COMBINED PHASE I AND PHASE II

ENVIRONMENTAL SITE ASSESSMENT

December 15, 2004

Site Identification:	**307 and 321 Railroad Avenue City of Peekskill Westchester County, New York**
Tax Lot Identification:	**Section 32.12, Block 8, Lots 17 and 18**
Property Description:	**Approximately 0.4-acre property containing a small, concrete-block building and a parking lot**

NYSDEC Spill File Number: 0409835

ESI File: GP04143.10

Prepared By:

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Prepared For:

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Phase I services performed by Ecosystems Strategies, Inc. and summarized in this Combined Phase I and II ESA have been conducted in accordance with Method E 1527-00 as developed by the American Society for Testing and Materials (ASTM), and all fieldwork services were performed in accordance with generally accepted practices and established New York State Department of Environmental Conservation (NYSDEC) protocols.

The undersigned has reviewed this Combined Phase I and II ESA and certifies to Ginsburg Development Corporation that the information provided in this document is accurate as of the date of issuance by this office

Paul H. Ciminello
President

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

This Combined Phase I and Phase II Environmental Site Assessment (Combined Phase I & II ESA) identifies environmental conditions (that might represent a financial liability resulting from or associated with the storage, use, transport, or disposal of hazardous or regulated materials), and chronicles fieldwork, on the property located at 307 and 321 Railroad Avenue, City of Peekskill, Westchester County, New York. More complete property descriptions are provided in Sections 2.1 and 3.4.2, below.

1.2 Methodology

Phase I Environmental Site Assessment components of this Combined Phase I & II ESA have been prepared in conformance with guidelines set forth by the American Society for Testing and Materials (ASTM) Method E1527-00. Fieldwork services summarized in this Combined Phase I & II ESA were performed in accordance with generally accepted practices and established New York State Department of Environmental Conservation (NYSDEC) protocols. The specific components of this Combined Phase I & II ESA are as follows:

1. Investigation of the subject property's history and characteristics through the analysis of historic maps, local and regional maps, municipal records, and information provided by subject property representatives. Complete references are provided in Section 6.0 of this Combined Phase I & II ESA.

2. Review of federal and state computer databases and printed records for documentation of potential liabilities relevant to the subject property. Records reviewed and corresponding search distances are consistent with, or exceed, the requirements set forth by the ASTM.

3. Visual inspection of the subject property conducted on October 7, 2004 by Scott Spitzer of Ecosystems Strategies, Inc. (ESI).

4. Investigation of subsurface soil conditions on specified portions of the subject property by ESI personnel on November 20, 2004. This additional investigative work was limited to areas of potential contamination identified during the Phase I review.

1.3 Limitations

This Combined Phase I & II ESA is an evaluation of the property described in Section 2.1 below and is not valid for any other property or location. It is a representation of the property analyzed as of the dates that services were provided. This Combined Phase I & II ESA cannot be held accountable for activities or events resulting in environmental liability after the respective dates of the site inspection, historic and regulatory research, or fieldwork.

This Combined Phase I & II ESA is based in part on certain information provided in writing or verbally by federal, state and local officials (including public records) and other parties referenced herein. The accuracy or completeness of this information was not independently verified. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgement.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Description of the Subject Property

The subject property as defined in this Combined Phase I & II ESA consists of the approximately 0.4-acre property located at 307 and 321 Railroad Avenue, City of Peekskill, Westchester County, New York. The subject property comprises two tax lots (City of Peekskill Tax IDs: Section 32.12, Block 8, Lots 17 and 18). A Site Location Map is provided on Page 4 and a Fieldwork Map is provided on Page 5. Photographs of the subject property are provided in Appendix A.

The subject property is an irregularly shaped parcel, which has 200 feet of frontage on the eastern side of Railroad Avenue. A small, one-story concrete-block building, occupied by a taxi dispatcher and dry cleaning drop-off facility, is located on the northern portion of the property. The remainder of the property is utilized as a commuter parking lot.

The specified portion of the property on which the Phase II investigation was conducted (hereafter referred to as the "Site") consists of areas to the south and west of the on-site building (a former service station), which were likely to have been impacted by releases from two, on-site inactive petroleum underground storage tanks (USTs).

2.1.1 Site Topography

Information on the subject property's topography was obtained from the review of the United States Geological Survey (USGS) Topographic Map of the Peekskill, New York Quadrangle. A copy of the relevant portion of the USGS Topographic Map, with the subject property indicated, is included in Appendix B. The subject property is located in a relatively flat area adjoining the eastern shore of the Hudson River, and is bordered to the east by somewhat steep, westward-sloping terrain. The topographic map indicates that the subject property has surface elevations ranging from approximately 40 to 50 feet above mean sea level. Observations made during the site inspection indicate that the subject property is relatively level, with the exception of portions of the eastern margin, which are located on a moderately to steeply westward sloping hillside. The topographic map did not indicate the presence of any soil/gravel mining operations or unusual topographic patterns indicative of landfilling activities on the subject property.

2.1.2 Site Geology

During the course of the fieldwork documented in this Combined Phase I & II ESA (see Section 4.0), subsurface soils exposed during the extension of borings, to a maximum depth of 12' below surface grade (bsg), were noted to consist of dark colored sands of variable texture. Bedrock was not encountered during the subsurface investigation. No other information regarding site-specific investigations of the subsurface (e.g., test pits or borings) was readily available and no other documented determinations are provided in this Combined Phase I & II ESA.

The United States Department of Agriculture Soil Conservation Service's Soil Survey of Putnam and Westchester Counties, New York (Soil Survey) was reviewed by this office to ascertain which soil types are likely to be present on the subject property. The Soil Survey indicates that the subject property is located in an area composed of the Udorthents, wet substratum (0-3% slopes) soil type. This soil unit consists of somewhat poorly to very poorly drained soils that have been altered by cutting and filling activities. Fill materials range in texture from sand to silt loam, and overlie native materials consisting of mineral soils or organic deposits. No information regarding depth to bedrock was provided for the Udorthents soil type. No exposed bedrock was observed during the site inspection.

2.1.3 Site Hydrogeology

Saturated soils were encountered at approximately 6' to 8' bsg during the extension of soil borings (see Section 4.0). No other data documenting groundwater depth, or site-specific investigation of groundwater direction of flow, is known to exist for the subject property. A review of the above referenced topographic map indicates that shallow groundwater flow in the vicinity of the subject property is likely to be in a westerly direction, toward the Hudson River, located approximately 0.15 mile west of the subject property.

2.1.4 Surface Hydrology

Information regarding on-site surface hydrology was obtained from the review of available maps and from observations made by this office during the October 7, 2004 site inspection. According to these sources, there are no surface water bodies located on the subject property.

Wetlands

This office reviewed the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands Map and the United States Department of the Interior National Wetlands Inventory Map of the quadrangle in which the subject property is located. These maps show that there are no designated state or federal wetlands on or in the immediate vicinity of the subject property.

2.2 Description of Surrounding Properties

2.2.1 Surrounding Land Uses

The subject property is located in an urban area. A description of the adjoining and nearby properties is provided in Table 1, below.

Table 1: Land Uses in the Vicinity of Subject Property

Direction	Adjoining Use(s)	Vicinity Use(s)
North	• Riverfront Café (delicatessen)	• Small commercial
East	• Single family residential	• Residential
South	• Municipal parking lot	• Saint Francis religious facility
West	• Peekskill train station • Restaurant	• Railroad tracks and Hudson River

2.2.2 Sensitive Environmental Receptors

The review of maps and observations made during the site inspection indicate that there are no sensitive environmental receptors located on the subject or adjoining properties. The Hudson River is located approximately 0.15 mile west of the property.

Site location

Selected site features

3.0 INVESTIGATION

3.1 Ownership Records

Property ownership information is gathered from available sources, including City of Peekskill Assessor's Office and Building Department records. This ownership summary does not constitute a title search.

Table 2: Ownership Information

Parcel ID	Owner	Date of Purchase
Section 32.12, Block 8, Lot 17	Arthur Rinaldi	Prior to 1954
	Agnello Scaramellino	February 1968
	Sorrento Enterprises, Inc.	September 1972
	307 Railroad Avenue Corp.	July 1987
Section 32.12, Block 8, Lot 18	Agnello Scaramellino	unknown
	Raffaella Scaramellino	August 1965
	Salvatore Scaramellino	March 1983
	307 Railroad Avenue Corp.	July 1987

3.2 Site History

In order to research the history of the subject property, the following sources were utilized: historic maps, City of Peekskill Assessor's Office and Building Department files, and information provided by subject property representatives.

3.2.1 Sanborn Fire Insurance Maps

A summary of the information obtained from the review of historic Sanborn Fire Insurance Company Maps dated 1887, 1895, 1900, 1905, 1911, 1923, 1942, 1950, 1958, 1964, 1971, and 1972 is provided below. Copies of relevant Sanborn maps (with the subject property outlined) are provided in Appendix C.

1887: Coverage is provided only for the northern portion of the subject property, which is vacant, as are the adjoining properties to the north and east (only partially shown). The adjoining property to the west contains a railroad station and tracks. The southern adjoining property is not depicted. The surrounding area to the north and northeast contains a mix of small commercial and residential properties, while the area to the northwest, along the Hudson River, generally contains large commercial and industrial uses (e.g., foundries). Municipal water is depicted as being available to the property. No petroleum or chemical bulk storage tanks are noted on the subject property, adjoining properties, or in the surrounding area.

1895: The subject property and all adjoining properties are fully shown on the map, and less coverage is provided for surrounding areas to the north. A three-story store is now located on the southwestern corner of the subject property (Lot 18). The adjoining property to the south contains a dwelling and several dwellings (fronting South Street) are located on the adjoining properties to the east. No other significant changes are noted on the map.

1900: The on-site building is now labeled as a restaurant and a stable is located on the most northerly of the two adjoining properties to the north. No other significant changes are noted on the map.

1905: The restaurant is now labeled as a saloon and a small, one-story addition has been constructed on the eastern side of the building. No other significant changes are noted on the map.

1911: The on-site saloon has been enlarged and a new private garage is located on the central portion of the subject property (southeastern corner of Lot 17). No significant changes are noted on adjoining properties. A large stove works located in the area northwest of the property is now gone; no other significant changes are noted in the surrounding area.

1923: The saloon is now labeled as a store and a small outbuilding has been constructed at the southeastern portion of the property. The adjoining property to the south is now vacant, and the northerly adjoining stable is now a large garage. No other significant changes are noted on the map.

1942: This is a small-scale map designed to present a broad overview of the surrounding area; details of the subject property, however, are visible. The property appears to be unchanged, with the exception of another small outbuilding at the southeastern corner of the parcel. Large commercial uses in the surrounding area to the northwest (at the Hudson River) are now limited to the presence of coal yards.

1950: The three-story structure is now labeled a restaurant and the building has been somewhat modified. A small garage has replaced the outbuildings located to the rear of the structure. An additional one-story restaurant (the size and shape of a mobile diner) is now present on the northwestern portion of the subject property (Lot 17). The dwelling located on the adjoining property to the south is gone. No other significant changes are noted on the subject property or at adjoining properties. The surrounding area to the north now includes two facilities with gasoline storage tanks (a filling station and a garage) and a fuel oil terminal (located at the Hudson River).

1958: A one-story, concrete block building, labeled “filling station” is located at the northern-central portion of the property (Lot 17). No associated storage tanks are depicted on the map. The restaurant on the southern portion of the property has been expanded to the southeast and both on-site garages are now gone. The adjoining property to the south is now a vacant parcel labeled “parking” and the garage on the adjoining property to the north has a new commercial use, which is not clearly labeled on the map.

1964: The restaurant on the southern portion of the property has been expanded again and the small restaurant on the northern portion of the property is now gone. The most southerly of the adjoining properties to the north now contains a small restaurant, while the other northerly adjoining property is now labeled “new car storage”. No other significant changes are noted on the map.

1971-
1972: The one-story structure at the northern-central portion of the subject property is no longer labeled as a filling station. No other significant changes are noted on the map.

3.2.2 Local Records

Assessor's Office Records

This office reviewed City of Peekskill Assessor's Office property card records for the subject property on October 7, 2004.

321 Railroad Avenue (Lot 17)

Assessor's Office property card records indicate that a one-story, wood-frame diner was present on the parcel from 1947 until it was demolished in 1959, and that the currently existing one-story, concrete block structure was built in 1954 and has been utilized as a "gas station". The building is noted to be heated by gas heaters.

307 Railroad Avenue (Lot 18)

Property card records indicate that a three-story, wood-frame hotel and restaurant was constructed on the parcel prior to 1935 and was remodeled multiple times through the 1960s. The building was reported heated by oil. These records indicate that a demolition permit was issued inn 1993.

No other information pertinent to the environmental integrity of the subject property was present in these records. A summary of the readily available property ownership information is provided in Table 2.

Building Department Records

This office reviewed City of Peekskill Building Department records for the subject property on November 10, 2004.

321 Railroad Avenue (Lot 17)

An application for a plumbing permit (dated February 4, 1964) indicates that the one-story, concrete block structure was utilized as a gasoline station. A certificate of occupancy (#848, dated June 25, 1973) indicates that the building was utilized as an "auto repair garage – no paint spraying".

307 Railroad Avenue (Lot 18)

A permit (#696, dated June 1, 1993) was present for the demolition of an on-site restaurant.

No information regarding on-site petroleum bulk storage or other documents pertinent to the environmental integrity of the subject property were present in Building Department records provided for review.

Local Agency Interviews

A request was made to the Westchester County Department of Health (WCDOH) for records regarding the subject property. No response from this agency has been received by this office as of the date of this Combined Phase I & II ESA.

3.2.3 Subject Property Representative Information

Pertinent information regarding the subject property was provided to this office by Lorraine Landau, owner of the subject property. According to Ms. Landau, no past, threatened, or pending environmental liens, violations, governmental notifications, lawsuits, administrative proceedings, or documents relevant to the environmental condition of the property are known to exist. Ms. Landau had no specific knowledge or experience, regarding previous ownership or uses, that was relevant to identifying recognized environmental conditions.

When queried about the potential presence and/or usage of petroleum products or hazardous substances on the subject property, Ms. Landau stated that prior to ESI's subsurface investigation, she had not been aware of the presence of the two on-site petroleum bulk storage tanks, and that she had no specific knowledge regarding the presence or absence of hazardous materials.

Pertinent information provided by Ms. Landau is also provided in relevant sections of this Phase I ESA, where appropriate.

3.3 Review of Federal and State Agency Records

3.3.1 Methodology

Federal and state computer databases and printed records were reviewed for documentation of potential liabilities relevant to the subject property. Records reviewed and corresponding search distances are consistent with, or exceed, the requirements set forth by ASTM.

The following ASTM databases were searched at their specified search distances, consistent with ASTM protocol:

USEPA National Priority List (1.0 mile)
USEPA CERCLIS List (0.5 mile)
USEPA CERCLIS NFRAP List (subject/adjoining properties)
USEPA RCRIS Hazardous Waste Generators List (subject/adjoining properties)
USEPA RCRIS CORRACTS Hazardous Waste Facilities List (1.0 mile)
USEPA RCRIS non-CORRACTS Hazardous Waste TSD Facilities List (1.0 mile)
USEPA Emergency Response Notification System (subject property)
NYSDEC Registry of Inactive Hazardous Waste Disposal Sites (IHWDS) (1.0 mile)
NYSDEC List of Sites under Investigation for IHWDS Registry (0.5 mile)
NYSDEC Leaking Underground Storage Tank (LUST) Records (0.25)*
NYSDEC Petroleum Bulk Storage Tank Records (subject/adjoining)
NYSDEC Chemical Bulk Storage Tank Records (subject/adjoining properties)
NYSDEC Registry of Active and Inactive Landfills (0.5 mile)

* *The search distance for this ASTM database has been reduced due to the high level of development of the area in which the subject property is located.*

The following databases not required by ASTM protocol were also reviewed:

USEPA RCRIS Hazardous Waste Transporters List (subject/adjoining properties)
NYSDEC Major Oil Storage Facilities (0.5 mile)
NYSDEC Petroleum and Chemical Spill Records (0.25 mile)
NYSDOH Basement Radon Readings (by County and Municipality)
USEPA and NYSDEC Wastewater Discharge Permits (subject/adjoining properties)
A copy of relevant portions of a database search conducted by Environmental FirstSearch Corporation for ESI is provided in Appendix D. Not all of the sites contained in the attached database search may be referenced in Section 3.3.2. Some sites may have been excluded based on either ASTM requirements, ESI's scope of services or professional opinion, and/or information obtained during the review of historic records and the site inspection. Sites or additional information not included in the database search may also be referenced based on ESI's knowledge of the subject property area.

3.3.2 Findings of Regulatory Records Review

Federal Hazardous Waste-Contaminated Sites

The subject property is not identified on the United States Environmental Protection Agency's (USEPA) National Priority (NPL) list of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions. These records indicate there are no NPL sites within 1.0 mile of the subject property.

The subject property is not listed on the USEPA's CERCLIS list which details all sites that are proposed to the NPL or are in the screening and assessment phase for possible proposal to the NPL. The CERCLIS list identifies no sites within 0.5 mile of the subject property.

The subject property is not listed on the USEPA's CERCLIS No Further Remedial Action Planned (NFRAP) list. This is a list of former CERCLIS sites that were delisted because no significant hazardous waste contamination was found or because the site has been remediated. The CERCLIS NFRAP list notes no sites that adjoin the subject property.

State Hazardous Waste Sites

The subject property is not listed with the NYSDEC as an inactive hazardous waste disposal (IHWD) site. According to a review of NYSDEC records, there are no NYSDEC IHWD sites located within 1.0 mile of the subject property.

The subject property is not on the NYSDEC's list of sites under investigation for inclusion on the IHWDS registry. This list indicates there are no such sites within 0.5 mile of the subject property.

Federal Hazardous Waste Handlers

The USEPA Resource Conservation and Recovery Information System (RCRIS) database details facilities that report treatment, storage or disposal of hazardous waste (TSD facilities) or generation or transportation of hazardous waste. Of these facilities, some have been notified by the USEPA to take corrective action with regard to their handling of hazardous waste, and they are thus classified as CORRACTS facilities.

CORRACTS AND/OR TSD FACILITIES

The subject property is not registered with the USEPA as a CORRACTS and/or TSD facility for hazardous waste or materials. These records identify three TSD facilities, all of which are on the CORRACTS list, within 1.0 mile of the subject property. Based on the distance of these sites from the subject property, impacts to the environmental integrity of the subject property are unlikely.

GENERATORS OR TRANSPORTERS (NON-CORRACTS)

The subject property is not registered with the USEPA as a generator or transporter of hazardous waste, as per a review of the RCRIS database. This database indicates that there are no generators or transporters of hazardous waste located on adjoining properties.

Landfills and Solid Waste Disposal Facilities

The NYSDEC's Facility Register does not list the subject property as an active or inactive landfill or solid waste disposal facility. No landfills or solid waste disposal facilities are located within 0.5 mile of the subject property according to this register.

Chemical Bulk Storage

A review of NYSDEC records indicates that the subject property is not registered with the NYSDEC as a chemical bulk storage (CBS) facility. Observations made during the site inspection did not indicate the presence of chemical bulk storage on the subject property. No adjoining properties are registered with the NYSDEC as CBS facilities.

Petroleum Bulk Storage

SUBJECT PROPERTY

The Westchester County Department of Health (WCDOH) is a designated administrator of the NYSDEC Petroleum Bulk Storage (PBS) program. PBS records kept by the WCDOH are publicly accessible under the Freedom of Information Law (FOIL).

SUBJECT PROPERTY

A request to review PBS records for the subject property was submitted to the WCDOH in October 2004 under the Freedom of Information Act. A response to this request has not yet been received by this office. According to a review of the last NYSDEC PBS database to include Westchester PBS facilities, the subject property is not registered as a PBS facility.

Two, inactive 550-gallon underground storage tanks (USTs), likely to have been associated with the former filling station, were identified during a geophysical survey of the area surrounding the on-site building (see Section 4.0). The property owner, Ms. Landau, stated that she had been unaware of the presence of these tanks prior to being notified of their existence by ESI personnel. The tanks appeared to have released petroleum into surrounding soils and a spill event (#0409835) has been reported to the NYSDEC (see the State Chemical and Petroleum Spill and Leaking Underground Storage Tank Events subsection, below). No other PBS tanks are located on the subject property.

Local Regulations

Westchester County Department of Health (WCDOH) regulations, effective June 23, 1998, apply to all properties with a combined storage capacity over 1,100 gallons (excluding tanks used for the storage of on-site heating fuel, as long as the capacity of such tanks is less than or equal to 1,100 gallons). Based on the likely storage capacity of the subject property (1,100 gallons) the subject property is not a "facility" as defined by WCDOH PBS regulations.

Federal Regulations

Federal PBS regulations specified in 40 CFR Part 280 require that all underground storage tanks greater than 110 gallons installed prior to December 22, 1988 be upgraded, closed, or replaced by December 22, 1998 unless they contained fuel oil for on-site heating. Given that the tanks may have been installed as early as 1954, the subject property is not likely to be in compliance with Part 208 regulations. Federal Regulations specified in 40 CFR Part 112 apply to all facilities storing greater than 42,000 gallons of petroleum product underground or 1,320 gallons aboveground. The property is not likely to be subject to Part 112 regulations.

ADJOINING PROPERTIES

According to a review of NYSDEC records, there are no PBS facilities adjoining the subject property. No overt evidence of PBS tanks was noted on adjoining properties during the site inspection.

Major Oil Storage Facilities (MOSFs)

The subject property is not listed with the NYSDEC as a major oil storage facility (MOSF). According to a review of NYSDEC records, there are no MOSFs located within 0.5 mile of the subject property.

Federal Chemical and Petroleum Spills

The USEPA Emergency Response Notification System (ERNS) database details initial reports of releases of oil and hazardous substances as reported to federal authorities. There are currently no chemical or petroleum spills on record for the subject property, according to a review of the USEPA ERNS database.

State Chemical and Petroleum Spill and Leaking Underground Storage Tank Events

Fieldwork observations and laboratory data generated during the course of the subsurface investigation chronicled in this Combined Phase I & II ESA (see Section 4.0) support the conclusion that a release has occurred from on-site PBS tanks. Based on this finding, ESI reported a spill event (#0409835) to the NYSDEC on December 3, 2004. This active spill event has not yet been investigated by the NYSDEC or WCDOH. A review of the NYSDEC spill database (maintained since 1986) indicates that no other spill events are known to have occurred on the subject property, and that 17 other spill events are known to have occurred within 0.25 mile of the subject property. Three of these spills are classified as leaking underground storage tank (LUST) events. Based on a review of the materials spilled, intervening distances between the releases and the subject property, the presumed direction of groundwater flow and other information located in the records reviewed, it is unlikely that any other spill events have impacted the subject property.

Air Discharges

No NYSDEC permits for air discharges from the subject property are known to exist. No operations likely to require a NYSDEC air discharge permit were noted on the subject property during the site inspection.

Groundwater Usage

Observations made during the site inspection and information provided by the property representative indicate that the subject property obtains potable water from the municipal water system. No uses of groundwater were noted on the subject property during the site inspection.

Wastewater Discharges

No USEPA National or NYSDEC State Pollutant Discharge Elimination System (NPDES or SPDES) permit is known to exist for the subject property. No operations likely to require a NPDES or SPDES permit were noted on the subject property during the site inspection. According to observations made during the site inspection and information provided by the property representative, the subject property is connected to the municipal wastewater system. No adjoining properties are registered with the USEPA as NPDES or SPDES facilities.

Radon

Information on radon levels was obtained from New York State Department of Health (NYSDOH) documents. No regulatory standards for radon levels currently exist in New York State. The USEPA has established a guidance value (the level where mitigation measures may be appropriate) for radon concentrations of 4.0 or greater picoCuries/liter (pCi/l). A summary of available radon information for the subject property's vicinity is provided below in Table 3.

Table 3: Basement Radon Levels in Vicinity of Subject Property

All radon levels provided in picoCuries/liter (pCi/l)

NYSDOH Radon Information	Westchester County	City of Peekskill
Median Radon Level	1.7	2.3
Percent of Homes >4.0 pCi/l	15.4	18.9
Number of Homes Tested	2029	37

These median radon levels are below the USEPA's guidance value of 4.0 pCi/l and less than 20% of the homes tested in the subject property's vicinity had levels in excess of this guidance value. Therefore, it is unlikely that there are elevated radon levels on the subject property. No radon testing is known to have been conducted on the subject property.

3.4 Site Inspection

3.4.1 Protocol

The site inspection was conducted on October 7, 2004 in order to address any potential concerns raised during the investigation of the site's history (above, Section 3.2), the regulatory agency records review (above, Section 3.3) and to identify any additional indications of contamination from the use, storage, or disposal of hazardous or regulated materials. To the extent possible, site structures, vegetation, topography, surface waters, and other relevant site features were examined for any obvious evidence of existing or previous contamination or unusual patterns (e.g., vegetative stress, soil staining, surface water sheen, or the physical presence of contaminants), which would indicate that the environmental integrity had been or could be impacted.

Section 3.4.2 describes the physical characteristics of the subject property. Section 3.4.3 is divided into topics on specific environmental conditions or concerns, actual or potential, noted on the subject property during the site inspection. Section 3.4.4 describes the physical characteristics of adjoining properties as they concern the potential or actual environmental condition of the subject property.

A Fieldwork Map illustrating the general layout of the subject property and the locations of specific identified concerns discussed specifically in this Section of the Combined Phase I & II ESA is provided on Page 5. Photographs of the subject property are provided in Appendix A.

3.4.2 Physical Characteristics of Subject Property

3.4.2.1 Property

The subject property is an irregular-shaped, approximately 0.4 acre parcel, which has 200 feet of frontage on the eastern side of Railroad Avenue, and extends approximately 125 feet to the east. A 25' by 28', one-story concrete-block building is located on the central-northern portion of the property. The remainder of the parcel contains a gravel commuter parking lot, with the exception of a small, sloped area to the southeast, which is covered by vegetation. Property lines are approximately marked by concrete and stone retaining walls to the east, by a low concrete wall to the south, and by the exterior wall of the adjoining delicatessen to the north. The western property line along Railroad Avenue is not marked.

3.4.2.2 Structures

The existing on-site structure was built in 1954 for use as an automotive repair facility associated with a filling station. The building was subsequently remodeled and divided into two commercial spaces, which are currently occupied by "Ben's Taxi Service" and "His and Hers Cleaners" (a laundry drop-off/pick-up facility). No evidence of any equipment formerly associated with automotive repair activities (lifts, etc.) was noted during the site inspection.

Potable Water Supply

According to available information, the subject property is serviced by the municipal water system. No water supply wells were noted on the subject property during the site inspection and no on-site uses of groundwater are known to exist for the subject property.

Sewage Disposal System

According to available information, the on-site structure is connected to the City of Peekskill municipal sewer system.

Heating/Cooling

The on-site structure is heated with hot air generated by individual gas heaters, and a small window air conditioning unit is used to cool the structure.

3.4.3 Specific On-Site Environmental Conditions

Debris Areas

The remains of concrete foundation slabs (portions of which still contain attached ceramic floor tiles) are located on the southern portion of the subject property, and debris consisting of pieces of broken masonry and scattered household trash was observed at the southeastern portion of the subject property. No other significant areas of debris were observed during the site inspection.

Petroleum Storage

Two, inactive 550-gallon USTs are located to the south of the on-site structure. These tanks are likely to have stored gasoline and to have serviced a fuel-pump island formerly located to the west of the building. Observations made during the subsurface investigation (see Section 4.0) indicate that the tanks are likely to currently contain only standing water, but have previously released petroleum products into surrounding soils. Two fill-ports were observed on the ground directly over the centers of the tanks. No staining was noted on or near the fill-ports. No other indications of underground petroleum bulk storage tanks, aboveground tanks, or small quantity containers of petroleum products, were noted on the subject property.

Chemical Storage

No small quantities of chemicals or aboveground chemical bulk storage tanks were noted on the subject property during the site inspection. No indications of underground chemical bulk storage tanks (e.g., fill ports or vent pipes) were noted on the subject property during the site inspection.

Asbestos-Containing Materials

Asbestos-containing materials (ACMs) are those materials that are known to contain over 1% of any type of asbestos. The presence or absence of asbestos within a material can only be determined through the physical analysis of material samples.

According to Ms. Landau, no asbestos survey of the subject property has been conducted; however, the date of construction of the on-site building (1954) suggest that asbestos-containing materials could potentially be present on the subject property. Suspect ACMs noted during the site inspection included dropped and stick-on acoustic ceiling tiles. Other building construction materials not readily observable during the site inspection (e.g., roofing) could also potentially contain asbestos.

Lead-Based Paint

The presence or absence of lead-based paint (paint containing 0.5% lead by weight) can only be determined through the material analysis of paint samples. However, as the manufacture of lead-based paint (LBP) is known to have been regulated since 1978, a building's date of construction is often used to help assess the likelihood that LBP was used during initial tenant space construction and/or subsequent maintenance work. The presence of deteriorated paint is indicative of a potential health risk in that paint dust and chips could be inhaled and/or ingested.

According to Ms. Landau, a lead-based paint survey of the subject property's structures has not been conducted. The date of construction of the on-site building (1954) indicates that LBP is likely to have been used; however, in the absence of a LBP survey, no definitive statement can be made by this office regarding the presence or absence of LBP on the subject property.

Paint in poor condition was noted on portions of the buildings exterior walls. All of the other painted surfaces in the areas inspected by this office were in generally good condition at the time of the site visit.

Floor Drains/Sumps/Conduits

No floor drains, sumps, or conduits to the subsurface were noted on the subject property during the site inspection.

Wastewater Discharges

No evidence of wastewater or other liquid discharges (including storm water) into drains, ditches, or streams on or adjacent to the property was observed during the site inspection.

Staining/Corrosion/Leaks

Petroleum staining was noted in soils encountered during the subsurface investigation (see Section 4.0). No other evidence of corrosion, leaks, or staining indicative of an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products onto the subject property was observed during the site inspection.

Topographic Irregularities

No overt topographic irregularities (e.g., sinkholes or berms) indicative of the presence of non-natural materials (including debris) in the subsurface were noted on the subject property during the site inspection.

Vegetative Features

No overt areas of stressed or dying vegetation indicative of the presence of contaminants in surface or subsurface soils were noted on the subject property during the site inspection.

Pits, Ponds, or Lagoons

No pits, ponds, or lagoons exhibiting evidence (e.g., discolored water, distressed vegetation, obvious wastewater discharge) of holding liquids or sludge containing hazardous substances or petroleum products were noted during the inspection.

Surface Waters

Based on observations made during the site inspection, no surface water bodies are located on the subject property.

Odors

Petroleum odors were noted in soils encountered during the subsurface investigation (see Section 4.0). No other unusual odors indicative of the presence of contamination were noted during the site inspection.

PCBs (Polychlorinated Biphenyls)

An inspection for the presence of equipment likely to contain PCBs was conducted by this office during the site inspection. PCBs were widely used in equipment such as transformers, capacitors, and hydraulic equipment until 1979 when the USEPA regulated their use in this capacity. No equipment likely to contain PCBs was noted on the subject property during the site inspection.

3.4.4 Observed Environmental Conditions on Adjoining Properties

Two utility company-owned pole-mounted transformers are located in close proximity to the subject property on the eastern side of Railroad Avenue. A cleanup of a release from these transformers would be the responsibility of the utility company. No staining indicative of a release was noted on the units, the pole, or on the ground around the base of the pole. No other overt conditions judged by this office to pose a threat to the environmental integrity of the subject property were noted on adjoining properties during the site inspection.

4.0 PHASE II INVESTIGATION

4.1 Areas of Concern

The work described in this section was performed to document potential environmental impacts resulting from the presence of petroleum bulk storage tanks and the historic use of the subject property as a filling station.

4.2 Summary of Services

The following services were conducted on November 20, 2004, by ESI and/or designated subcontractors, on selected portions of the subject property in order to address the areas of concern specified above:

- Conducted a ground penetrating radar (GPR) survey of the area surrounding the on-site structure (former automotive repair facility) to document the presence or absence of underground PBS tanks and associated piping networks;
- Extended eight soil borings on the Site to a maximum depth of approximately 12' feet below grade in the vicinity of two identified USTs, a former fuel-pump island, and likely down-gradient areas; and,
- Documented the on-site presence or absence of contamination through sampling and laboratory analysis of soil samples for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals.

The remainder of this Combined Phase I & II ESA details the fieldwork conducted by ESI on the Site (Section 4.3), documents the results of laboratory analysis of samples (Section 4.4), and presents ESI's conclusions and recommendations (Section 5.0). Based on observations of petroleum contamination and laboratory data documenting elevated concentrations of petroleum products, ESI reported a spill event to the NYSDEC (#0409835) on December 3, 2004.

4.3 Fieldwork Methodology

4.3.1 Site Preparation Services

Prior to the initiation of fieldwork, a request for a complete utility markout of the subject property was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured, and a field check of the utility markout was conducted prior to the extension of test pits.

4.3.2 Ground Penetrating Radar Survey

A GPR survey of the area surrounding the on-site structure was conducted by personnel from Enviroprobe Service, Inc. The locations of two 550-gallon USTs, a former fuel-pump island, and buried piping between the tanks and the fuel-pump island, were field marked, based on direct instrument readings. The USTs were located approximately 15 feet south of the building and were lying in a east/west orientation. The Enviroprobe field technician estimated that the tops of the tanks were located from 2 to 3 feet beneath the surface. The former fuel-pump island was estimated to have been located approximately 15' west of the building. No other tanks were identified in the vicinity of the building during the completion of the GPR survey. A Fieldwork Map indicating tank and boring locations, and associated selected site features, is provided on page 5 of this Combined Phase I & II ESA.

4.3.3 Extension of Soil Borings

Enviroprobe extended eight soil borings on the Site under the direct supervision of ESI personnel. These soil borings were extended in the immediate vicinity of the tanks (GP-1, GP-2, and GP-3), upgradient of the tanks (GP-4), downgradient of the tanks (GP-5 and GP-8), and near the former fuel-pump island (GP-6 and GP-7). All soil borings were extended using a truck-mounted Geoprobe© direct-push coring device equipped with disposable acetate sleeves (used to prevent the cross contamination of soil samples). Sampling was conducted at each boring location at four-foot intervals to a maximum depth of 12' below grade or until refusal was reached. The sampling spoon was decontaminated prior to the initiation of fieldwork and after the collection of each sample following established NYSDEC protocols.

A MiniRAE 2000 (Model PGM 7600) photo-ionization detector (PID) was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene.

An assessment of subsurface soil characteristics, including soil type, the presence of foreign materials, field indications of contamination (e.g., unusual coloration patterns, or odors), and instrument indications of contamination (i.e., PID readings) was made by ESI personnel during the extension of each soil boring. ESI personnel maintained independent field logs documenting physical characteristics, PID readings, and any field indications of contamination for all encountered material at each boring location. Relevant information from ESI logs for each boring location is summarized in Table 4, below.

Subsurface soils encountered at the Site during the extension of the soil borings generally consisted of dark, variable texture sands (likely to be fill materials). Groundwater (as evidenced by very moist to saturated soil) was encountered at 6 to 8' bsg during the extension of the soil borings.

4.3.3 Sample Collection

Samples of soil material were collected from each of the soil borings where appropriate and notations were made regarding the sampled material's physical characteristics. All samples were obtained in a manner consistent with NYSDEC protocols. Decontaminated stainless steel trowels and dedicated gloves were used at each sample location to place the material into jars pre-cleaned at the laboratory. Prior to the collection of each material sample, the sample collection instrument was decontaminated to avoid cross-contamination between samples.

All sample containers were placed in a cooler immediately after sample collection and were maintained at cool temperatures prior to transport to the laboratory. The soil samples were transported the following day via courier to York Analytical Laboratories, Inc., a New York State Department of Health-certified laboratory (ELAP Certification Number 10854) for chemical analyses. Appropriate chain-of-custody procedures were followed.

Submission of samples for laboratory analysis was based on observations made by ESI personnel during the extension of the soil borings, including the presence or absence of elevated PID readings, unusual odors, discoloration, or, any other unusual patterns. A sufficient number of samples were submitted for analysis to provide a general screening of soils located near, and downgradient of, the USTs and near the former location of the fuel-pump island.

Table 4: Fieldwork Observations

ID	Location[1]	Depth	Soil Characteristics	PID Reading	Field Observations
GP-1	22' south 7' east	(0-4')	Medium to dark brown, fine to coarse SAND	0.0 ppm	No evidence of contamination
		(4-8')	Medium to dark brown, fine to coarse SAND	3,000 ppm	Moist to saturated, dark staining with free product, petroleum odor
		(8-12')	Medium to dark brown, fine to coarse SAND	241 ppm	Saturated, dark staining with free product, petroleum odor
GP-2	22' south 20' east	(0-4')	Medium to dark brown, fine to coarse SAND	0.0 ppm	No evidence of contamination
		(4-8')	No recovery		
GP-3	19' south 20' east	(0-4')	Medium to dark brown, fine to coarse SAND	0.0 ppm	No evidence of contamination
		(4-8')	No recovery		
		(8-12')	Fine silty CLAY	425 ppm	Saturated, no staining or odor
GP-4	22' south 39' east	(0-4')	Medium to dark brown, fine to coarse SAND	0.0 ppm	No evidence of contamination
		(4-8')	Medium to dark brown, fine SAND	0.0 ppm	Moist soil, no evidence of contamination
GP-5	43' south	(0-4')	Medium to dark brown, fine to coarse SAND	0.0 ppm	No evidence of contamination
		(4-8')	Medium to dark brown, fine to coarse SAND	0.0 ppm	Moist soil, no evidence of contamination
		(8-12')	Dark brown to black, medium to coarse SAND and GRAVEL	2,037 ppm	Saturated, staining, naphthalene odor
GP-6	46' north 13' west	(0-4')	Brown, medium SAND	324 ppm	No evidence of contamination
		(4-8')	Dark brown, medium SAND	252 ppm	Moist soil, no evidence of contamination
		(8-12')	Dark brown, medium SAND	145 ppm	Saturated, no staining or odor
GP-7	1' north 14' west	(0-4')	Brown, medium SAND	0.0 ppm	Moist, no evidence of contamination
		(4-8')	Dark brown/black, medium SAND	0.0 ppm	Moist, some staining, petroleum odor
		(8-12')	Dark brown/black, medium SAND	3,000 ppm	Saturated, dark staining with free product, petroleum odor
GP-8	30' south 23' west	(0-4')	Light-brown, medium SAND, with gravel	0.0 ppm	No evidence of contamination
		(4-8')	Dark brown, medium SAND	0.0 ppm	Moist soil, no evidence of contamination
		(8-12')	Dark brown/black, medium SAND	2,100 ppm	Saturated, no staining or odor

Notes:
1 All locations measured from southwestern corner of on-site structure.

4.4 Laboratory Analysis

4.4.1 Guidance Levels

Guidance Levels

The term "guidance level," as defined in this Combined Phase I & II ESA, refers to the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting guidance levels is to assess the integrity of on-site soils relative to conditions which are likely to present a threat to public health or the environment, given the existing and probable future uses of the site. On-site soils with contaminant levels exceeding these guidance levels are considered more likely to warrant remediation. No independent risk assessment was performed as part of this investigation.

The guidance levels identified in this Combined Phase I & II ESA for petroleum hydrocarbons, PCBs, and metals in soils are based on "recommended cleanup objectives" contained in the NYSDEC's Technical and Administrative Guidance Memorandum #4046 (TAGM), dated January 24, 1994, as modified by subsequent NYSDEC memoranda. All data presented in this Combined Phase I & II ESA have been analyzed in accordance with applicable TAGM standards and all detected compounds with their respective guidance levels are provided in the data summary tables in Appendix E.

Background Levels

The term "background level", as defined in this Combined Phase I & II ESA, is the concentration of a particular metal that is known to naturally occur in soils located in the eastern United States. The overall objective of setting background levels for metals is to assess the concentrations of metals in on-site soils relative to those that are naturally occurring. On-site soils with metal concentrations exceeding these background levels are considered more likely to have been affected by anthropogenic contributions. Background levels for metals are based on the NYSDEC's TAGM. Refined petroleum hydrocarbons and PCBs are not naturally occurring; therefore, no discussion of background levels for these compounds is appropriate.

4.4.2 Laboratory Analysis and Discussion of Findings

A summary of the results of the laboratory analyses conducted on samples GP-1 through GP-8 is provided below. Analyte concentrations are reported in parts per billion, ppb (μg/kg) or in parts per million, ppm (mg/kg) as appropriate. A complete copy of the Laboratory Report is included as Appendix F. Recommendations regarding laboratory data are located in Section 5.0.

VOCs

Soil samples collected at GP-1 (4 to 12'), GP-3 (8 to 12'), GP-4 (4 to 8'), GP-5 (4 to 12'), GP-6 (8 to 12'), GP-7 (0 to 12'), and GP-8 (4 to 8') were submitted for analysis of VOCs using USEPA Method 8021 plus MTBE. BTEX (chemicals associated with gasoline products: benzene, toluene, ethylbenzene, and xylenes) was detected at elevated concentrations at GP-1, located immediately downgradient of the USTs, and at GP-7, located near the former fuel-pump island: benzene (140 ppb, guidance level of 60 ppb) was detected in sample GP-1 (4-8') and xylenes (peak concentration of 1,600 ppb, guidance level of 1,200 ppb) were detected in samples GP-1 (4-8') and GP-7 (4-8'). BTEX and other related VOCs were detected at concentrations below guidance levels in samples GP-3 (8-12'), GP-5 (4-8' and 8-12'), GP-7 (0-4', 4-8', and 8-12'), and GP-8 (4-8'). No VOCs were detected in samples GP-1 (8-12'), or at GP-4 (4-8') and GP-6 (8-12), located (respectively) upgradient of the USTs and north of the former fuel-pump island.

No MTBE or halogenated hydrocarbons were detected in any soil sample submitted for analysis; elevated minimum laboratory detection limits of 200 ppb for sample GP-5 (8-12') could, however, be potentially masking the presence of elevated concentrations of benzene, MTBE, or several of the chlorinated compounds, which have low guidance levels.

PAHs

Soil samples collected at GP-1 (4 to 12'), GP-5 (4 to 12'), GP-7 (4 to 12'), and GP-8 (4 to 12') were submitted for analysis of PAHs using USEPA Method 8270. Significantly elevated concentrations of PAHs were detected in the sample GP-5 (8-12'), e.g., 31,000 ppb benzo[a]anthracene (guidance level of 224 ppb), 24,000 ppb chrysene (guidance level of 400 ppb). Low level exceedences of several of the PAH compounds that have very low guidance levels were detected at GP-7 (4-8') and GP-8 (4-8'), e.g. benzo[a]anthracene was detected at a peak concentration of 690 ppb. Low to very low levels of several PAHs were detected in samples GP-1 (4-8' and 8-12'), GP-5 (4-8'), GP-7 (8-12''), and GP-8 (8-12').

Metals

Soil samples collected from the 0-4' depth at all eight sampling locations were submitted for analysis of total weight lead, a metal commonly associated with gasoline manufactured between 1923 and 1986. Lead concentrations ranged from 31.3 to 173 ppm (detected at GP-8), with an average concentration of 74.3 ppm. These values are well within the 200 to 500 ppm background levels typically encountered in urban and well developed suburban settings. Soil samples GP-1 (4-8') and GP-1 (8-12') were also analyzed for total weight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Slightly elevated concentrations of mercury (0.27 ppm, guidance level of 0.1 ppm) and chromium (14.5 ppm, guidance level of 10 ppm) were detected in the 4-8' sample, and slightly elevated concentrations of cadmium (2.36 ppm, guidance level of 1 ppm) and chromium (14.8 ppm) were detected in the in the 8-12' sample. All other metals were detected at concentrations below guidance levels (no selenium or silver was detected in either sample and mercury was not detected in the 8-12' sample).

PCBs

Soil samples GP-1 (4-8') and GP-1 (8-12') were submitted for laboratory analysis of PCBs. No PCBs were detected in either sample.

Discussion of Results

Elevated concentrations of VOCs and PAHs were detected at sampling locations GP-1, GP-5 and GP-7, areas exhibiting significant field evidence of petroleum contamination. Low levels of petroleum compounds (specifically BTEX and related chemicals) were also detected in samples collected near, or downgradient of, the abandoned on-site tanks. No VOCs were detected upgradient of the tanks (GP-4) or to the north of the former fuel-pump island (GP-6). These findings support the conclusion that on-site soils have been contaminated by releases of petroleum products from the USTs and possibly from the former fuel-pump island. Data indicate that these releases are unlikely to have contained significant quantities of metals or PCBs. The presence of significant contaminant concentrations in soils located at or near the water table suggests that on-site groundwater resources may have been similarly impacted, and that petroleum contamination originating on the subject property may have migrated off-site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A Phase I Environmental Site Assessment (ESA) has been performed in conformance with the scope and limitations of ASTM Practice E 1527-00 on the approximately 0.4-acre property and structure located at located at 307 and 321 Railroad Avenue, City of Peekskill, Westchester County, New York, as described in Section 2.0, above. In addition to the ESA, a limited subsurface investigation of specified portions of the subject property was conducted in order to further investigate on-site environmental conditions. This Combined Phase I and Phase II Environmental Site Assessment (Combined Phase I & II ESA) has revealed no evidence of potential recognized environmental conditions in connection with the property with the exception of the items detailed below. With respect to these conditions, the following recommendations (in **bold**) are made. Cost estimates for proposed investigations and/or remedial actions are provided in *italics* where appropriate.

1. Information obtained during a review of historic maps and municipal records indicates that multiple structures have been present on the subject property from prior to 1900 until the current day, including a former three-story building utilized at one time or another as a saloon, restaurant, and/or hotel, and the existing concrete-block building, which was originally built and used as an automotive repair facility and filling station. Impacts resulting the presence of on-site tanks and fuel pumps are discussed in Paragraph 2, below. Impacts from other historic uses of the property are likely to be minimal and to be restricted to the potential presence of buried debris generated from the demolition of former on-site structures. The property is not likely to have been used for industrial purposes.

   No further investigation of historic records is recommended (see also Paragraph 2, below).

2. A ground penetrating radar (GPR) survey identified two, 550-gallon underground storage tanks (USTs) and a former fuel-pump island associated with the historic use of the property as a filling station. No other significant subsurface features were identified during the GPR survey. It is not known at this time what products were stored in the USTs, but it is reasonable to assume that the tanks were designed to contain gasoline or diesel fuel, and may have contained waste oil at some point. The tanks were partially filled with water, suggesting that they are not in sound condition.

   Field evidence of significant contamination, including the presence of free product, was observed in several borings located near and immediately downgradient of the USTs. Overtly impacted soils were observed to extend into the saturated zone, suggesting a possible impact to on-site groundwater resources. Laboratory analysis confirms the presence of elevated concentrations of petroleum products in soil samples collected from areas exhibiting evidence of free product. At a minimum, low levels of petroleum constituents have been detected in all downgradient sampling locations. No PCBs or significant quantities of metals were detected in subsurface samples collected from GP-1, and lead concentrations in surface soils are within background levels.

   Laboratory results support the conclusion that on-site subsurface soils have been contaminated by releases of petroleum products from the USTs and possibly from the former fuel-pump island. Based on these findings, ESI reported a spill event to the NYSDEC (#0409835) on December 3, 2004. Laboratory data generated to date are insufficient to fully define the horizontal and vertical extent of petroleum contamination. Current data suggest that significant on-site petroleum contamination may be restricted to areas near, and to the west (downgradient) of, the USTs. It is not known if impacts extend laterally to off-site soils, or if contamination extends significantly below the groundwater table. It is likely that the NYSDEC will require additional investigative work, and the removal of the tanks and contaminated soil, in order to close the spill file. The volume of soils likely to warrant removal is unknown at this time (preliminary data suggest a volume of 300 to 750 cubic yards). Dewatering activities may be required in conjunction with soil removal; contaminated water flowing back into excavated areas will require removal or on-site treatment.

It is recommended that additional soil borings be extended to more fully delineate the extent of documented on-site contamination. Consideration should be given to the installation of temporary monitoring wells to provide a preliminary assessment of on-site groundwater quality. The NYSDEC and/or Westchester County Department of Health (WCDOH) should review any future investigative work and/or remedial actions prior to implementation in order to facilitate spill file closure and site remediation activities.

All on-site storage tanks and petroleum-contaminated soils should be excavated and removed from the subject property. Tank removal should be completed in conjunction with soil remediation activities in order to minimize remediation costs and to facilitate excavation of all soils warranting removal.

Estimated cost of tank removal: $10,000
Estimated cost of soil remediation: $ 50,000 - $75,000

Field evidence suggests that local groundwater could potentially be impacted. The removal of the USTs and associated contaminated soils will eliminate the most likely source that could potentially contribute to the degradation of groundwater quality. Given the absence of any uses of local groundwater, potential groundwater remediation required by regulatory authorities (i.e. the NYSDEC and/or WCDOH) is likely to be limited to removal (or on-site treatment) of any contaminated water flowing back into excavated areas. The WCDOH may require post-remediation groundwater monitoring to document groundwater quality.

It is recommended that Groundwater monitoring (if required by the WCDOH and/or NYSDEC) should be conducted in order to facilitate site remediation activities and the closure of the active NYSDEC spill file, and to confirm the effectiveness of soil remediation activities.

Estimated cost of groundwater investigation: $ 10,000 - $15,000

3. The subject property is not in compliance with federal PBS regulations specified in 40 CFR Part 280, which requires the upgrade, closure, or replacement of regulated underground storage tanks. It is anticipated that all on-site PBS tanks will be removed during remedial activities.

   No further investigation is recommended.

4. Debris consisting of foundation remains, broken masonry, and household trash is present on the subject property. Subsurface debris from demolished structures may also be present on the subject property. Any such subsurface debris could potentially contain asbestos-containing materials (ACMs), lead-based paint (LBP), or other regulated materials.

   It is recommended that any subsurface debris encountered during future on-site development activities be properly managed, including, as necessary, sampling and analysis of materials for asbestos and leachable concentrations of lead. All debris materials should be segregated into appropriate waste streams (i.e., those which can be disposed of as solid waste and those which require special handling) prior to disposal.

5. ACMs and/or LBP could potentially be present at the on-site structure.

   No further investigation is recommended. Suspect materials encountered during maintenance or site development activities should be tested for asbestos or lead, or, in the absence of analytical data, be treated as though it contained asbestos or lead.

6.0 SOURCES OF INFORMATION

6.1 Maps and Documents

Environmental FirstSearch Report, FirstSearch Technology Corporation, October 8, 2004.

New York State Department of Environmental Conservation Freshwater Wetlands Map of the Peekskill, New York Quadrangle, dated 1973.

Sanborn Fire Insurance Company Maps dated 1887, 1895, 1900, 1905, 1911, 1923, 1942, 1950, 1958, 1964, 1971, and 1972.

United States Department of Agriculture Soil Conservation Service's Soil Survey for Putnam and Westchester Counties, dated September 1994.

United States Department of the Interior National Wetlands Inventory Map of the Peekskill, New York Quadrangle, dated March 1984.

United States Geological Survey Topographic Map of the Peekskill, New York Quadrangle, dated 1957, (photorevised 1981).

5.2 Local Agency Records

City of Peekskill Assessor's Office records, reviewed October 7, 2004.

City of Peekskill Building Department records, reviewed November 10, 2004.

5.3 Communications

Lorraine Landau, property owner, various dates, December 2004.