

## **Phase I – Environmental Site Assessment**

75 Breezehill Avenue  
Ottawa, Ontario

Prepared for 2729685 Ontario Inc. c/o Fotenn

**Report: PE6049-1**  
**August 8, 2023**

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## **EXECUTIVE SUMMARY**

### **Assessment**

Paterson Group was retained by Mr. Thomas Freeman to conduct a Phase I – Environmental Site Assessment (Phase I ESA) for 75 Breezehill Avenue, Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site (Phase I Property) and 250 m study area (Phase I Study Area) and to identify any environmental concerns with the potential to have impacted the Phase I property.

According to the historical research, the Phase I Property was utilized for commercial purposes as early as 1928 with a single commercial structure. Historical records indicated a commercial business in the 1930's utilized onsite gasoline storage of an unknown quantity. The commercial structure had undergone construction of two additions in approximately the 1940's and 1960's, respectively. The Phase I Property continues to be used for commercial purposes at this present time. Based on the construction of these additions in addition to the construction of the parking lot, fill material of unknown quality is expected to be present on the western portion of the Phase I Property. These potentially contaminating activity (PCA) are considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

The historical use of the surrounding properties within the Phase I Study Area were developed for industrial, commercial, and residential purposes. Several historical off-site potentially contaminating activities (PCAs) were identified within the Phase I Study Area. Historical records identified the presence of a former coal fuel/lumber storage yard and various automotive businesses/motor vehicle repair shops adjacent to the north of the Phase I Property and a printing facility to the south of the Phase I Property at 975 Gladstone Avenue. Based on orientation and/or separation distances, all other off-site PCAs are not considered to represent APECs on the Phase I ESA Property.

Presently, the Phase I Property is occupied with a two-storey mixed-use building, located in the eastern portion of the site, adjacent to the former railway line. The building is occupied by various tenants that consist of commercial offices, commercial warehousing, and storage. A U-Haul rental fleet occupies a majority of the western parking lot. This paved parking lot is use by tenants and customers of the occupied units. It is expected that the use of road salt as a deicing agent was identified as PCA resulting in an APEC. Otherwise, no PCAs were identified on the Phase I ESA Property.

Neighbouring land use in the Phase I Study Area consists primarily of industrial commercial with some residential. An active automotive garage is located adjacent to

the Phase I Property located at 111 Breezehill Avenue. This off-site PCA is considered to represent and APEC to the Phase I Property.

## **Recommendations**

### **Phase II – Environmental Site Assessment**

Based on the findings of this assessment, it is our opinion that **a Phase II – Environmental Site Assessment will be required for the Phase I Property.**

### **Designated Substance Survey**

Based on the age of the subject building and its additions (c.1940's – 1960's), asbestos containing building materials, lead-based paints, and other hazardous building materials may be potentially present within the structure. It is recommended that a designated substance survey (DSS) be completed for the subject building prior to any proposed demolition activities.

## 1.0 INTRODUCTION

At the request of Mr. Thomas Freeman, Paterson Group (Paterson) conducted a Phase I – Environmental Site Assessment (Phase I ESA) for 75 Breezehill Avenue, in the City of Ottawa, Ontario, (Phase I Property). The purpose of this Phase I ESA has been to research the past and current use of the Phase I Property, as well as the neighbouring properties within a 250 m study area (Phase I Study Area), to identify any potentially contaminating activities (PCAs) that would result in areas of potential environmental concern (APECs) on the Phase I Property.

Paterson was engaged to conduct this Phase I ESA by Mr. Thomas Freeman, who can be reached by telephone at 613-730-5709.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all of our findings and results of the environmental conditions at this site.

This Phase I ESA report has been prepared under the supervision of a Qualified Person, in general accordance with Ontario Regulation (O. Reg.) 153/04, as amended under the Environmental Protection Act, and the requirements of CSA Z768-01 (reaffirmed 2022). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I ESA are based on a review of readily available geological, historical, and regulatory information, as well as a cursory review made at the time of the field assessment. The historical research relies upon information supplied by others, such as local, provincial, and federal agencies, and was limited within the scope-of-work, time, and budget of the project herein.

## 2.0 PHASE I PROPERTY INFORMATION

|                          |                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Address:                 | 75 Breezehill Avenue, Ottawa, Ontario.                                                                                                                                                               |
| Legal Description:       | Part of Lots 10, 11, 12, 13 and 14 and all of lots D, E and 9, and Loretta Avenue of Registered Plan 73, in the City of Ottawa, Ontario.                                                             |
| Location:                | The Phase I Property is located on the east side of Breezehill Avenue and on the north side of Laurel Avenue, in the City of Ottawa, Ontario. Refer to Figure 1 – Key Plan, appended to this report. |
| PIN:                     | 04107-0004                                                                                                                                                                                           |
| Latitude and Longitude:  | 45° 24' 20" N, 75° 43' 3.3" W                                                                                                                                                                        |
| <b>Site Description:</b> |                                                                                                                                                                                                      |
| Configuration:           | Irregular                                                                                                                                                                                            |
| Area:                    | 6,170.4 m <sup>2</sup> (approximately)                                                                                                                                                               |
| Zoning:                  | IG1 – General Industrial Zone.                                                                                                                                                                       |
| Current Use:             | The Phase I Property is currently occupied by a two-storey mixed-use industrial building, consisting of commercial office space, warehouses, light manufacturing.                                    |
| Services:                | The Phase I Property is located within a municipally serviced area.                                                                                                                                  |

### **3.0 SCOPE OF INVESTIGATION**

The scope of work for this Phase I ESA is described as follows:

- ☐ Determine the historical activities occurring on the Phase I Property and in the Phase I Study Area by conducting a review of readily available records, reports, photographs, plans, mapping information, databases, and regulatory agencies;
- ☐ Investigate the existing conditions present on the Phase I Property and in the Phase I Study Area by conducting site reconnaissance;
- ☐ Conduct interviews with persons knowledgeable of current and historic operations on the Phase I Property and, if warranted, the neighbouring properties;
- ☐ Present the results of our findings in a comprehensive report in general accordance with the requirements O. Reg. 153/04, as amended under the Environmental Protection Act, and in compliance with the requirements of CSA Z768-01 (reaffirmed 2022);
- ☐ Provide a preliminary environmental site evaluation based on our findings;
- ☐ Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

## **4.0 RECORDS REVIEW**

### **4.1 General**

#### **Phase I ESA Study Area Determination**

A radius of approximately 250 m was deemed appropriate for defining the study area for this assignment, herein referred to as the Phase I Study Area. Properties located outside of the Phase I Study Area are not considered to have had the potential to impact the Phase I Property, based on their significant separation distances.

#### **First Developed Use Determination**

Based on a review of available historical information, the Phase I Property was first developed with a two-storey warehouse building prior to 1928.

#### **Fire Insurance Plans**

Fire insurance plans (FIPs), dated from 1912, 1948 and 1957, were reviewed for the general area of the Phase I Property as part of this assessment.

The 1912 FIPs depict the Phase I property as vacant undeveloped land. Adjacent to the east is the Canadian Pacific Railway. To the west, across Breezehill Avenue, a two-storey public school is present. Residential development is also present further to the west.

The 1948 FIPs depict the Phase I property developed with a large two-storey warehouse with an attached wood frame shed/garage. Two tenants occupy the building, one a furniture warehouse and the second a moving company warehouse. The Canadian Nation Railways line is adjacent to the east. Adjacent to the north is a coal supplier, chemical supplier and automotive repair shop. Further to the east is a lumber pile and further to the south is printing facility. Devonshire public school and residential development is present to west.

The 1957 FIPs depict the Phase I property developed with little changes from the previous 1948 FIP. The wood framed shed/garage has been relocated to the center of the parking area. Further to the south is a fuel supplier with an underground storage tank (UST).

The PCAs identified in the Phase I Study Area are summarized below in Table 1:

| <b>Table 1</b><br><b>Fire Insurance Plans</b><br><b>PCAs Identified in Phase I Study Area</b> |                                         |                                  |                                                 |
|-----------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------|-------------------------------------------------|
| Address                                                                                       | Potentially Contaminating Activity      | Distance / Orientation from Site | Area of Potential Environmental Concern (Y / N) |
| <b>1948 FIPs</b>                                                                              |                                         |                                  |                                                 |
| No Municipal Address                                                                          | Railway Line                            | Adjacent to the east             | N                                               |
| 63 Breezehill Ave N                                                                           | Automotive repair shop                  | 38 m North                       | N                                               |
| 73 Breezehill Ave N                                                                           | Bruce Coal Co., Limited                 | Adjacent to the north            | Y                                               |
| 73 Breezehill Ave N                                                                           | Standard Chemical Co., Limited          | Adjacent to the north            | Y                                               |
| 1030 Somerset Street West                                                                     | W.C. Edwards & Co., Limited             | 40m to the northeast             | N                                               |
| 1030 Somerset Street West                                                                     | No. 26 Central Ordnance Depot           | 95 m to the northeast            | N                                               |
| 975 Gladstone Avenue                                                                          | British American Bank Note Co., Limited | 120m to the south                | N                                               |
| <b>1957 FIPs</b>                                                                              |                                         |                                  |                                                 |
| No Municipal Address                                                                          | Railway Line                            | Adjacent to the east             | N                                               |
| 63 Breezehill Ave N                                                                           | Automotive repair shop                  | 38 m North                       | N                                               |
| 73 Breezehill Ave N                                                                           | Bruce Coal Co. Limited                  | Adjacent to the north            | Y                                               |
| 131 Loretta Avenue                                                                            | Hall Fuel Ltd.                          | 70 m south                       | N                                               |
| 1030 Somerset Street West                                                                     | No. 26 Central Ordnance Depot           | 95 m to the northeast            | N                                               |
| 975 Gladstone Avenue                                                                          | British American Bank Note Co., Limited | 120m to the south                | N                                               |

Due to its proximity, the coal supplier (Bruce Coal Co. Limited) and Standard Chemical Co., Limited identified at 73 Breezehill Avenue are considered to represent APECs with respect to the Phase I Property.

Based on their separation distances, as well as their down-gradient or cross-gradient orientations with respect to anticipated groundwater flow to the east, none of the other remaining PCAs identified in the FIP review are considered to pose an environmental concern to the Phase I Property.

## City of Ottawa Street Directories

City of Ottawa street directories were reviewed in approximate ten year intervals between 1900 and 2011 for the general area of the Phase I Property as part of this assessment. The Phase I Property was first listed in 1935 under Slater Brea co. and was subsequently listed until 2011 with various commercial, office and warehousing businesses. No environmental concerns were associated with the records of the Phase I Property with respect to the City of Ottawa street directories.

Adjacent properties within the Phase I study area were listed as private commercial businesses from 1935 to 2011. The commercial businesses identified are indicative of office space, warehousing storage, moving companies, and industrial activities. The PCAs identified in the Phase I Study Area are summarized below in Table 2:

| <b>Table 2</b><br><b>City Directories</b><br><b>PCAs Identified in Phase I Study Area</b> |                                                                        |                                                 |                                                                    |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------|
| <b>Address</b>                                                                            | <b>Potentially Contaminating Activity<br/>(Years Listed)</b>           | <b>Distance /<br/>Orientation<br/>from Site</b> | <b>Area of<br/>Potential<br/>Environmental<br/>Concern (Y / N)</b> |
| <b>Breezehill Avenue</b>                                                                  |                                                                        |                                                 |                                                                    |
| 1 Breezehill Avenue North                                                                 | Slacks (1959)                                                          | 240 m north                                     | N                                                                  |
| 1 Breezehill Avenue North                                                                 | Grant's Body Shop (1974)                                               | 90 m north                                      | N                                                                  |
| 3 Breezehill Avenue North                                                                 | Ruddy Paint Shop auto painting (1959)                                  | 230m north                                      | N                                                                  |
| 45 Breezehill Avenue North                                                                | Canadian Oil Company (1937, 1948)                                      | 25 m north                                      | N                                                                  |
| 47 Breezehill Avenue North                                                                | Takaki Automotive (2009, 1998, 1988)                                   | 140 m to the north                              | N                                                                  |
| 50 Breezehill Avenue North                                                                | Wheelan Motors Ltd.                                                    | 100 m to the north                              | N                                                                  |
| 53 Breezehill Avenue North                                                                | Bruce Fuels / Bruce Coal (1977, 1968, 1959, 1948)                      | Adjacent to the north                           | Y                                                                  |
| 55 Breezehill Avenue North                                                                | Japan Auto Service Inc, Ming Auto Service (2008)                       | 70 m to the north                               | N                                                                  |
| 55 Breezehill Avenue North                                                                | A&T Auto Parts, Breezehill Auto body, Kingsway Automotive (1998, 1988) | 70 m to the north                               | N                                                                  |
| 55 Breezehill Avenue North                                                                | Elmer's Auto Electric (1978)                                           | 70 m to the north                               | N                                                                  |
| 73 Breezehill Avenue                                                                      | Standard Chemical Co. (1948)                                           | Adjacent to the north                           | Y                                                                  |
| 73 Breezehill Avenue                                                                      | Charcoal Supply Co. (1927)                                             | Adjacent to the north                           | Y                                                                  |
| 109 Breezehill Avenue North                                                               | Alaska Steel & Welding (1984, 1974)                                    | Adjacent to the west                            | N                                                                  |

| <b>Table 2 (Continued)</b><br><b>City Directories</b><br><b>PCAs Identified in Phase I Study Area</b> |                                                              |                                                 |                                                                    |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------|
| <b>Address</b>                                                                                        | <b>Potentially Contaminating Activity<br/>(Years Listed)</b> | <b>Distance /<br/>Orientation<br/>from Site</b> | <b>Area of<br/>Potential<br/>Environmental<br/>Concern (Y / N)</b> |
| <b>Gladstone</b>                                                                                      |                                                              |                                                 |                                                                    |
| 951 Gladstone Avenue                                                                                  | Love Printing Service (1971, 1981, 1987)                     | 165 m to the south                              | N                                                                  |
| 975 Gladstone Avenue                                                                                  | British American Bank Note Co.(1951, 1961, 1971, 1981, 2001) | 90 m to the south                               | Y                                                                  |

Due to their close proximities, the coal and chemical supplier identified at 53 and 73 Breezehill Avenue and historical printing activities the British American Bank Note Co. at 975 Gladstone Avenue are considered to represent APECs with respect to the Phase I Property.

Based on its down-gradient orientation with respect to anticipated groundwater flow to the East, the railway line and train station is not considered to pose an environmental concern to the Phase I Property.

### **Plan of Survey**

A survey plan of the Phase I Property completed by Stantec dated May 12, 2021 was provided for review as part of this assessment. The survey plan is attached to the appendix of this report.

## **4.2 Environmental Source Information**

### **National Pollutant Release Inventory**

A search of the National Pollutant Release Inventory (NPRI) database was conducted as part of this assessment. This federally managed database provides various reports and tracking information relating to the release of solid, liquid, or gaseous pollutants from industrial facilities into the natural environment.

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on April 18, 2023. The Phase I property and adjacent properties were not listed in the NPRI database for the years 1993 to 2021, with the exception of the property at 975 Gladstone Avenue, approximately 90 m south of the Phase I property. According to this listing the site has generated hexavalent chromium for off-site disposal from years 2003-2011 and volatile organic

compounds (VOCs) for off-site disposal from years 2003-2004. These records indicate the release of these chemicals was to the air. Based on the review, these releases are not expected to have impacted the Phase I property.

### **Ontario PCB Waste Storage Site Inventory**

The Ontario Ministry of Environment, Conservation and Parks document entitled, "*Ontario Inventory of PCB Storage Sites, April 1995*" was reviewed as part of this assessment. This document identifies all recorded active and closed PCB waste storage sites situated in the Province of Ontario.

No PCB waste storage sites are located within the Phase I study area.

### **MECP Brownfields Environmental Site Registry**

A search of the MECP Brownfields Environmental Site Registry was conducted as part of this assessment. This database contains publicly available information on all Records of Site Condition (RSCs) filed in the Province of Ontario.

A review of the registry did not identify any RSCs in the database as having been filed for the Phase I Property, however, two were identified for an off-site property situated within the Phase I Study Area:

☐ RSC# 236233 – 933 Gladstone Avenue (70 m East of Phase I Property)

According to the RSC, filed in 2022 by Golder Associates Ltd., all soil and groundwater test results complied with the applicable MECP standards and no remedial action was required to be undertaken.

☐ RSC# 226204 – 933 Gladstone Avenue (90 m East of Phase I Property)

According to the RSC, filed in 2019 by Golder Associates Ltd., all soil and groundwater test results complied with the applicable MECP standards with the exception of multiple Vanadium exceedances within the soil. It was determined that the vanadium exceedances were naturally occurring. As a result, no remedial action was required to be undertaken.

### **MECP Incident Reports**

A request was submitted to the MECP Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants, or inspections maintained by the MECP for the Phase I Property or any of the neighbouring properties.

A response from the MECP was received by our firm on March 31, 2023. No records were identified by the MECP.

### **MECP Submissions**

A request was submitted to the MECP Freedom of Information office for information with respect to reports related to environmental conditions for the Phase I Property.

A response from the MECP was received by our firm on March 31, 2023. No records were identified by the MECP.

### **MECP Waste Management Records**

A request was submitted to the MECP Freedom of Information office for information with respect to waste management records for the Phase I Property.

A response from the MECP was received by our firm on March 31, 2023. No records were identified by the MECP.

### **MECP Instruments**

A request was submitted to the MECP Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use, or any other similar MECP issued instruments for the Phase I Property.

A response from the MECP was received by our firm on March 31, 2023. No records were identified by the MECP.

### **MECP Waste Disposal Site Inventory**

The Ontario Ministry of Environment, Conservation and Parks document entitled, "*Waste Disposal Site Inventory in Ontario, 1991*" was reviewed as part of this assessment. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants, and coal tar distillation plants situated in the Province of Ontario.

A review of this document did not identify any active waste disposal sites situated on the Phase I Property or within the Phase I Study Area. One (1) closed landfill site (Baywater Avenue and Wellington Street) located approximately 225m northwest of the Phase I Property. Based on the separation distance, this former landfill site is not considered to have impacted the Phase I Property.

### **MECP Coal Gasification Plant Inventory**

The Ontario Ministry of Environment, Conservation and Parks document entitled, "*Municipal Coal Gasification Plant Site Inventory, 1991*" was reviewed as part of this assessment. This document provides a reference to the locations of former plants with respect to the Phase I Property.

A review of this document did not identify any former coal gasification plants located on the Phase I Property or within the Phase I Study Area.

### **OMNRF Areas of Natural and Scientific Interest (ANSI)**

A search for ANSI sites situated within the Phase I Study Area was conducted electronically via the Ontario Ministry of Natural Resources and Forestry (OMNRF) website as part of this assessment.

A review of the available mapping information did not identify any ANSI sites situated on the Phase I Property or within the Phase I Study Area.

### **Technical Standards and Safety Authority (TSSA)**

The TSSA Fuels Safety Branch in Toronto was contacted electronically on April 21, 2023, as part of this assessment, to inquire about current and former fuel storage tanks, spills, and historical incidents for the Phase I Property as well as the neighbouring properties within the Phase I Study Area.

The response from the TSSA indicated that no records were identified associated with the Phase I Property.

A copy of the correspondence with the TSSA is included in Appendix 2.

### **City of Ottawa Former Industrial Sites**

The document prepared by Intera Technologies Limited entitled, “*Mapping and Assessment of Former Industrial Sites, City of Ottawa*”, was reviewed as part of this assessment. This document identifies the details and locations of all former industrial sites situated in the City of Ottawa.

A review of this document identified one former industrial site situated within the Phase I Study Area, which is summarized as follows:

- ❑ Site #61 – Somerset Street West and Breezehill Avenue North, Ottawa, Ontario (120 m North of Phase I Property)

According to the document, this site was under the occupation of “Canadian Oil Co.; Limited”, a non-industrial site for bulk storage of oil and gas. Based on its separation distance and cross gradient location from the Phase I Property, this site does not represent an environmental concern to the Phase I Property.

### **City of Ottawa Historical Land Use Inventory (HLUI) Database**

As part of this assessment, a requisition form was submitted to the City of Ottawa to request information from the City’s Historical Land Use Inventory (HLUI) database for any environmental records pertaining to the Phase I Property as well as any properties situated within the Phase I Study Area.

A response from the City of Ottawa was received by our firm dated April 17, 2023. The received document identified a total two-hundred and fourteen (214) records of various industrial, light industrial and commercial activities within the Phase I Study area. A review of these activities concluded that a large majority consisted of light industrial and commercial activities were situated 130 m down gradient of the Phase I Property and are not considered to pose a risk to the Phase I Property. A total of one (1) on-site location and fifteen (15) off-site locations within 250 m of the Phase I Property were identified to be potentially contaminating activity. These activities are listed in Table 3 below. The distances/orientations with respect to the Phase I Property listed in Table 3 are based on depicted locations in the overview map provided by the City.

A copy of the City’s response has been included in Appendix 2.

| <b>Table 3<br/>HLUI Identified Activities</b> |                                                                                                                                                                                                    |                                         |                                                |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------|
| <b>Address</b>                                | <b>Name / Activity</b>                                                                                                                                                                             | <b>Distance / Orientation from site</b> | <b>Potential Environmental Concern (Y / N)</b> |
| 35 Laurel                                     | Slater Bread Co – Gasoline (fuel storage tank)                                                                                                                                                     | On-Site                                 | Y                                              |
| 53 Breezehill Avenue                          | Joseph Barrie, Bruce Coal Co, Bruce Fuels Ltd. / Lumber yard, underground storage tank - Gasoline and fuel oil                                                                                     | Adjacent to the north                   | Y                                              |
| 55 Breezehill Avenue                          | Various automotive businesses / Motor vehicle repair shops                                                                                                                                         | 37 m<br>To the north                    | Y                                              |
| 73 Breezehill                                 | Charcoal Supply Co./ Petroleum products                                                                                                                                                            | Adjacent to the north                   | Y                                              |
| 100 Breezehill Avenue                         | Devonshire Public School / Underground storage tank – Fuel oil                                                                                                                                     | 52 m<br>To the west                     | N                                              |
| 111 Breezehill Avenue                         | 907462 Ontario Ltd, Grandtech Auto / Motor vehicle repair shops                                                                                                                                    | Adjacent to the west                    | Y                                              |
| 933 Gladstone Avenue                          | Multiple federal and commercial businesses / Commercial printing and manufacturing                                                                                                                 | 70 m<br>To the east                     | N                                              |
| 951 Gladstone Avenue                          | Various commercial and light industrial businesses / Gasoline, diesel and fuel oil storage tanks, manufacturing, commercial printing industries, chemical products and textiles product industries | 150 m<br>To the south                   | N                                              |
| 971 Gladstone Avenue                          | Mr. Gas Limited / Retail fuel outlet – gasoline                                                                                                                                                    | 200 m<br>To the south                   | N                                              |
| 975 Gladstone Avenue                          | British American Bank Note / Linseed oil, varsol, fuel oil storage tanks and commercial printing industries                                                                                        | 81 m<br>To the south                    | Y                                              |
| Laurel and Loretta                            | Hall Fuel Co. / Fuel supply                                                                                                                                                                        | 50 m to the south                       | N                                              |

| <b>Table 3 (Continued)</b><br><b>HLUI Identified Activities</b> |                                                                                          |                                         |                                                |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------|
| <b>Address</b>                                                  | <b>Name / Activity</b>                                                                   | <b>Distance / Orientation from site</b> | <b>Potential Environmental Concern (Y / N)</b> |
| 131 Loretta                                                     | Hall Fuel – Mccoll Frontenac Oil Co. / Underground storage tank - fuel oil               | 50 m to the south                       | N                                              |
| 145 Loretta                                                     | Bell Telephone Co. of Canada, Hall Fuel / Garage and underground storage tank - fuel oil | 80 m<br>To the south                    | N                                              |
| 1040 Somerset Street                                            | Various automotive businesses / Motor vehicles repair shops                              | 75 m<br>To the north                    | N                                              |
| 1050 Somerset Street                                            | Various automotive businesses / Underground storage tank and motor vehicles repair shops | 80 m<br>To the north west               | N                                              |
| 1066 Somerset Street West                                       | L. J. Corkery - Globe Oil Co / Gasoline storage tank                                     | 130 m<br>To the north west              | N                                              |

The former fuel storage located at 35 Laurel Street was associated with Slater Bread Co. This business was also identified in the 1935 City of Ottawa Directories, addressed 75 Breezehill Avenue. Based on a review of the HLUI records in conjunction with the City of Ottawa Directories, this former fuel storage was located on-site and is considered to represent an APEC with respect to the Phase I Property.

Due to its close proximity and the nature of the activity, the automotive garage located at 111 Breezehill Avenue is considered to represent an APEC with respect to the Phase I Property.

Due to its close proximity and the nature of the activity, the various automotive businesses/motor vehicle repair shops located at 55 Breezehill Avenue is considered to represent an APEC with respect to the Phase I Property

As previously noted in reviewed records identified in this investigation, the coal and chemical supplier identified at 53 and 73 Breezehill Avenue and historical printing activities the British American Bank Note Co. at 975 Gladstone Avenue are considered to represent APECs with respect to the Phase I Property.

## **City of Ottawa Old Landfill Sites**

The document prepared by Golder Associates entitled, “*Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa*”, was reviewed as part of this assessment. This document identifies the details and locations of all recorded active and closed landfill sites situated in the City of Ottawa.

One (1) former landfill site was identified within 500 m of the Phase I Property. Site id UR-41 was a privately operated landfill with an approximated operation date prior to 1928. This landfill site is located approximately 200 m northwest of the Phase I Property. Based on the separation distance, this landfill site is not considered to have had the potential to impact to the Phase I Property.

## **ERIS Database Report**

A database report, prepared by ERIS (Environmental Risk Information Services Ltd.), dated March 17, 2023, was acquired and reviewed as part of this assessment. This report provides a compilation of various provincial and federal environmental related records pertaining to any properties situated within the Phase I Study Area.

The complete ERIS report has been included in Appendix 2.

### **❑ On-Site Records:**

The ERIS report identified ten (10) records associated with current and past activities on the Phase I Property. Five (5) waste generator records and five (5) manufacturing records were identified. A review of these records did not identify any waste products or manufacturing activities that are considered to have impacted the Phase I Property.

### **❑ Off-Site Records:**

The ERIS report identified three-hundred and fifteen (315) records associated with the properties situated within the Phase I Study Area.

A large majority of the records identified in the report are composed of waste generator and manufacturing records from light industrial, manufacturing and commercial activities. A review of these records determined that the waste generators that pose a risk to the Phase I Property have already been identified from other previous historical record searches completed in this report. All other identified waste generator and manufacturing records are not considered to have

impacted the Phase I Property based on separation distance and down/cross gradient locations.

One (1) spill record of transformer oil was identified at 99 Breezehill Avenue. A total of five (5) litres of transformer oil were discharged to the soil and grass and were noted to be cleaned up following the equipment failure. Based on the limited quantity and clean up of the transformer oil, this record is not considered to have impacted the Phase I Property.

Various remaining records were also noted to be associated with activities identified in previous historical record searches completed in this report. Based on the nature of the activity, the significant separation distance, and/or the down-gradient or cross-gradient orientation with respect to anticipated groundwater flow to the northeast, the remaining off-site records are not considered to pose an environmental concern to the Phase I Property.

### **Previous Engineering Reports**

No historical reports associated with the Phase I Property were available for review. Paterson has utilized in house assessments completed within the study area to reaffirm our findings of historical records and any potentially contaminating activities.

## **4.3 Physical Setting Sources**

Historical aerial photographs of the Phase I Study Area were obtained from the National Air Photo Library and reviewed in approximate ten year intervals, beginning with the earliest available photograph.

Based on a review of these photographs, the following observations have been made:

1928      The Phase I Property, appears to be used as a storage yard and is occupied by a small commercial structure in the northeast corner of the property. The property to the north is occupied by a several commercial/industrial structures and the yard appears to be used for storage. The property to the south appears to be used as a storage yard. Property to the west is occupied by the Devonshire public school and to a railway line and spur line are present to the east.

- 1946 The Phase I Property appears to have been developed with an addition to the on-site commercial structure that extends further to the south from the original footprint. The property to the south appears to have been developed with a large industrial building and parking lot in addition to smaller industrial/commercial buildings. A large warehouse structure has been constructed to the east just beyond the railway line.
- 1958 No significant changes are apparent with respect to the Phase I Property. The adjacent properties to the west have been developed with residential structures.
- 1971 The Phase I Property appears to have been further developed with a second addition to the on-site commercial structure extending to the southern property line at Laurel Street. The industrial building to the south has been developed with an addition and larger parking lot.
- 1995 No significant changes are apparent with respect to the Phase I Property. The north adjacent property has been redeveloped with a commercial warehouse building. Some of the west adjacent residential properties have been redeveloped into commercial structures.
- 2007 No significant changes are apparent with respect to the Phase I Property or the surrounding lands since the time of the previous photograph.
- 2015 No significant changes are apparent with respect to the Phase I Property since the time of the previous photograph. The large warehouse structure to the east beyond the railway line has been demolished.
- 2021 No significant changes are apparent with respect to the Phase I Property since the time of the previous photograph. The railway line to the east has been removed and is under redevelopment of a new light rail line.

Copies of the aerial photographs selected for review are included in Appendix 1.

## **Water Bodies**

No water bodies are present on the Phase I Property.

The nearest named water body with respect to the Phase I Property is the Ottawa River, located approximately 750 m to the North.

## **Geological Maps**

Geological mapping information for the Phase I Property was obtained from The Geological Survey of Canada – Urban Geology of the National Capital Area and reviewed as part of this assessment.

Based on the available mapping information, the bedrock beneath the Phase I Property generally consists of interbedded limestone and shale of the Verulam Formation, while the surficial geology consists largely of Paleozoic rocks with an overburden ranging in thickness from approximately 2 m to 3 m.

## **Topographic Maps**

A topographic map of the Phase I Property was obtained from the Natural Resources Canada – The Atlas of Canada website and reviewed as part of this assessment.

The topographic map indicates that the general elevation of the Phase I Property is approximately 70 m above sea level, while the regional topography within the greater area is depicted as sloping downwards to the north, in the general direction of the Ottawa River.

An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

## **Physiographic Maps**

A physiographic map was obtained from the Natural Resources Canada – The Atlas of Canada website and reviewed as a part of this assessment.

According to the publication and available mapping information, the Phase I Property is situated within the St. Lawrence Lowlands. According to the description provided: *“...the lowlands are plain-like areas that were affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets.”* The Phase I Property is specifically located within the Central St. Lawrence Lowland area, which is rarely more than 150 m above sea level.

### **MECP Water Well Records**

A search of the MECPs website for all drilled well records within a 250 m radius of the Phase I Property was conducted as part of this assessment. The search identified fifty-nine (59) well records within the Phase I Study Area. These records pertain to wells installed between 2005 and 2021 and used for groundwater monitoring purposes. Based on the availability of municipal services, no drinking water wells are expected to be in use within the Phase I Study Area.

According to the well records, the overburden stratigraphy in the vicinity of the Phase I Property generally consists of fill material over silty clay. Bedrock was generally encountered at depths ranging from approximately 6 m below ground surface.

The identified well records have been included in Appendix 2.

## **5.0 INTERVIEWS**

### **Property Owner Representative**

Mr. Vince Della Penna, a representative of the property owner, was available at the time of the site inspection to respond to questioning about the environmental history of the Phase I Property.

According to Mr. Della Penna, the Phase I Property was purchased in approximately 1985. The property was previously and has continued to be used for commercial warehousing, commercial office space, storage, and light manufacturing purposes. Mr. Della Penna did not know the original date of construction of the building.

Since purchasing the property in approximately 1985, Mr. Della Penna stated that the subject building was heated via a natural gas fired system that was recently upgraded to a newer natural gas fired system in 2020. Mr. Della Penna was unaware of any environmental concerns pertaining to the current use of the Phase I Property. No previous environmental investigations or reports have been completed on the Phase I Property.

## **6.0 SITE RECONNAISSANCE**

### **6.1 General Requirements**

A site inspection was conducted for the Phase I Property on March 23, 2023, between 9:00 AM and 11:00 AM. Weather conditions were cloudy with rain, and a temperature of approximately -1°C. Mr. Mark St Pierre, from the Environmental Department of Paterson Group, conducted the inspection.

In addition to the Phase I Property, the uses of neighbouring properties within the Phase I Study Area were also assessed from publicly accessible locations at the time of the site inspection.

### **6.2 Specific Observations at the Phase I Property**

#### **Site Description**

The Phase I Property is currently occupied with a two-storey mixed-use building, located in the eastern portion of the property, backing to the former railway line. A single sea can shipping container was located on the parking areas fronting Laurel Street. A large portion of the western parking lot is used for storage of a U-Haul rental vehicle fleet. The subject building consists of eight tenant spaces, while only one of them was vacant at the time of this assessment. The tenants consist of a mix of commercial retail, warehousing and storage.

The site topography is relatively flat, while the regional topography appears to slope down towards the north, in the general direction of the Rideau River. A railway line to the east of the property is situated at a deep depression within the regional area. The Phase I Property is considered to be at grade with respect to the adjacent streets and the neighbouring properties with the exception of the eastern railway line.

Water drainage on the Phase I Property occurs primarily via surface runoff towards catch basins located on the Phase I Property and neighbouring street. No ponded water, stressed vegetation, surficial staining, or any other indications of potential sub-surface contamination were observed on the Phase I Property at time of the site inspection.

A depiction of the Phase I Property is illustrated on Drawing PE6049-1 – Site Plan, in the Figures section of this report.

## **Buildings and Structures**

At the time of the site inspection, the Phase I Property was occupied with a two-storey mixed-use building. The original building was built prior to 1928 with a single basement level mechanical room and has received two additions to the south of the original building. The subject building is constructed with a poured concrete foundation, and is finished on the exterior with stucco siding, in addition to a flat tar and gravel roof. The subject building is currently heated via natural gas-fired equipment, within each tenant unit.

## **Potential Environmental Concerns**

### **☐ Fuels and Chemical Storage**

At the time of the site inspection, no chemical storage areas, vent and fill pipes, above ground fuel storage tanks (ASTs), or evidence indicating the presence of any underground fuel storage tanks (USTs) were observed on the Phase I Property.

### **☐ Hazardous Materials and Unidentified Substances**

At the time of the site inspection, no hazardous materials, unidentified substances, spills, surficial staining, abnormal odours, stressed vegetation, or any other indications of potential sub-surface contamination were observed on the Phase I Property.

### **☐ Polychlorinated Biphenyls (PCBs) and Transformer Oil**

At the time of the site inspection, only dry-cell electrical transformers were identified on the Phase I Property. With the exception of fluorescent light ballasts that were observed throughout the building no other potential sources of PCBs or transformer oil were identified on the Phase I Property.

### **☐ Waste Management**

At the time of the site inspection, solid, non-hazardous domestic waste and recyclable products were observed to be stored in plastic and metals bins on the south east side of the subject building. No environmental concerns were noted with respect to waste management practices on the Phase I Property.

## **Interior Assessment**

A general description of the interior of the subject building is as follows:

- ☐ The floors consist of poured concrete and vinyl floor tiles;
- ☐ The walls consist of drywall and concrete block walls;
- ☐ The ceilings consist of drywall and open steel joist framing;
- ☐ Lighting throughout the building is provided by incandescent, and fluorescent light fixtures.

## **Potentially Hazardous Building Products**

### ☐ **Asbestos-Containing Materials (ACMs)**

Based on the age of the subject building, asbestos containing building materials may be potentially present within the structure. Potential ACMs observed inside the subject building include the drywall joint compound, pipe fitting and pipe run insulation, and the vinyl floor tiles.

These potential ACMs were observed to be in good condition at the time of the site inspection and do not represent an immediate concern to the building's occupants.

### ☐ **Lead-Based Paints**

Based on the age of the subject building, lead-based paints may be present inside the structure, on any original or older painted surfaces. Painted surfaces were generally observed to be in good condition at the time of the site inspection and do not represent an immediate concern to the occupants.

### ☐ **Polychlorinated Biphenyls (PCBs) and Transformer Oil**

At the time of the site inspection, no potential sources of PCBs were identified inside the subject building.

### ☐ **Urea Formaldehyde Foam Insulation (UFFI)**

At the time of the site inspection, UFFI was not observed inside the subject building, however, wall cavities were not exposed to allow for the inspection of insulation type.

## **Other Potential Environmental Concerns**

### **☐ Interior Fuel and Chemical Storage**

At the time of the site inspection, no aboveground fuel storage tanks or signs of underground fuel storage tanks were observed within the subject building.

Chemical products identified in the subject building were observed to be predominantly limited to domestically available cleaning products, stored properly in their original containers.

### **☐ Ozone Depleting Substances (ODSs)**

Potential sources of ODSs observed on-site include fire extinguishers, air conditioners, freezers and refrigerators. These appliances appeared to be in good condition at the time of the site inspection and should be regularly serviced by a licensed contractor.

### **☐ Wastewater Discharges**

Wastewater from the subject building (wash water and sewage) is discharged into the City of Ottawa sanitary sewer system, and stormwater runoff is discharged via catch basins located in the parking lot areas and the adjacent streets, which drain into the City of Ottawa storm water sewer system.

A floor drain was observed on the floor slabs of all subject building, in which no water was observed at the time of the site inspection.

A sump pump and pit were observed in the basement of the original building structure. Water present in the sump pit was noted to be clear with no olfactory observations.

No potential environmental concerns were identified with respect to the wastewater discharges of the Phase I Property.

## **Neighbouring Properties**

At the time of the site inspection, a survey of the neighbouring properties was conducted from publicly accessible roadways.

Land use adjacent to the Phase I Property was observed as follows:

- North:* A commercial structure with parking lot, followed by an automotive service garage.
- South:* Laurel Street, followed by the Canadian Bank Noted limited printing facility.
- East:* The O-Train LRT line (under construction), followed by a vacant parking lot and grass land area.
- West:* Residential, commercial, and an automotive garage followed by Breezehill Avenue.

As previously noted in reviewed records identified in this investigation, the automotive garage located at 111 Breezehill Avenue is considered to represent APECs with respect to the Phase I Property.

The neighbouring land use within the Phase I Study Area is depicted on Drawing PE6049-2 – Surrounding Land Use Plan, in the Figures section of this report.

## 7.0 REVIEW AND EVALUATION OF INFORMATION

### 7.1 Land Use History

Based on a review of available historical information, the land use history of the Phase I Property is summarized below in Table 4.

| <b>Table 4<br/>Land Use History – 75 Breezehill Avenue, Ottawa, Ontario</b> |                 |                                                                                               |                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Time Period</b>                                                          | <b>Land Use</b> | <b>Description</b>                                                                            | <b>Other Observations from Aerial Photos, FIPs, etc</b>                                                                                                                                                         |
| Prior to 1928                                                               | Unknown         | Vacant                                                                                        | 1912 FIP depict the Phase I Property as vacant.                                                                                                                                                                 |
| 1928 – Present                                                              | Commercial      | Slater Bread Co., Sparks and Son Warehouse, Breezehill heating, Capital self storage & Uhaul, | 1928 aerial photograph depicts the first development on the Phase I Property. FIPs and city directories indicated the presence of various commercial businesses, retail business, warehousing and office space. |

#### **Potentially Contaminating Activities (PCAs) and Areas of Potential Environmental Concern**

Based on the findings of the Phase I ESA, six potentially contaminating activities (PCAs), resulting in areas of potential environmental concern (APECs), were identified on the Phase I Property.

As per Table 2 – Column A of O. Reg. 153/04, as amended, the PCAs resulting in APECs on the Phase I Property are described as follows:

- ☐ PCA 28: Gasoline and associated products storage in fixed tanks, associated with a former fuel storage located on the original two-storey commercial building located at the northeast corner of the Phase I Property. (APEC #1).
- ☐ PCA Other: “Use of Road Salt for Deicing,” across the Phase I ESA Property (APEC #2)
- ☐ PCA 30: Importation of Fill Material of Unknown Quality; associated with the possible presence of poor quality fill material located associated with the multiple additions and regrading of the parking lot located in the western portion of the Phase I Property. (APEC #3)

- ☐ Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems; associated with the presence of an existing off-site auto service garage at 111 Breezehill Avenue L, located adjacent to the west of the Phase I Property. (APEC #4)
- ☐ Item 31: Ink manufacturing, processing and bulk storage; associated with the presence of the Canadian Bank Note Limited (formerly British American Bank Note Co.), located 80 m to the south of the Phase I Property. (APEC #5)
- ☐ Item N/A: Former fuel/coal company located north of the Phase I Property. Transfer and storage of coal fuel, possible leakage of storage tanks/containers and discharge of coal petroleum hydrocarbons (APEC#6).
- ☐ Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems; associated with various automotive businesses/motor vehicle repair shops located at 55 Breezehill Avenue. (APEC#7)

Although not identified as a specific PCA in Table 2, the application of deicing salts for vehicular and pedestrian safety is also considered to represent an APEC (APEC #2) on the Phase I ESA Property. Based on the findings of the Phase I ESA, it is considered likely that road salt was applied to the surface of the walkways, paved access lane and parking lot across the Phase I ESA Property for the safety of vehicular and pedestrian traffic under conditions of ice and/or snow.

According to Section 49.1 of O.Reg. 153/04, if an applicable site condition standard is exceeded at a property solely because of the following reason, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act: "The qualified person has determined, based on a phase one environmental site assessment or a phase two environmental site assessment, that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both."

In accordance with Section 49.1 of O.Reg. 153/04, any EC and SAR concentrations on the Phase I ESA Property that may exceed the MECP Table 3 standards for a residential/institutional land use are deemed not to be exceeded for the purpose of Part XV.1 of the Act.

The APECs are shown on Drawing PE6049-1 – Site Plan, while the corresponding PCAs are shown in red on Drawing PE6049-2 – Surrounding Land Use Plan.

The remaining off-site PCAs identified within the Phase I Study Area were not considered to result in APECs based on their separation distances and/or orientations (down or cross-gradient) with respect to the Phase I ESA Property. These PCAs are identified in green on Drawing PE6049-2– Surrounding Land Use Plan.

### **Contaminants of Potential Concern (CPCs)**

The contaminants of potential concern (CPCs) associated with the aforementioned APECs are considered to be:

- ☐ Benzene, Ethylbenzene, Toluene, and Xylenes (BTEX);
- ☐ Volatile Organic Compounds (VOCs);
- ☐ Petroleum Hydrocarbons, fractions 1 – 4 (PHCs F<sub>1</sub>-F<sub>4</sub>);
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs);
- ☐ Mercury (Hg<sup>+</sup>)
- ☐ Hexavalent Chromium (Cr<sup>VI</sup>)

These CPCs have the potential to be present in the soil matrix and/or the groundwater situated beneath the Phase I Property.

## **7.2 Conceptual Site Model**

### **Geological and Hydrogeological Setting**

Based on the available mapping information, the bedrock beneath the Phase I Property generally consists of interbedded limestone and shale of the Verulam Formation, while the surficial geology consists largely of paleozoic rocks with an overburden ranging in thickness from approximately 2 m to 3 m.

Groundwater is anticipated to be encountered within the overburden and flow in a north easterly direction towards the Rideau River.

## **Water Bodies and Areas of Natural and Scientific Interest**

No water bodies or areas of natural and scientific interest were identified within the Phase I Study Area. The nearest named water body with respect to the Phase I Property is the Ottawa River, located approximately 750m to the north.

## **Drinking Water Wells**

Based on the availability of municipal services, no drinking water wells are expected to be present within the Phase I Study Area.

## **Existing Buildings and Structures**

The Phase I Property is currently occupied with a two-storey commercial warehouse building, that is composed of two additions to the original building. A single basement level is present in the footprint of the original building to the north.

## **Current and Future Property Use**

The Phase I Property is currently being used for commercial office space, commercial warehousing purposes and storage.

It is our understanding that the Phase I Property is to be redeveloped with two multi-storey residential apartment buildings.

## **Neighbouring Land Use**

The surrounding lands within the Phase I Study Area consist largely of commercial and industrial properties, with the exception of some residential land to the east, across Breezehill Avenue.

Current land use is depicted on Drawing PE6049-2 – Surrounding Land Use Plan, in the Figures section of this report.

## **Potentially Contaminating Activities and Areas of Potential Environmental Concern**

As per Section 7.1 of the Phase I ESA report, five potentially contaminating activities (PCAs), resulting in areas of potential environmental concern (APECs), are summarized in Table 5, along with their respective locations and contaminants of potential concern (CPCs):

| <b>Table 5<br/>Areas of Potential Environmental Concern</b>                      |                                                              |                                                                                                                                                                                                                   |                                              |                                                                                        |                                                                        |
|----------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Area of Potential Environmental Concern</b>                                   | <b>Location of APEC on Phase I Property</b>                  | <b>Potentially Contaminating Activity (Table 2 – O. Reg. 153/04)</b>                                                                                                                                              | <b>Location of PCA (On-Site or Off-Site)</b> | <b>Contaminants of Potential Concern</b>                                               | <b>Media Potentially Impacted (Groundwater, Soil, and/or Sediment)</b> |
| <b>APEC #1</b><br><br>Former Fuel Storage Tank                                   | Northeastern portion/original two-storey commercial building | <i>"Gasoline and Associated Products Storage and Fixed Tanks"</i>                                                                                                                                                 | On-Site                                      | VOCs<br>BTEX<br>PHCs(F <sub>1</sub> -F <sub>4</sub> )                                  | Soil and Groundwater                                                   |
| <b>APEC #2</b><br><br>Possible Use of Road Salt for De-Icing Purposes            | Parking lot                                                  | <i>"Item N/A: Use of de-icing salt for safety purposes during snow and ice conditions"</i>                                                                                                                        | On-Site                                      | EC<br>SAR                                                                              | Soil                                                                   |
| <b>APEC #3</b><br><br>Fill Material of Unknown Quality                           | Parking lot                                                  | <i>"Item 30: Importation of Fill Material of Unknown Quality"</i>                                                                                                                                                 | On-Site                                      | PAHs<br>Metals                                                                         | Soil                                                                   |
| <b>APEC #4</b><br><br>Existing Automotive Garage                                 | Western portion of parking lot area of Phase I Property      | <i>"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"</i>                                                                          | Off-Site                                     | VOCs<br>BTEX<br>PHCs (F <sub>1</sub> -F <sub>4</sub> )                                 | Soil and Groundwater                                                   |
| <b>APEC #5</b><br><br>Existing printing facility                                 | Southern portion of Phase I Property                         | <i>"Item 31: Ink Manufacturing Processing and Bulk Storage"</i>                                                                                                                                                   | Off-Site                                     | VOCs                                                                                   | Groundwater                                                            |
| <b>APEC #6</b><br><br>Former Coal Fuel Storage and Supplier                      | Northern portion of Phase I Property                         | <i>"Item Other: Former fuel/coal company located north of the Phase I Property. Transfer and storage of coal fuel, possible leakage of storage tanks/containers and discharge of coal petroleum hydrocarbons"</i> | Off-Site                                     | VOCs<br>BTEX<br>PHCs (F <sub>1</sub> -F <sub>4</sub> )<br>PAHs<br>Metals<br>Hg<br>CrVI | Soil and Groundwater                                                   |
| <b>APEC #7</b><br><br>Various automotive businesses / motor vehicle repair shops | Northern portion of Phase I Property                         | <i>"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"</i>                                                                          | Off-Site                                     | VOCs<br>BTEX<br>PHCs (F <sub>1</sub> -F <sub>4</sub> )                                 | Soil and Groundwater                                                   |

Based on the findings of this assessment, it is understood a substance has been applied to surfaces of the Phase I ESA Property for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both.

In accordance with Section 49.1 of O.Reg. 153/04, any EC and SAR concentrations on the RSC Property that exceed the MECP Table 3 standards for a residential/institutional land use are deemed not to be exceeded for the purpose of Part XV.1 of the Act. This exemption is being relied on for APEC 1.

Other off-site PCAs were identified within the Phase I Study Area but were deemed not to be of any environmental concern to the Phase I Property based on their separation distances as well as their inferred down-gradient or cross-gradient orientation with respect to anticipated groundwater flow to the west.

### **Contaminants of Potential Concern**

The contaminants of potential concern (CPCs) associated with the aforementioned APECs are considered to be:

- ☐ Benzene, Ethylbenzene, Toluene, and Xylenes (BTEX);
- ☐ Volatile Organic Compounds (VOCs);
- ☐ Petroleum Hydrocarbons, fractions 1 – 4 (PHCs F<sub>1</sub>-F<sub>4</sub>);
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs);
- ☐ Mercury (Hg<sup>+</sup>)
- ☐ Hexavalent Chromium (Cr<sup>VI</sup>)

These CPCs have the potential to be present in the soil matrix and/or the groundwater situated beneath the Phase I Property.

### **Assessment of Uncertainty and/or Absence of Information**

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are PCAs and APECs associated with the Phase I Property.

The presence of any PCAs was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

## **8.0 CONCLUSIONS**

### **8.1 Assessment**

Paterson Group was retained by Mr. Thomas Freeman to conduct a Phase I – Environmental Site Assessment (Phase I ESA) for 75 Breezehill Avenue, Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site (Phase I Property) and 250 m study area (Phase I Study Area) and to identify any environmental concerns with the potential to have impacted the Phase I property.

According to the historical research, the Phase I Property was utilized for commercial purposes as early as 1928 with a single commercial structure. Historical records indicated a commercial business in the 1930's utilized onsite gasoline storage of an unknown quantity. The commercial structure had undergone construction of two additions in approximately the 1940's and 1960's, respectively. The Phase I Property continues to be used for commercial purposes at this present time. Based on the construction of these additions in addition to the construction of the parking lot, fill material of unknown quality is expected to be present on the western portion of the Phase I Property. These potentially contaminating activity (PCA) are considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

The historical use of the surrounding properties within the Phase I Study Area were developed for industrial, commercial, and residential purposes. Several historical off-site potentially contaminating activities (PCAs) were identified within the Phase I Study Area. Historical records identified the presence of a former coal fuel/lumber storage yard and various automotive businesses/motor vehicle repair shops adjacent to the north of the Phase I Property and a printing facility to the south of the Phase I Property at 975 Gladstone Avenue. Based on orientation and/or separation distances, all other off-site PCAs are not considered to represent APECs on the Phase I ESA Property.

Presently, the Phase I Property is occupied with a two-storey mixed-use building, located in the eastern portion of the site, adjacent to the former railway line. The building is occupied by various tenants that consist of commercial offices, commercial warehousing, and storage. A U-Haul rental fleet occupies a majority of the western parking lot. This paved parking lot is use by tenants and customers of the occupied units. It is expected that the use of road salt as a

deicing agent was identified as PCA resulting in an APEC. Otherwise, no PCAs were identified on the Phase I ESA Property.

Neighbouring land use in the Phase I Study Area consists primarily of industrial commercial with some residential. An active automotive garage is located adjacent to the Phase I Property located at 111 Breezehill Avenue. This off-site PCA is considered to represent an APEC to the Phase I Property.

## **8.2 Recommendations**

### **Phase II – Environmental Site Assessment**

Based on the findings of this assessment, it is our opinion that **a Phase II – Environmental Site Assessment will be required for the Phase I Property.**

### **Designated Substance Survey**

Based on the age of the subject building (c.1950's), asbestos containing building materials, lead-based paints, and other hazardous building materials may be potentially present within the structure. It is recommended that a designated substance survey (DSS) be completed for the subject building prior to any proposed demolition activities.

## 9.0 STATEMENT OF LIMITATIONS

This Phase I – Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, and meets the requirements of CSA Z768-01 (reaffirmed 2016). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I ESA are based on a review of readily available geological, historical, and regulatory information as well as a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as local, provincial, and federal agencies and was limited within the scope-of-work, time, and budget of the project herein.

Should any conditions be encountered at the Phase I Property and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of 2729685 Ontario Inc. c/o Fotenn. Permission and notification from 2729685 Ontario Inc. c/o Fotenn and Paterson Group will be required prior to the release of this report to any other party.

**Paterson Group Inc.**



Mark St Pierre, P.Eng.



Michael Beaudoin, P.Eng., QP<sub>ESA</sub>



### Report Distribution:

- ☐ 2729685 Ontario Inc. c/o Fotenn
- ☐ Paterson Group Inc.

## 10.0 REFERENCES

### Federal Records

- ☐ Natural Resources Canada: Air Photo Library.
- ☐ Natural Resources Canada: The Atlas of Canada.
- ☐ Geological Survey of Canada: Surficial and Subsurface Mapping.
- ☐ Environment Canada: National Pollutant Release Inventory.
- ☐ National Archives of Canada.

### Provincial Records

- ☐ MECP: Freedom of Information and Privacy Office.
- ☐ MECP: Municipal Coal Gasification Plant Site Inventory, 1991.
- ☐ MECP: Waste Disposal Site Inventory, 1991.
- ☐ MECP: Brownfields Environmental Site Registry.
- ☐ MECP: Water Well Inventory.
- ☐ MECP: Ontario PCB Waste Storage Site Inventory, 1995.
- ☐ Office of Technical Standards and Safety Authority, Fuels Safety Branch.
- ☐ Ministry of Natural Resources and Forestry Areas of Natural Significance.
- ☐ Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

### Municipal Records

- ☐ City of Ottawa: GeoOttawa
- ☐ City of Ottawa: Historical Land Use Inventory Database
- ☐ City of Ottawa: document entitled, "Old Landfill Management Strategy, Phase I – Identification of Sites", prepared by Golder Associates, 2004.

### Local Information Sources

- ☐ Personal Interviews.
- ☐ Previous Engineering Reports.

### Public Information Sources

- ☐ ERIS Database Report.
- ☐ Google Earth.
- ☐ Google Maps/Street View.

# **FIGURES**

**FIGURE 1 – KEY PLAN**

**FIGURE 2 – TOPOGRAPHIC MAP**

**DRAWING PE6049-1 – SITE PLAN**

**DRAWING PE6049-2 – SURROUNDING LAND USE PLAN**

# **APPENDIX 1**

**AERIAL PHOTOGRAPHS**

**SITE PHOTOGRAPHS**

# **APPENDIX 2**

**MECP FREEDOM OF INFORMATION RESPONSE**

**MECP WATER WELL RECORDS**

**TSSA CORRESPONDENCE**

**CITY OF OTTAWA HLUI RESPONSE**

**ERIS DATABASE REPORT**

# **APPENDIX 3**

## **QUALIFICATIONS OF ASSESSORS**