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# **NH Army National Guard Armory Site**

**Parcel ID U023-025-000**

**Peterborough, New Hampshire**

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## **Phase I Environmental Site Assessment**

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Prepared for:

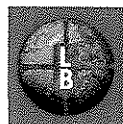
**Town of Peterborough, NH**

Peterborough, New Hampshire

Prepared by:

**The Louis Berger Group, Inc.**

Manchester, New Hampshire



January 2008

## EXECUTIVE SUMMARY

Under Contract with the Town of Peterborough ("Town"), The Louis Berger Group, Inc. ("Berger") conducted a Phase I Environmental Site Assessment ("ESA") of the property known as Parcel ID U023-025-000, located off Elm Street to the northwest of the intersection of Elm Street and Dublin Road (aka Route 101) in the Town of Peterborough, Hillsborough County, New Hampshire (the "Subject Property").

Berger understands that the Town is considering acquiring the Subject Property as part of its municipal improvement plan as the parcel is strategically located within the community. The Town has requested this Phase I ESA to help determine present environmental conditions to determine the need and appropriateness of Phase II ESA work on the Subject Property. The ESA was conducted in accordance with the scope and limitations of the ASTM International Standard E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and the "due diligence" regulations of the Comprehensive Environmental Response, Compensation and Liability Act and Section 9601 (35)(b) of the Superfund Amendment and Reauthorization Act.

The 3.2-acre property is currently owned by the New Hampshire Army National Guard (NHANG) with headquarters in Concord, NH. The parcel currently contains three building structures: a brick-masonry armory building; a brick-masonry motor vehicle storage building, and a small Morton steel building, as well as, two storage containers. The parcel has served as the NHANG facility since the late 1940's. Records show that the property has historically had two underground storage tanks (USTs) and currently has one active UST. Information provide by the parcel's owner have indicated that a number of hazardous materials have been used and/or stored on the property during its use as an NHANG facility. A number of small spills and releases of petroleum products have been declared over the years, each appearing to be handled appropriately by trained responders and environmental professionals. The Subject Property fronts Elm Street to the north of the intersection of Elm Street and Dublin Road. The Subject Property also serves as the access for the Town of Peterborough's Department of Public Works (DPW) Highway Garage with an easement granting the Town the right-to-pass and re-pass across the parcel to the DPW parcel to the west. The parcel abuts a number of sites that have historically experienced environmental concerns, including the aforementioned DPW facility (32 Elm Street), the Perry Motors site (36 Elm Street) and the Peterborough Ford Mercury site (145 Dublin Road).

Based on the data obtained during the Site inspection, subsequent regulatory and records review, and interviews with persons familiar with the Subject Property and its history, Berger identified several Recognized Environmental Conditions ("RECs") associated with the Subject Property.

- The Subject Property has a number of environmental concerns including former underground storage tanks ("USTs") and subsequent remediation activities, Hazardous Waste Generator ("HWG") status, and the currently utilized UST.
- A number of side-gradient and upgradient properties have had documented releases of oil or hazardous materials that have the potential to migrate via groundwater or the adjacent Nubanusit River wetland complex to/toward the Subject Property. These include the upgradient parcels at 36 Elm Street and the side gradient parcels at 145 Dublin Road. The REC's noted with these parcels range from registered Hazardous Waste Generator potential and UST registrations to full site remediation activities in the past and on-going. Site-specific information will follow in subsequent sections of this ESA.
- A down-gradient abutting parcel contains a documented release of oil or hazardous materials from former USTs. The down-gradient parcel also has a number of stockpiles containing asphalt.

The Subject Property also has a number of outbuildings containing equipment with hydraulic oil and a sand-n-salt storage building.

- Based on the topography, portions of the Subject Property appear to have been elevated with fill of an unknown origin and at various dates.
- The Subject Property contains a number of small debris piles including one containing metal shelving and another with some mortar rubble and cinder block and woody debris remnants.
- Portions of the Subject Property are utilized for the storage and maintenance of military vehicles. No access was granted to the interior of the Subject Property's buildings.

Based on the findings of this ESA, Berger recommends that additional investigations be performed prior to the redevelopment of the Subject Property to meet the Town's goals within its Master Planning effort. It is recommended that a Phase II ESA be conducted that would include: collection of soil, groundwater, sediment and surface water samples for laboratory analysis; the excavation of test pits and/or geophysical investigation to determine the extent of any off-site migration onto the Subject Property; and/or a preliminary human health risk assessment. A complete Phase II Scope of Work would be developed in conjunction with the Town of Peterborough. The results of the Phase II ESA would be utilized to determine the scope and extent of potential site remediation prior to redevelopment.

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## LIST OF ABBREVIATIONS AND ACRONYMS

AST	Aboveground storage tanks
ASTM	ASTM International
AUL	Activity and Use Limitation
Berger	The Louis Berger Group, Inc.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CORRACTS	Corrective Action Reports
DPW	Department of Public Works
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
ESS	ESS Group, Inc
FEMA	Federal Emergency Management Agency
HRS	Hazard Ranking System
HWG	Hazardous waste generator
kg	kilogram
LAST	Leaking aboveground storage tank
LUST	Leaking Underground Storage Tank
NHANG	New Hampshire Army National Guard
NHDES	New Hampshire Department of Environmental Services
NPL	National Priority List
NFRAP	CERCLIS No Further Remedial Action Planned
PAHs	polycyclic aromatic hydrocarbons
RCRA	Resource Conservation and Recovery Act
RCRAInfo	Resource Conservation and Recovery Act Information Database
REC	Recognized Environmental Condition
SHWS	State Hazardous Waste Site
SQG	Small Quantity Generator
SWF/LF	Solid Waste Facilities/Landfill Sites
TSDF	Treatment, Storage and Disposal Facility
USGS	United States Geological Survey
UST	Underground Storage Tank
VCP	State Voluntary Cleanup Agreement Sites

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## 1.0 INTRODUCTION

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This report presents the findings of a Phase I Environmental Site Assessment (“ESA”) prepared by The Louis Berger Group, Inc. (“Berger”) for the Town of Peterborough, New Hampshire for the Parcel ID U023-025-000, located at 25 Elm Street in the Town of Peterborough (“Town”), Hillsborough County, New Hampshire (the “Subject Property”).

Berger understands that the Town is considering acquiring the Subject Property as part of its municipal improvement plan as the parcel is strategically located within the community. The Town has requested this Phase I ESA to help determine present environmental conditions to determine the need and appropriateness of Phase II ESA work on the Subject Property. The ESA was conducted in accordance with the scope and limitations of the ASTM International Standard E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and the “due diligence” regulations of the Comprehensive Environmental Response, Compensation and Liability Act and Section 9601 (35)(b) of the Superfund Amendment and Reauthorization Act.

### 1.1 PURPOSE

The purpose of the Phase I ESA was to identify the presence of any Recognized Environmental Conditions<sup>1</sup> (“RECs”), Business Environmental Risks<sup>2</sup>, and/or Historical Recognized Environmental Conditions<sup>3</sup> as defined by ASTM International (“ASTM”) Standard Practice E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, with respect to the Subject Property. This report has been prepared for the Town at their request. The Town is also designated by the term “User,” within the context of ASTM Standard Practice E1527-05.

The application of ASTM Standard Practice E1527-05 in the preparation of this report is intended to permit the designated User of this report to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser (collectively, “landowner liability protections”) limitations on liability with respect to the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”). This report, therefore, intends to represent “all appropriate inquiry” into the previous ownership and uses of the Subject Property, consistent with good commercial or customary practice, as defined by CERCLA in 42 U.S.C. §9601(35)(B).

### 1.2 SCOPE OF SERVICES

Berger’s scope of services for this Phase I ESA consisted of the following components, as further detailed in subsequent sections of this report:

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1 ASTM Standard E1527-05 defines “Recognized Environmental Conditions” as follows: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term is not intended to include *de minimis* conditions that generally do 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.”

2 ASTM Standard Practice E1527-05 defines “business environmental risk” as “a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.”

3 ASTM Standard E1527-05 defines “Historical Recognized Environmental Condition” as follows: “an environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the Environmental Professional and will be influenced by the current impact of the historical recognized environmental condition on the property.”



- Records review;
- Site visit and reconnaissance;
- Interviews with present owner of the property;
- Interviews with local government officials; and
- Evaluation of information and preparation of a Phase I ESA report

The User's responsibilities, as set forth in Section 6 of ASTM Standard Practice E1527-05, with respect to the identification of RECs in connection with the Subject Property, comprise an additional scope of inquiry. These responsibilities consist of the following tasks and information sources, as further discussed in Section 3 of this ESA:

- Review of Title and Judicial Records for Environmental Liens or Activity and Use Limitations ("AULs");
- Specialized Knowledge or Experience of the User;
- Actual Knowledge of the User;
- Reason for Significantly Lower Purchase Price;
- Commonly Known or Reasonably Ascertainable Information; and
- Reason for Requesting a Phase I ESA

### **1.3 SIGNIFICANT ASSUMPTIONS**

In general, Berger has assumed in the conduct of this ESA that respondents to our inquiries offered information in good faith and that, through our research, we obtained reasonably correct and accurate information from the sources consulted. Other than these general assumptions, Berger is not aware of any significant assumptions applied in the preparation of this ESA.

### **1.4 LIMITATIONS AND EXCEPTIONS**

This investigation was limited to the review of available records, interviews with local officials and persons familiar with the Subject Property, and an on-site visual inspection. The site inspection was limited to observation of surficial conditions only. Such an inspection cannot be expected to reveal all oil or hazardous materials or situations that might be present on the site; some hazardous materials or conditions may exist and not be detected because they are beyond the scope of this study. The investigation was conducted in a manner consistent with that level of care and skill exercised by environmental professionals currently practicing under similar conditions and was based on information made available to the representatives of Berger. All documents prepared by or furnished by Berger pursuant to this project are to be used in the context of the scope of services contracted. This document is not intended or represented to be suitable for reuse by the client or others on modifications of the project scope. Reuse or release to third parties without the expressed written permission of the consultant is prohibited.

### **1.5 SPECIAL TERMS AND CONDITIONS**

Terms and Conditions of the contract for this ESA are set forth in "Cost Proposal for professional service related to the Evaluation and Assessment of the Peterborough Armory and Evans Flats Department of Public Works Facilities" dated May 1, 2007.

In accordance with the ASTM standard, persons conducting an environmental site assessment as part of an U.S. Environmental Protection Agency ("EPA") Brownfields Assessment and Characterization Grant awarded under CERCLA 42 U.S.C. §9604(k)(2)(B) must include controlled substances as defined in the

Controlled Substances Act (21 U.S.C. §802) within the scope of the assessment investigations to the extent directed in the terms and conditions of the specific grant or cooperative agreement.

## **1.6 USER RELIANCE**

This Phase I ESA was conducted in a manner consistent with the level of care and skill exercised by environmental professionals currently practicing under similar conditions and was based on information made available to Berger representatives. Berger conducted interviews, file, and data reviews to obtain information that could reveal the past or present use, storage and/or disposal of hazardous substances or petroleum products on or near the Subject Property. Berger performed a visual reconnaissance of the Subject Property to identify evidence of potential sources of contamination.

The Phase I ESA conforms to the general content requirements of ASTM Standard E-1527, to address the due diligence provisions of CERCLA. This report was prepared in accordance with Section 9601 (35)(b) of the Superfund Amendment and Reauthorization Act, to satisfy the provision that "all appropriate inquiry" be made into the presence or potential presence of hazardous substances or petroleum products on the Subject Property

Additional information, which was not available at the time of this report's preparation, may result in the modification of the information present herein. The scope of work for this Phase I ESA did not include evaluation of potential asbestos-containing or hazardous materials, radon gas, or lead-based paint.

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## **2.0 SITE DESCRIPTION**

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This section provides general information on the ownership and location of the Subject Property, and current uses of the Subject Property and surrounding properties. The Subject Property consists of a cleared area of approximately 3.2 acres in size. The Subject Property is currently owned by the New Hampshire Army National Guard (NHANG) and contains a brick-masonry armory building, a brick-masonry motor vehicle storage building, a small Morton steel building, as well as, two storage containers. The Subject Property also contains an area contained within a chain-link fence used for the purposes of storing NHANG vehicles and equipment.

### **2.1 LOCATION AND LEGAL DESCRIPTION**

The Subject Property is identified on Parcel ID U023-025-000 located to the west of Elm Street in the Town of Peterborough, Hillsborough County, New Hampshire. The general location of the Subject Property is shown on Figure 1 (Appendix A). Figure 2 (Appendix A) consists of a Site Plan, which shows the boundaries of the Subject Property on an aerial photograph.

The address of the Subject Property is given as 25 Elm Street. The Subject Property is located in the front of the Town of Peterborough's Highway Garage and to the north of the former Peterborough Ford Mercury (on Route 101). The Subject Property is approximately ¼ mile south of the Nubanusit River.

### **2.2 SITE AND VICINITY GENERAL CHARACTERISTICS**

The Subject Property, which consists of approximately three acres, is abutted on three sides by sites with historic environmental contaminations. The site is nearly level with a very slight topographic relief to the west toward the Highway Garage parcel and the Nubanusit wetland complex beyond it. The parcel has a shallow vegetated swale along its southern property boundary partially separating it from the abutting properties to the south.

### **2.3 CURRENT USE OF THE PROPERTY**

The Subject Property is currently used by for training and teaching operations associated with the NHANG. The 210<sup>th</sup> Engineering Detachment occupies the premises.

### **2.4 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE**

The only structures located on the premises are the two brick-mortared buildings, one small , as well as, two storage containers. The main armory building appears to be in relatively good repair, having been built in 1955. The motor vehicle storage building, constructed in 1949, was the original armory facility. No information on the (approximately 8 X 14) or two storage containers was available. No access to any of the buildings was provided. Ground cover at the Subject Property consists predominantly of grass, with pavement and gravel driveways around the two buildings.

There are a limited number of vehicles and pieces of equipment stored on the site within the chain-link fenced area. There are no roads currently on the Subject Property. Vehicular access to the Subject

Property is via Elm Street at the east side of the property and the property has a number of driveways and parking areas within it. The main drive servicing the Armory site also serves as the access to the Highway Garage parcel to the west.

## 2.5 CURRENT USE OF THE ADJOINING PROPERTIES

The Subject Property is located along the edge of the commercial and residential uses to the west of the center of Town. The Subject Property abuts a number of sites with environmental contamination in their histories.

Located to the immediate south of the Subject Property is a vacant lot. The vacant lot, on the northwest corner of Elm Street and Dublin Road, revealed no environmental history of note.

Located to the southwest of the Subject Property is Roberts Chrysler, formerly the Peterborough Ford Mercury. The site operates as an automobile dealership that performs routine maintenance and automotive body work. The site is also the former location of a convenience store named TNT Gas & Convenience. TNT was previously operated under the name of Peterborough Citgo. All that remains of the filling station is a small abandoned building. The tanks and the pump island were recently removed.

To the west of the Subject Property is the Town of Peterborough's Highway Garage. The site contains a pre-engineered vehicle storage and maintenance building and three large pole-barn style outbuildings. The site is approximately 27 acres and is a mix of upland and wetlands. The portion of the site utilized by the Highway Department is predominantly flat throughout with containment berms along a significant portion of the lot perimeter. The site is used for the storage and stockpile of materials and equipment consistent with the operation of a Highway Garage. The site has a number of different stockpiles of material including asphalt, masonry and woody debris, gravels, as well as culverts, ductile iron utility pipes, and other items common in the operation of public utilities. To the immediate north of the subject parcel is a secondary access point for property utilized by the Highway Garage. This driveway ends at a stockpile area approximately even with the western property boundary of the Armory parcel.

To the east and across Elm Street from the Subject Property is 36 Elm Street. 36 Elm is the location formerly operated as Perry Motors, an automobile dealership. Following its operation as Perry Motors, the site was occupied by Grappone DC. The site is currently vacant of occupants but continues to house a building and parking area.

The Nubanusit River is located to the north and northwest of the Subject Property. The Nubanusit River does not abut the river directly, but it is apparent that the River and its adjoining wetland complex have significant effects on the vegetation on the site and the abutting parcels.

To the north of the Subject Property, beyond the secondary access driveway to the Highway Garage, are residential properties. Based on the research performed, these residential properties do not appear to represent a REC with respect to the Subject Property.

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## **3.0 USER PROVIDED INFORMATION**

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The "User" of the Property, in accordance with ASTM Standard Practice E1527-05, is the New Hampshire Army Nation Guard (NHANG), headquartered in Concord, NH. Berger's point of contact within the NHANG was Col. Jeffrey Vorce. Col. Vorce was provided a User Questionnaire for completion as part of this ESA. The completed questionnaire, compiled by Eileen F. Chabot, NHANG – State Environmental Specialist, is provided as Appendix B.

### **3.1 TITLE RECORDS**

No title records were provided by the User. The NHANG has occupied the property since the mid-1940's.

### **3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS**

The User does not know of any environmental liens or AULs relevant to the Subject Property.

### **3.3 SPECIALIZED KNOWLEDGE**

Ms. Chabot provided information on the history of the Subject Property, relative to its status as a hazardous waste generator and USTs. The completed questionnaire is contained within Appendix B.

### **3.4 COMMONLY KNOW OR REASONABLY ASCERTAINABLE INFORMATION**

The User provided information on the Subject Property, its USTs and minor Initial Response Spill history and subsequent clean-ups.

### **3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES**

The Subject Property's deed provide for a reversionary clause for the parcel to return to the Town of Peterborough in the event that the NHANG no longer occupies the site.

### **3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION**

Information provided by the Subject Property owner, property manager, and/or occupant is provided in Section 6 and where otherwise stated. The Subject Property owner and property manager is the NHANG. There are no current occupants of the Subject Property.

### **3.7 REASON FOR PERFORMING PHASE I**

The Town of Peterborough has requested this Phase I ESA on behalf of the Town as it prepares to take the parcel and redevelop it as the parcel is strategically located in the community. The purpose of the

Phase I ESA is to determine present environmental conditions and the potential need for performing a Phase II ESA prior to reuse of the Subject Property.

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## 4.0 RECORDS REVIEW

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In order to supplement and cross-reference the information received from various sources, Berger commissioned a search of federal and state databases conducted by Environmental Data Resources, Inc (“EDR”) of Milford, Connecticut. If any information about the Subject Property or nearby properties was found, a discussion of the listing is presented in the text under the appropriate classification. Dates shown are those of the most recent updates to the databases. A complete copy of the database report is contained in Appendix C. Information from the EDR Report was supplemented with a review of files by Berger representatives at the New Hampshire Department of Environmental Services (“NHDES”).

### 4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Berger reviewed information from the following federal databases (publication date in parentheses), identified by ASTM Standard E1527, as sources of information relevant to the Phase I ESA process.

- National Priority List (“NPL”) (07/18/2007)
- National Priority List Deletions (“Delisted NPL”) (04/20/2007)
- Comprehensive Environmental Response, Compensation and Liability Information System (“CERCLIS”) (04/23/2007)
- CERCLIS No Further Remedial Action Planned (“CERCLIS-NFRAP”) (06/21/2007)
- Corrective Action Report (“CORRACTS”) (06/26/2007)
- Resource Conservation and Recovery Act Information (“RCRA”) (06/13/2006)
- Emergency Response Notification System (“ERNS”) List (12/31/2006)
- Engineering Controls Sites List (“US ENG CONTROLS”) (04/20/2007)
- Sites with Institutional Controls (“US INST CONTROL”) (04/20/2007)

Berger reviewed information from the following state databases, identified by ASTM Standard E1527, as sources of information relevant to the Phase I ESA process.

- Listing of All Sites (“SHWS”) (07/02/2007)
- Site Remediation & Groundwater Hazard Inventory Listing of All Sites (“ALLSITES”) (07/02/2007)
- Solid Waste Facility Information (“SWF/LF”) (05/15/2007)
- Leaking Underground Storage Tank Incident Reports (“LUST”) (07/02/2007)
- Underground Storage Tank Registration Data (“UST”) (07/02/2007)
- Leaking Aboveground Storage Tank Incident Reports (“LAST”) (07/02/2007)
- Aboveground Storage Tank Registration Data (“AST”) (07/02/2007)
- Voluntary Cleanup Program Sites (“VCP”) (12/04/2006)
- Activity and Use Restrictions (“INST CONTROL”) (06/19/2007)
- Brownfields Sites (“BROWNFIELDS”) (05/22/2007)

#### **4.1.1 Federal NPL Site List**

The EPA NPL (or "Superfund" List) is a federal listing of uncontrolled or abandoned hazardous waste sites that pose a potential risk to human health or the environment. The list is created from the CERCLIS database and is primarily based upon a score that each site or facility receives from the EPA's Hazard Ranking System ("HRS"). After a site or facility has been identified as a CERCLIS site, the EPA conducts an assessment of the property. The HRS score associated with the degree of environmental risk found is one of the determinations made as to whether the site is placed on the NPL. These sites are then prioritized for possible long-term remedial action and referred to the state for further action under state programs. No NPL Sites or Proposed NPL Sites were identified within a one-mile radius of the Subject Property on the environmental database report.

#### **4.1.2 Federal Delisted NPL Site List**

The National Oil and Hazardous Substances Pollution Contingency Plan establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 Code of Federal Regulations 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. No Delisted NPL Sites were identified within a one-mile radius of the Subject Property on the environmental database report.

#### **4.1.3 Federal CERCLIS Site List**

The CERCLIS List is a compilation of records from a nationwide database created to maintain and regulate those facilities or sites that the EPA has investigated or will investigate for suspected or uncontrolled releases of hazardous substances, contaminants or pollutants as reported by states, municipalities, private companies and private citizens under the CERCLA Program. Once a site is placed on the CERCLIS List, it may be subjected to several additional levels of evaluation, to determine the severity of the contamination from discovery and preliminary assessment to site inspection, and possibly the application of the HRS. Such a determination could ultimately place the site under consideration for inclusion on the NPL. Inclusion on the CERCLIS List does not confirm the presence of an environmental problem or a public health threat. No CERCLIS Sites were identified within a one-half mile radius of the Subject Property on the environmental database report.

#### **4.1.4 Federal CERCLIS-NFRAP Site List**

A search of the CERCLIS NFRAP sites listing revealed no listed facilities located within a one-half-mile radius of the Subject Property.

#### **4.1.5 Federal RCRA CORRACTS Facilities List**

The Resource Conservation and Recovery Act CORRACTS List is a list of hazardous waste handlers with RCRA Corrective Action Activity. No CORRACTS sites were identified within a one mile radius of the Subject Property on the environmental database report.

#### **4.1.6 Federal RCRA List**

RCRAInfo is the EPA's comprehensive information system, providing access to data supporting RCRA (the Resource Conservation and Recovery Act of 1976) and the Hazardous and Solid Waste Amendments of 1984. Inclusion on the list is not necessarily indicative of contamination; rather, it indicates the presence of potential sources of contamination. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA. Conditionally



exempt small quantity generators (“SQGs”) generate less than 100 kilograms (“kg”) of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kg of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that ship hazardous waste from the generator site to a facility that can recycle, treat, store, or dispose of the waste. Treatment, Storage or Disposal Facilities (“TSDFs”) treat, store, or dispose of the waste.

The Subject Property is listed as a RCRA small quantity generator. Eight RCRA generators were also identified within one-quarter mile of the Subject Property on the environmental database report (Appendix C), as listed in the following table:

<u>Site</u>	<u>Location</u>	<u>Classification</u>	<u>Violations</u>
Town of Peterborough (Subj.Property)	32 Elm Street	SQG	No
NH Army National Guard	25 Elm Street	SQG	No
Grappone DC, Inc.	36 Elm Street	SQG	No
Perry Motors, Inc.	Elm Street	SQG	No
St Peters Church	18 Vine Street	SQG	No
Town of Peterborough DPW	1 Grove Street	SQG	No
Byte Magazine	1 Phoenix Mill Lane	SQG	No
Premo Power Equipment	9 Depot Square	SQG	No
Peterborough Fire Department	16 Summer Street	SQG	No

#### **4.1.7 Federal ERNS List**

The ERNS List is a compilation of records from a national computer database and retrieval system created to store information on accidental releases of oil and hazardous substances. The information stored in this database is acquired through the National Response Center. Each reported incident is required to contain and provide the discharger name, date of release, amount released, and type of substance released. The database did not identify the Subject Property as an ERNS site.

#### **4.1.8 Federal US ENG CONTROLS List**

Engineering controls include various forms of caps, building foundations, liners, and treatment methods to eliminate pathways for regulated substances to enter environmental media or affect human health. The database did not identify any federal engineering control sites at the Subject Property or within one-half mile of the Subject Property.

#### **4.1.9 Federal US INST CONTROL List**

Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. The database did not identify any federal institutional control sites at the Subject Property or within one-half mile of the Subject Property.

#### **4.1.10 SHWS Sites List**

The NHDES maintains an inventory of the known contaminated sites in New Hampshire. These sites may or may not already be listed on the federal CERCLIS List. A review of the EDR database indicates

that the Subject Property is not listed as SHWS. The EDR Report lists 2 SHWS's within one mile of the Subject Property.

Site	Location	Distance/Direction
Perry Motors, Inc	Elm Street	0-1/8 miles ESE
PSNH Monadnock District Office	59 Grove Street	1/2-1 miles SSE

Based on the distance and location of the PSNH Monadnock District Office with respect to the Subject Property, releases of oil or hazardous materials on this SHWS are not expected to affect the Subject Property. The Perry Motors parcel (36 Elm Street) is across the street and apparently directly upgradient from the subject parcel. This parcel has had a number of businesses operating on it over the historic record including Peterborough Chrysler and Grappone DC. Based on a NHDES file review and conversations with local officials and the current property owner, it appears that a cleaning solution/solvent may have entered the soil from a floor drain. The chemical contamination being demonstrated through current groundwater sampling efforts appears to be limited to minor exceedances of tetrachloroethane at the source monitoring well, located approximately 60' hydraulically upgradient of the Elm Street R.O.W. property line.

#### 4.1.11 State ALLSITES List

This list provides information on sites in New Hampshire, with activities that either have resulted in groundwater contamination or pose a potential hazard to groundwater supplies. The regulated activities and groundwater hazards include: confirmed releases of oil or hazardous materials to the soil and/or groundwater as a result of discharges, spills, and removal of underground storage tanks; underground injection wells such as floor drains, leaching galleries, and septic systems anything other than domestic wastewater; large discharges of wastewater such as domestic wastewater septic systems which are designed to discharge more than 20,000 gallons per day, land application of wastewater treatment facility effluent (spray irrigation, rapid infiltration basins, etc) and unlined septage and wastewater lagoons; unpermitted hazardous waste storage facilities; and landfills and other waste repositories in which groundwater quality is at risk. The Subject Property is marked by EDR as being on the ALLSITES list. Eight other properties within a one-half mile radius of the Subject Property appear on the ALLSITES list.

Site	Location	Distance/Direction
Town of Peterborough	32 Elm Street	0-1/8 miles W
Perry Motors, Inc	Elm Street	0-1/8 miles ESE
Peterborough Town House	1 Grove Street	1/8-1/4 miles ESE
Town of Peterborough Fire Department	16 Summer Street	1/8-1/4 miles E
Bacon Property Garage	3 Summer Street	1/8-1/4 miles ESE
Bruce West	27 Winter Street	1/4-1/2 miles S
Putnam Graphics	100 High Street	1/4-1/2 miles NNW
A. W. Peters, Inc.	35 Summer Street	1/4-1/2 miles E
Dorothy Peterson	56-58 Concord St	1/4-1/2 miles ENE

#### 4.1.12 State SWF/LF Site List

According to the EDR report, the Subject Property is not listed as a SWF/LF facility. No SWF/LF facilities within one half mile of the Subject Property are listed on the EDR Report.

**4.1.13 State LUST List**

The LUST Incident Reports contain an inventory of reported leaking UST incidents. The Subject Property is a LUST site. The EDR report identifies no other LUST sites within one-half mile of the Subject Property.

The NHDES maintains an inventory of the LUST sites in New Hampshire. A search of the NHDES records indicate three LUST sites within one-half mile of the Subject Property.

Site	Location	Distance/Direction
Town of Peterborough	32 Elm Street	0-1/8 miles W
Peterborough Ford Mercury (aka TNT Gas & Convenience and formerly Peterborough Citgo)	145 Dublin Road	0-1/8 miles SSW
Bell Atlantic (former NE Telephone)	135 Dublin Road	0-1/8 miles WSW

Each of the three parcels identified: the Town of Peterborough DPW, the Bell Atlantic Site and the Peterborough Ford Mercury site; appear to have groundwater flows in a west-northwesterly direction away from the Subject Property. The proximity with the subject parcel makes the Peterborough Ford Mercury a REC relative to the Subject Property, however the DPW and Bell Atlantic parcels do not appear to represent a REC relative to the subject parcel.

**4.1.14 State UST List**

The UST database contains registered UST sites. The Subject Property and an adjoining site were identified as registered UST sites, as indicated below.

Site	Location	Distance/Direction
Peterborough Armory (Subj. Property)	25 Elm Street	0 miles
Town of Peterborough	32 Elm Street	0-1/8 miles W
Peterborough Ford Mercury (aka TNT Gas & Convenience and formerly Peterborough Citgo)	145 Dublin Road	0-1/8 miles SSW
Bell Atlantic (former NE Telephone)	135 Dublin Road	0-1/8 miles WSW

Historically, the Subject Property has had three UST's, ranging from 1,000 gallons to 3,000 gallons. A 3000-gallon #2 heating oil UST remains in use at the property. According to NHDES, the current UST is in compliance with UST regulations. The two 1,000-gallon UST's (containing diesel fuel and gasoline) at the adjacent parcel (32 Elm Street), were removed in 1993. A total of 8 USTs were historically located at the Peterborough Ford Mercury Site. All of these tanks have been removed or closed. Also, a total 6 USTs were located at the Bell Atlantic parcel within the historic record, all of which are currently closed or have been removed.

**4.1.15 State LAST List**

The LAST Incident Reports contain an inventory of reported leaking AST incidents. The EDR report identifies the one LAST site within one-half mile of the Subject Property:

Site	Location	Distance/Direction
A. W. Peters, Inc.	35 Summer Street	1/4-1/2 miles E

The listed LAST site is not adjacent to the Subject Property and does not represent a REC with respect to the Subject Property.

#### **4.1.16 State AST List**

The AST database contains registered aboveground storage tanks within the vicinity of the subject parcel.

Site	Location	Distance/Direction
Town of Peterborough	32 Elm Street	0-1/8 miles W
A. W. Peters, Inc.	35 Summer Street	1/4-1/2 miles E

Two 1,000-gallon ASTs, gasoline and diesel fuel, are in operation at the adjacent Peterborough DPW property. The A.W. Peters site is not adjacent to the Subject Property and does not represent a REC with respect to the Subject Property.

#### **4.1.17 State VCP List**

The program provides comprehensive liability protections to eligible persons who voluntarily assume responsibility for the cleanup of contaminated properties. The sites on the list are ones where persons have applied to participate in the program and in most cases have been deemed eligible. There were no VCP sites identified within one-half mile of the Subject Property in the environmental database report.

#### **4.1.18 State INST CONTROL List**

The State Institutional Control list is an inventory of sites where activity and use restrictions have been utilized as a method of institutional control. A search of this list shows no institutional control sites within one-half mile of the Subject Property.

#### **4.1.19 State BROWNFIELDS List**

There were no Brownfields sites identified within one-half mile of the Subject Property in the EDR report.

## **4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES**

Additional environmental records reviewed included local records. Relevant findings are provided below.

### **4.2.1 Peterborough Fire Department**

The Peterborough Fire Department was contacted regarding the response history at the Subject Property. Chief Lenox reported that the site has not generated any response calls that would trigger a REC for purposes of this ESA.

### **4.2.2 Other**

No other information sources were immediately determined through the research associated with this ESA.

### **4.3 PHYSICAL SETTING SOURCES**

Information on the physical setting of the Subject Property and surrounding area was provided in NHDES files, the EDR Report provided as Appendix C, and a review of maps and relevant documents referenced below. The project area is located in Hillsborough County, New Hampshire.

#### **4.3.1 USGS Topographic Map**

On the basis of the USGS "Peterborough, New Hampshire" topographic quadrangle map (See Figure 1, Appendix A), the topography of the Subject Property vicinity is relatively flat, with an average elevation of about 795 feet above sea level. The general slope of the area is towards the north.

#### **4.3.2 Bedrock Geology Map**

No Bedrock Geology Mapping was used in this review.

#### **4.3.3 Surficial Geology Sources**

No Surficial Geology Mapping was used in this review.

#### **4.3.4 Hydrology Sources**

The Report provided by EDR (see Appendix D) provided limited information on the vicinity hydrology. In general, the overland and topographic hydrology in the vicinity of the Subject Property would indicate flow in a northwesterly direction toward the Nubanusit River and its expansive wetland complex. This general trend places the subject property down-gradient of the 36 Elm Steet site.

### **4.4 HISTORICAL USE INFORMATION ON THE *PROPERTY***

Information on history of the Subject Property was obtained through interviews with persons familiar with the area, municipal records, historic maps, and aerial photographs.

#### **4.4.1 Aerial Photographs**

Berger reviewed aerial photographs of the Subject Property vicinity dated 1975, 1987, and 1998. The small scale (1 inch = 1,000 feet and 1 inch = 750 feet) and relatively poor quality of these photographs limits the extent of land use interpretation. Review of the photographs indicates that built structures existed on the Subject Property, a fact that has been confirmed by the NHANG. Copies of these photographs are presented in Appendix D.

#### **4.4.2 Fire Insurance Maps**

No Sanborn Company Fire Insurance Company maps are available of the Subject Property. Maps, dated 1892, 1904, 1911, 1924, 1941, and 1951, of the vicinity (to the immediate north) of the Subject Property were available however. Copies of these historical maps are provided in Appendix D. Relative to the Subject Property, the Sanborn Maps do not indicate the likelihood of additional RECs outside of the ones indicated through other sections of this document.

#### **4.4.3 Property Tax Files**

The town of Peterborough maintains tax-cards on each parcel within the Town, however the tax-card records do not contain environmental records. Copies of the tax cards are included as Appendix D.

#### **4.4.4 Recorded Land Title Record**

Land Title Records were not used in this review.

#### **4.4.5 Historical USGS Topographic Maps**

Berger reviewed USGS 15-Minute Topographic Map, Peterboro, NH Quadrangle, dated 1900 and 1953. The 1900 map shows the area of the Subject Property as undeveloped with the exception of several structures. The 1953 map shows moderate development in the area of the Subject Property. Also on the 1953 map, a structure which appears to be on the Subject Property is labeled as *Armory*. By review of these maps, the use of the Subject Property in 1900 cannot be determined, but as of 1953 it was used as an armory. The single structure on the Subject Property, as shown on the 1953 map, appears on the current USGS topographic mapping of the area.

#### **4.4.6 Local Street Directories**

Local Street Directories were not used in this review.

### **4.5 HISTORICAL USE INFORMATION ON ADJOINING PROPERTIES**

#### **4.5.1 Aerial Photographs**

As noted in Section 4.4.1, Berger reviewed aerial photographs of the Subject Property vicinity dated 1975, 1987, and 1998. The small scale (1 inch = 1,000 feet and 1 inch = 750 feet) and relatively poor quality of these photographs limits the extent of land use interpretation. Review of the photographs shows that built structures existed on land adjoining the Subject Property; however, little can be determined about property use. Copies of these photographs are presented in Appendix D. Relative to the Subject Property, the aerial photographs do not indicate the likelihood of additional RECs outside of the ones indicated through other sections of this document.

#### **4.5.2 Fire Insurance Maps**

No Sanborn Company Fire Insurance Company maps are available of the Subject Property. Maps, dated 1892, 1904, 1911, 1924, 1941, and 1951, of the vicinity (to the immediate north) of the Subject Property were available however. Copies of these historical maps are provided in Appendix D. Relative to the Subject Property, the Sanborn Maps do not indicate the likelihood of additional RECs outside of the ones indicated through other sections of this document.

#### **4.5.3 Property Tax Files**

Property Tax Files were not useful in this review; however copies of the tax cards for the Subject Property and nearby properties with notable RECs are presented in Appendix D.

#### **4.5.4 Historical USGS Topographic Maps**

Berger reviewed USGS 15-Minute Topographic Map, Peterboro, NH Quadrangle, dated 1900 and 1953. The 1900 map shows the area of the Subject property as undeveloped with the exception of several structures. The 1953 map shows moderate development in the area of the Subject Property. Also on the 1953 map, a structure which appears to be on the Subject Property is labeled as *Armory*. The use of the properties surrounding the Subject Property cannot be determined by reviewing these maps.

#### **4.5.5 Local Street Directories**

Local Street Directories were not used in this review.

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## 5.0 SITE RECONNAISSANCE

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Berger representatives conducted a site inspection at the Subject Property on August 17, 2007. The weather was sunny with a temperature of about 65-75°F during the site inspection. The ground surface was clear with flush grass growth. Berger personnel were allowed to review the site unaccompanied during the site inspection. Photographs taken during the site visits are included as Appendix E.

The Subject Property consists of a 3-acre lot separated into two portions by the paved access to the Highway Garage. The northern portion of the site contains the Armory building and a small Morton steel building, as well as, two storage containers. The southern portion of the site contains the Motor Vehicle Storage Building and a secured (chain-link fence) equipment storage area. The site appears to be serviced by electrical power, city water and sewer.

### 5.1 METHODOLOGY AND LIMITING CONDITIONS

Berger toured the Subject Property from the Elm Street access and walked the perimeter of the grassed areas. The periphery of the buildings was also reviewed, with particular attention given to any staining on the paved and gravel areas and under the stored vehicles and equipment. Heavy vegetation along the perimeter of the lawn areas limited visibility and access to those portions of the site. Also, the buildings were inaccessible during the time of the field reconnaissance. Observations are limited to what could be seen while touring the property as other vantage points were limited.

### 5.2 GENERAL SITE SETTING

The Subject Property consists of a relatively flat lot transected by an access drive to the Highway Garage. The site contains three buildings: two brick-mortar buildings, one Morton steel building, as well as, two storage containers. The remainder of the site has grassed areas and paved and gravel areas. The remainder of the site is wetland and forested wetland areas. Additional descriptions of the Subject Property and surrounding area are contained in Section 2.

### 5.3 EXTERIOR OBSERVATIONS

The buildings on the Subject Site appear to be in relatively good repair. It was apparent from the mortar work that the buildings were likely 50 years old or more. The Armory building is notable newer and in better repair than the Motor Vehicle Storage Area. In isolated areas, select piles of debris are stored at the site. These piles of debris were limited to a (predominantly) metal pile behind the Armory Building and a small pile of mortar, bricks and cinder block, as well as a limited amount of woody debris, near the Motor Vehicle Storage Building.

The Subject Property is roughly half utilized by the NHANG and half vegetated by wetlands and forested wetland vegetation. A vegetated wetland swale, located along the southern property boundary, traverses westerly to the Nubanusit wetland complex to the west behind the adjacent Highway Garage. A separate area of the same wetland complex flanks the northern property boundary.

### 5.4 INTERIOR OBSERVATIONS

No access was granted to the interior of the Subject Property buildings.



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## **6.0 INTERVIEWS**

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Berger inquired as to the availability, for interviews, of past owners, operators, and occupants of the property who were likely to have material information regarding the potential for contamination at the property, to the extent that such persons could be identified. Information received is described below.

### **6.1 INTERVIEWS WITH OWNER**

The current owner of the Subject Property is the New Hampshire Army National Guard (NHANG). Col. Jeffrey Vorce, provided information on history of the Subject Property and area, provided in Sections 4.4 and 4.5, and the proposed reuse of the property. Eileen Chabot, NHANG-State Environmental Specialist, completed the User questionnaire from the stand-point of being the current site owner/occupant. The NHANG intends to vacate the Subject Property in the near future. The NHANG indicated that the Subject Property has been utilized by the NHANG as a training facility since the 1940's and is currently occupied by the 210<sup>th</sup> Engineer Detachment.

### **6.2 INTERVIEWS WITH SITE MANAGER**

No site manager interviews were conducted. All correspondences were directed through Col. Vorce and the NHANG in Concord, NH.

### **6.3 INTERVIEWS WITH OCCUPANTS**

No interviews were conducted with current occupants.

### **6.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS**

Berger reviewed municipal records and interviewed the local Fire Department and Assessor's Office, as described in Sections 4.2 and 4.4 and listed in Section 12.

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## 7.0 FINDINGS

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Berger has completed a Phase I ESA for the Subject Property identified as the New Hampshire Army National Guard (NHANG), Assessor's Plat Map U023, Lot 025 located at 25 Elm Street in the Town of Peterborough, Hillsborough County, New Hampshire. This Phase I ESA was conducted in conformance with ASTM Standards related to the Phase I ESA process. The Phase I ESA was based on a site inspection, interviews with personnel familiar with the site, a review of available files and historical records, and the findings of an environmental database report. The purpose of the Phase I ESA was to help identify RECs at the Subject Property and to determine that the potential need for a Phase II ESA prior to the proposed reuse of the Subject Property.

### 7.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

Based on the data obtained during the site inspection, subsequent regulatory and records review, and interviews with persons familiar with the Subject Property and its history, Berger identified the following RECs associated with the Subject Property:

- The Subject Property has a number of REC concerns including former underground storage tanks ("UST") which undertook subsequent remediation activities.
- The site is a small-quantity Hazardous Waste Generator ("HWG") with hazardous materials stored on site as identified in the User Questionnaire, see Appendix B.
- The currently utilized underground storage tank.
- A number of side-gradient properties and one upgradient property have had documented releases of oil or hazardous materials that have the potential to migrate via groundwater or the adjacent Nubanusit River wetland complex to/toward the Subject Property. These include the upgradient parcels at 36 Elm Street and the side gradient parcels at 145 Dublin Road. The REC's noted with these parcels range from registered Hazardous Waste Generator potential and UST registrations to full site remediation activities in the past and on-going
  - The Subject Property contains a number of small debris piles including one containing metal shelving and another with some mortar rubble and cinder block and woody debris remnants.
  - Portions of the site are utilized for the storage and maintenance of military vehicles. No access was granted to the interior of the Subject Property's buildings.

### 7.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

Berger did not identify any Historical RECs (i.e., a condition that would have been a REC in the past but may or may not currently exist) related to the Subject Property and considered all historic evidence as a current REC.

### **7.3 BUSINESS ENVIRONMENTAL RISKS**

The encroachment of wetlands into the site could present future business environmental risk. As previously described, access to the interior of the buildings was not provided as part of the field reconnaissance, so the interior of the building could also contain materials requiring special disposal and abatement considerations to future users.

### **7.4 DE MINIMIS CONDITIONS**

RECs do not include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of a regulatory enforcement action. The Subject Property is near the Nubanusit River which has the potential to flood the Subject Property and to potentially transport oil or other hazardous materials from upstream properties, road surfaces, and parking lots onto the Subject Property. The potential reduced quality of the adjacent river represents a *de minimis* condition with respect to the Subject Property. In addition, the Subject Property contains a number of small debris piles, including one that was predominantly metal and another that was masonry/concrete cinder blocks and woody debris that are considered to be *de minimis* conditions.

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## 8.0 OPINION

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Based on the findings of this ESA, summarized in Section 7, Berger believes that the RECs identified would warrant further investigation to determine the extent to which environmental remedies might be required in connection with the Subject Property. Information obtained in this ESA indicates that the Subject Property has the potential to be both a receptor and, although to a lesser degree, a source of environmental impacts, based on its location downgradient/side-gradient from properties with historic and on-going environmental contamination. Further, the sites proximity to the Nubanusit River, and its frontage along a number of REC site's leaves the Subject Property subject to overland contamination during flooding events.

The identification of these RECs on the Subject Property indicates the need for additional investigations in the form of a Phase II ESA and potential remediation prior to reuse of the Subject Property. The specific scope of a potential Phase II ESA would be developed in conjunction with Town of Peterborough and presented under separate cover.

The proposed reuse of the Subject Property as it relates to the Town's Master Planning efforts could constitute an "active" use under EPA guidelines and therefore requires a public meeting following completion of the Phase I ESA for public comment.

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## 9.0 CONCLUSIONS

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We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 of the New Hampshire Army National Guard Armory, Peterborough Tax Assessor's Parcel ID U023-025-000, located at 25 Elm Street in the Town of Peterborough, Hillsborough, New Hampshire. Any exceptions to, or deviations from this practice are described in Section 10 of this report.

This assessment has revealed no evidence of *recognized environmental conditions* in connection with the *property* except for the following:

- The Subject Property has a number of REC concerns including former underground storage tanks ("UST") which undertook subsequent remediation activities.
- The site is a small-quantity Hazardous Waste Generator ("HWG") with hazardous materials stored on site as identified in the User Questionnaire, see Appendix B.
- The currently utilized underground storage tank.
- A number of side-gradient properties and one upgradient property have had documented releases of oil or hazardous materials that have the potential to migrate via groundwater or the adjacent Nubanusit River wetland complex to/toward the Subject Property. These include the upgradient parcels at 36 Elm Street and the side gradient parcels at 145 Dublin Road. The REC's noted with these parcels range from registered Hazardous Waste Generator potential and UST registrations to full site remediation activities in the past and on-going
- The Subject Property contains a number of small debris piles including one containing metal shelving and another with some mortar rubble and cinder block and woody debris remnants.
- Portions of the site are utilized for the storage and maintenance of military vehicles. No access was granted to the interior of the Subject Property's buildings.

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## 10.0 DEVIATIONS

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A number of deviations from ASTM Standard Practice E1527-5 were noted for this Phase I ESA. Data gaps and data failures are summarized below:

- The NHANG prepared the USER questionnaire from the standpoint of the current site owner and occupant in lieu of interviews. The NHANG's "User Questionnaire" is included in Appendix B.
- Interior Access to the building represents a data gap deviation.
- The lack of Sanborn Map coverage at the subject property represents a data gap deviation.
- The small scale and poor image quality of the aerial photography represents a data failure deviation.
- Communications with the current site occupants were not conducted as all correspondences were directed to Col. Jeffrey Vorce in the Concord, NH NHANG Headquarters.

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## 11.0 ADDITIONAL SERVICES

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The scope of work for this ESA did not address other non-scope considerations, including, but not limited to:

- Wetlands protection;
- Regulatory compliance;
- Cultural and historic resources;
- Industrial hygiene;
- Health and safety;
- Ecological resources;
- Air quality;
- Biological agents;
- Mold;
- Flood hazards;
- Electromagnetic fields;
- Seismic hazards;
- Stormwater management or drainage;
- Structural engineering or integrity;
- Geotechnical engineering;
- Public safety; or
- Dam safety.

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## 12.0 REFERENCES

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### 12.1 DOCUMENTS

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, E 1527-05, West Conshohocken, Pennsylvania, November 2005.

FirstSearch Technology Corporation. *Fire Insurance Map – ProQuest Information and Learning's Digital Sanborn Maps, 1867-1970*. Search performed on February 5, 2007.

FirstSearch Technology Corporation. *Historical Aerial Search; Latitude: 41.724928, Longitude: 71.537184, Crompton Quad; 1939, 1951, 1972, and 1981*. Search performed on February 5, 2007.

FirstSearch Technology Corporation. *Site Detail Report*, February 5, 2007.

Town of Peterborough Assessor's Office, Assessor's Maps 023

University of New Hampshire GRANIT website, <http://www.granit.unh.edu/>

U.S. Federal Emergency Management Agency. *Flood Insurance Rate Map, Town of Coventry, Rhode Island*. Community Panel Number 440004 0011B. Map revised May 21, 2001.

U.S. Geological Survey. *7.5-Minute Topographic Quadrangle Map*. Peterborough, New Hampshire Quadrangle.

U.S. Geological Survey. *15-Minute Topographic Quadrangle Map*. Peterboro, New Hampshire Quadrangle. Washington D.C., 1900.

U.S. Geological Survey. *15-Minute Topographic Quadrangle Map*. Peterboro, New Hampshire Quadrangle. Washington D.C., 1953.



## 12.2 PERSONAL COMMUNICATIONS

Rodney Bartlett  
Director of Public Works  
Town of Peterborough  
1 Grove Street  
Peterborough, NH 03458

Chief Joseph Lenox III  
Peterborough Fire Department  
16 Summer Street  
Peterborough, NH 03458

Judy Blake  
Assessing Department  
Town of Peterborough  
1 Grove Street  
Peterborough, NH 03458

Ron Dubois  
Highway Superintendant  
Town of Peterborough  
1 Grove Street  
Peterborough, NH 03458

Jack Chwasciak  
NH Department of Environmental Services  
PO Box 99, 6 Hazen Drive  
Concord, NH 03302-0095

Col. Jeffrey Vorce to:  
Eileen F. Chabot, NHANG – State  
Environmental Specialist  
4Pembroke Road  
Concord, NH 03301

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## 13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

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The environmental professionals whose signatures are provided below performed and reviewed this environmental site assessment.

We declare that, to the best of our knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 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 CFR Part 312.

REVIEWED BY:



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Daniel M. Lanier, LSP, LEP

APPROVED BY:



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Robert J. Saunders, PE

DATE:

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January 18, 2008

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## **14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

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The environmental professionals whose principal qualifications are identified below performed and reviewed this environmental site assessment.

Gary Deblois is an Environmental Engineer with 3 years of experience conducting Phase I and Phase II environmental site assessments, remedial actions, and environmental monitoring assignments.

Daniel M. Lanier is a Licensed Environmental Professional (No. 165) in the State of Connecticut, and a Licensed Site Professional (No. 9180), in the Commonwealth of Massachusetts, with over 20 years of experience conducting environmental site assessments.

Robert J. Saunders is a Licensed Professional Engineer (No. 11537) in the State of New Hampshire, with over 10 years of experience in the environmental and industrial consulting business.

Appendix F contains supporting documentation of the qualifications of the environmental professionals identified above, and the personnel who conducted the site reconnaissance and interviews in this Phase I ESA.