits, Ponds, or Lagoons

A search for pits, ponds, or lagoons on the Subject Property and adjoining properties was completed during the site visit. Pits, ponds, or lagoons on properties adjoining the Subject Property were looked for to the extent they were visually and/or physically observable from the Subject Property. No pits, ponds or lagoons were observed on the Subject Property. Aerial photographs indicate a pond on the north adjoining property, opposite of West Waters Road. However, the pond was not observed during the site reconnaissance.

6.3.10 Stained Soil

Areas of stained soil were searched for during the site visit. No significant areas of stained soil were observed.

6.3.11 Stressed Vegetation

Areas of stressed vegetation (from other than insufficient water) were looked for during the site visit. No areas of stressed vegetation were observed.

6.3.12 Solid Waste

A search for areas that are apparently filled or graded by non-natural causes (or filled by unknown material) suggesting trash construction debris, demolition debris, or other solid waste disposal, or mounds or depressions suggesting trash or other solid waste disposal was completed during the site visit. A small debris pile, containing a mattress, clothing material, and concrete blocks were observed within the dense vegetation in the southern portion of the Subject Property during the site reconnaissance. The debris pile is considered minimal and does not pose an environmental risk.

Additionally, the elevation of the Subject Property is raised about three feet higher than the adjoining sidewalk along the northern edge, indicating the presence of filled material on the Subject Property.

6.3.13 Wastewater

A search for wastewater or other liquids (including storm water) or any discharge into a drain, ditch, underground injection system, or stream on or adjacent to the Subject Property was completed during the site

visit. At the time of the site reconnaissance, a drain was observed in the dense vegetation throughout the southern portion of the Subject Property. The drain was observed extending west to the south central portion of the Subject Property, then turning southward. No other wastewater or liquids were observed discharging into drains, ditches, underground injection systems, or streams on or adjoining the Subject Property.

6.3.14 Wells

Wells, including dry wells, irrigation wells, injection wells, monitoring wells, abandoned wells, or other wells, were looked for during the site visit. No wells were observed on the Subject Property during the site reconnaissance.

6.3.15 Septic Systems

Indications of onsite septic systems or cesspools were searched for during the site visit. No septic system tank was observed on the Subject Property.

6.4 Interviews with Site Contacts

Details of the User Questionnaire are included in Section 4.0, User Provided Information.

Mr. Pascoe indicated that the Subject Property has had no prior development. Mr. Pascoe indicated he was unaware of any spills, releases, cleanups, or environmental based litigation associated with the Subject Property.

No other relevant site contacts were identified or available to interview.

6.5 Interviews with Local Governmental Officials

No local government officials were contacted regarding this investigation.

7.0 Findings, Opinions and Conclusions

ECT has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 and the 30 CFR 312 (All Appropriate Inquiry) of the undeveloped parcel situated on the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Charter Township, Washtenaw County, Michigan. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report. ECT has performed this Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-13. This assessment has identified one (1) REC, no HRECs, and no CRECs in connection with the Subject Property. The following summary provides a description of the known or suspect RECs, historical RECs, controlled RECs, and *de minimis* conditions that were discovered during the Phase I ESA investigation.

7.1 RECs

One (1) REC was identified on the Subject Property. A geotechnical survey conducted on the Subject Property indicated that the site has been filled with compacted sand and occasional broken brick and concrete. There were no records available that provided information as to when the site was filled, the origin of the fill material, or if the fill material has been characterized for potential contaminants.

7.2 Historical RECs

No HRECs were identified on the Subject Property.

7.3 Controlled RECs

No CRECs were identified on the Subject Property.

7.4 *De Minimis Conditions*

One *de minimis* environmental condition was identified on the Subject Property.

- The Subject Property has been historically used as agricultural land with the potential of historical pesticide, herbicide, and fertilizer use as early as 1937 until approximately the late 1980's. However, there was no indication of improper applications or excessive use of the materials, and no evidence of stained soil or stressed vegetation.

7.5 Opinion

Based on these findings, ECT believes that an additional site investigation in the form of subsurface soil sampling activities at the Subject Property is warranted.

7.6 Conclusion

ECT performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Subject Property, an undeveloped parcel situated on the southwest corner of the intersection of West Waters Road and Oak Valley Drive, in Pittsfield Charter Township, Washtenaw County, Michigan. One (1) REC was identified during this Phase I ESA. ECT believes that an additional site investigation in the form of subsurface sampling activities at the Subject Property is warranted.

8.0 Deviations and Significant Data Gaps

The following deviations or “significant” data gaps, as defined by §312.10 of AAI final rule and §12.7 of ASTM E1527-13 that have been identified within this Phase I ESA are as follows:

- The All Appropriate Inquiry standard and ASTM practice indicates that the Tribal equivalent of the CERCLIS, Solid Waste Facilities/Landfill (SWF/LF), Institutional Control/Engineering Controls, Voluntary Cleanup, and Brownfield databases be searched. It is the understanding of ECT that these databases are not available for the State of Michigan. The impact of this deviation is considered negligible with regard to identifying RECs on the Subject Property.
- The uses of the Subject Property prior to 1904 were not identified.
- The dense vegetation in the woodland areas made it difficult to collect visual observations and photos.

ECT was able to determine the historical usage of the Subject Property from the information source available for review. Sufficient information was available to warrant a subsequent Phase II evaluation.

Photographs of the site conditions are included in **Appendix F**. No other deviations or “significant” data gaps were identified in this Phase I ESA.

9.0 Additional Services

The following additional services were not provided as part of this Phase I ESA:

- Asbestos containing materials assessment
- Lead-based paint survey
- Lead assessment in drinking water
- Radon assessment
- Wetlands determination
- Regulatory compliance analysis
- Inventory of cultural and historic resources
- Assessment of ecological resources
- Biological agents inventory
- Industrial hygiene assessment
- Endangered species assessment
- Health and safety assessment
- Mold assessment
- Indoor air quality characterization

10.0 References

ASTM Standard E 1527-13, "Specification Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," ASTM International, West Conshohocken, PA, 2013, 10.1520/E1527-13, www.astm.org.

Quaternary Geology of Southern Michigan, Michigan Department of Natural Resources, Geological Survey Division, 1982.

Environmental Data Resources, Inc., (EDR), EDR-Radius Map™ Report with GeoCheck®: Inquiry No. 5369404.2s, July 23, 2018.

EDR, The EDR Aerial Photo Decade Package: Inquiry No. 5369404.8, July 24, 2018.

EDR, The EDR Historical Topographic Map Report: Inquiry No. 5369404.4, July 23, 2018.

EDR, The EDR Sanborn Map Report: Inquiry No. 5369404.3, July 23, 2018.

EDR, The EDR City Directory Image Report: Inquiry No. 5369404.5, July 25, 2018.

Mich. Comp. Laws § 324.20126 (1994).

42 U.S.C. 9607(b)(3)

40 CFR § 312.