

**ASTM PHASE I
ENVIRONMENTAL SITE ASSESSMENT**

Pepperell Paper Mill
128 Main Street
Pepperell, Massachusetts

CEA File No. 5086-02

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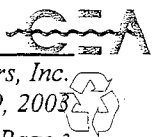
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1.0 INTRODUCTION

Corporate Environmental Advisors, Inc. (CEA) has conducted a Phase I Environmental Site Assessment (ESA) for the Pepperell Paper Mill property located at 128 Main Street in Pepperell, Massachusetts (the Site). CEA conducted the ESA in conformance with American Society for Testing and Materials (ASTM) Standard Practice E 1527-00 ("Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process").

1.1 Purpose

The purpose of the ESA is to identify the presence, release, or threat of release, of any hazardous substance or petroleum products (OHM) affecting the Site, including the identification of any Recognized Environmental Conditions¹ as defined in ASTM Standard Practice E1527-00, to a degree sufficient for asserting the innocent landowner defense to CERCLA liability.

1.2 Site Identification

The Site is located at 128 Main Street in Pepperell, Massachusetts. A Site locus map is included as **Figure 1**. The Site consists of a dam across the Nashua River along the southern portion of Main Street, a former paper mill facility complex with multiple buildings and structures located south of the dam on the western side of the river, a hydroelectric plant located on the eastern side of the river, a garage located on the southern side of Main Street adjacent to the dam, and a cogeneration plant located on the northern side of the Site.

The Site covers approximately 19 acres of land, and is composed of five parcels of land, on both the east and west sides of the Nashua River. The Town of Pepperell Assessor's Map 26 identifies the paper mill area as Lot 32 and a Cogeneration plant as Lot 206. The Hydroelectric Plant is located on Map 26, Lot 31. The garage is located on Map 26, Lot 76. Maps 23 (adjoining map) and 26 have been superimposed on **Figure 2**. **Appendix A** includes the field cards for these sites.

2.0 RECORDS REVIEW

CEA conducted a search of federal and state environmental databases on December 5, 2002 through FirstSearch Technology Corporation. **Appendix B** presents the resulting Environmental FirstSearch™ Report. CEA based the database search on the "appropriate minimum search distance" set forth in ASTM E 1527-00.

CEA reviewed United States Geological Survey (USGS) topographical maps (**Figure 1**) and other available information, including visual observation, to ascertain relative topography and evaluate whether locations identified by the database search are topographically (and therefore potentially hydraulically) upgradient relative to the subject Site. The following sections

¹ ASTM E 1527-00 defines *recognized environmental conditions* as "the presence or likely presence of any OHM at the property under conditions that indicate an existing release, past release, or material threat of release of OHM into structures at the property or into the ground, groundwater, or surface water at the property."

summarize pertinent portions of the database search regarding recognized environmental conditions at or near the Site.

2.1 Federal Records

CEA's database search revealed the following federal environmental information:

2.1.1 NPL (Superfund) Sites (1.0-mile radius)

The database search did not identify the Site or any other such NPL sites within 1.0-mile of the subject Site.

2.1.2 CERCLIS Listings (0.5-mile radius)

The database search did not identify the Site as a CERCLIS facility or any other such facilities within 0.5-miles.

2.1.3 RCRIS Facilities (1.0-mile radius)

The database search did not identify any RCRA facilities undergoing RCRA corrective active (CORRACTS) within 1.0-mile of the Site, no non-CORRACTS transfer, storage disposal facilities (TSDF) within 0.5-miles of the Site, and two registered hazardous waste generator facilities within 0.25-miles of the Site. These two RCRA Generators are listed in the table below.

Nearby RCRA Generator Facilities

Property Name & Address	EPA ID #	Distance from Site (miles) & Direction	Inferred Gradient from Site
Brooks Pharmacy 396 60-62 Groton St	MAR000503680	0.24 NE	Cross-gradient
Grants Cleaners 7 Railroad St	MAD982194243	0.24 NE	Cross-gradient

Based on their inferred hydraulic location and distance relative to the subject Site, these RCRIS facilities could potentially pose a material threat of release of OHM to the Site, if a significant release occurred.

2.1.4 Summary of Federal Site Listings

No properties were identified which could pose a threat of release of OHM to the Site.

2.2 State Records

CEA's database search revealed the following state environmental sites:

2.2.1 Emergency Response Notification Site

A release of 90 gallons of oil on August 11, 1998, at the facility is listed on the database search under the Emergency Response Notification Site (ERNS) listing. The date of this reported oil release and the quantity of oil reported spilled is very similar to an oil release listed on the state spills list, discussed below. The date of the oil release on the state spill list is August 12, 1998, and the quantity was reported as 110 gallons of lubricating oil.



CEA believes that the separate listings on two subsequent days may reflect follow-on notifications to DEP for the same oil release.

2.2.2 Sites List (1.0-mile radius)

The database search identified five state-listed OHM disposal sites within 1.0-mile of the subject Site, one of which is located within 0.5-mile. This one site is listed as Cumberland #2038 (EPA ID# 2-0011154), located at 121 Main Street, which is 0.07 miles southwest of the Site (cross-gradient). The site's status is listed as Tier 2. **Appendix B** includes database search results for all state-listed hazardous disposal waste sites within 1.0- mile of the subject Site.

2.2.2 Landfill List (0.5-mile radius)

The database search identified no state-listed solid waste landfill facilities within 0.5-mile of the Site.

2.2.3 DEP Spills List (0.5 mile radius)

The database search identified ten state-listed OHM spills (releases) at five properties within 0.5-miles of the Site. Four spills occurred at the Cumberland Farms 0.07 miles southwest of the Site, and three are listed as having occurred at the Site (property address at 128 Main Street). One State Spill Site is listed as the James River Paper Mill at 324 Main Street in Pepperell with a Waiver Site Number of 2-000447. This listing is for the Site. The four State Spill Site listings for the Site are shown below.

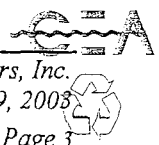
State-Listed Spill Sites

DEP ID	Status	Description	Date Closed
2-000447	NFA	Listed 10/15/88 Oil, PCBs, Metals, Chlorinated Solvents, VOCs	2/21/95
2-0010329	A-1 RAO	50 gallons of oil spilled from a transformer	7/20/1994
2-0010320	A-1 RAO	30 gallons of oil spilled from a transformer	7/27/1994
2-0012342	Two Hour	110 gallons of lubricating oil was released from a pipe	RTN not listed on DEP database

NFA – No Further Action

The Release Tracking Number (RTN), 2-0012342, for the oil release discussed under the ERNS listings does not appear on the DEP database. CEA believes that this may indicate that the release notification was retracted.

Appendix B includes database search results for state-listed OHM spills within 0.5-mile of the Site.



2.2.5 Registered UST List (Site and adjoining properties)

The database search identified one registered UST facility adjoining the Site. Cumberland Farms at 121 Main Street had three 8000-gallon USTs containing gasoline removed, and three 8,000-gallon USTs containing gasoline still in use.

2.2.6 Summary of State Listings

The search of state database listings identified oil spills at the Site under the ERNS listings and State Spill Site list. A listing on the State Spill Site List for the James River Paper Mill at 324 Main Street in Pepperell, Massachusetts having a Waiver Site Number of 2-000447, is also for the Site and documents the filing of a Waiver Completion Statement in February 1995. Environmental assessment and cleanup work conducted under this Waiver Site Number is further discussed in **Section 4.2** below.

2.2.7 DEP Website Information

The DEP Bureau of Waste Site Cleanup (BWSC) website was reviewed for information regarding DEP-listed sites. The Site is listed twice under DEP identification numbers 2-10329 and 2-10320 and once as the James River Paper Mill at 324 Main Street in Pepperell, Massachusetts having a Waiver Site Number of 2-000447.

2.3 Local Records

CEA visited the Town of Pepperell municipal offices on December 11, 2002, to research local information regarding registered storage tanks, licensed OHM storage, or other readily available information regarding recognized environmental conditions in the vicinity of the Site.

2.3.1 Board of Health

The Town of Pepperell Board of Health (BOH) informed CEA that the BOH files contain a Consent Order and Notice of Noncompliance for the Site dated May 5, 1999. These documents report violations associated with waste oil management practices that were observed during a December 10, 1999, DEP Site inspection. The following violations were identified in these documents:

- The company was registered as a Small Quantity Generator but accumulates enough waste oil to be considered a Large Quantity Generator.
- The company had one waste oil accumulation container which was open and not properly managed.
- The company had not posted a sign which could be read at its waste oil accumulation area.
- The Company did not have an impervious surface underlying its waste oil accumulation tank or containers.

CEA does not believe that these violations indicate releases of waste oil to the environment.

The BOH also indicated that their files have a record of an inspection by the DEP performed on June 15, 2001. No violations were reportedly identified at that time.



Copies of the Consent Order and Notice of Non-Compliance are included as **Appendix C**.

2.3.2 Zoning Department

The Town of Pepperell Zoning Office informed CEA that the Site is zoned as Industrial.

2.3.3 Fire Department

CEA reviewed available records for the Site at the the Pepperell Fire Department Office. The available records included:

An October 1989 report related to a spill of 2,000 gallons of sodium hydroxide solution into a containment dike located on the Cogeneration Plant portion of the Site. Reportedly some of the sodium hydroxide solution was released from the dike. The report documents initial cleanup actions. No further details of this release is available.

A Massachusetts Department of Public Safety application for inspection of plans for construction of a 150,000 gallon No. 2, fuel oil storage tank for the Cogen portion of the Site.

An April 28, 1993, daily log report, which includes entries related to approval for the removal of two 30,000 gallon No. 6 oil storage tanks and two, 500 gallon kerosene tanks from the Site, an entry on work on a sprinkler system at the Site, and an entry on a tour of the paper mill.

A February 9, 2000 letter and submittal from INDECK. This is the 1999 SARA 312 Tier II chemical inventory for the Cogen plant, which documents the storage and use of sulfuric acid, sodium hydroxide, and diesel /No.2 fuel oil at the Cogen portion of the Site.

A February 27, 2002 letter and submittal from Pepperell Paper Company, which is the SARA Tier II report for the paper mill portion of the Site, which documents the storage and use of various oils and chemical in the paper mill portion of the Site.

No other records of spills, releases, underground storage tank removals or fires at the Site were available for review.

Information obtained from Fire department files are included as **Appendix D**.

2.3.4 Building Department

The Pepperell Building Department supplied CEA with their files regarding the Pepperell Paper Mill and the Cogeneration plant (Cogen). The Cogen plant occupies the northern end of the Site.

The paper mill files included a Notice of Intent (NOI) submitted by the Pepperell Paper Mill in August 1996, regarding repair to the dam boards, removal of an electric tower, and installation of wooden poles. Also included in the file is a Notice of Responsibility



(NOR) submitted by the DEP to the James River Corporation (owner of the Site at the time) of releases of volatile organic compounds (VOCs), petroleum hydrocarbons, and PCBs. This NOR designates the Site as DEP ID number 2-0447. Pepperell Paper Mill later applies for, and receives a Waiver of Approvals from DEP. Site number 2-0447 is closed out as a Waiver Site Number.

The Cogen plant files included a letter to the Town of Pepperell complaining about the noise at the Cogen plant. Two letters were filed in 1989 and 1990. The Building Inspector filed inspection sheets of noise levels at different properties surrounding the Cogen plant in March 1990. This matter was settled in court, as a property owner for a property adjacent to the plant experienced cracked building foundations. Building Department reports are included as **Appendix E**.

2.3.5 Conservation Commission

The Pepperell Conservation Commission had several records regarding the Pepperell Paper Mill and Cogen plant. The records consisted primarily of paperwork regarding meetings and NOIs for work done at and around the plant, since the plant is located in a wetland area. No major violations were filed with the Pepperell Conservation Commission. Selected files are included in **Appendix F**.

3.0 PHYSICAL SETTING

3.1 Topography

The Site is at an approximate elevation of 56 meters (184 feet) above the National Geodetic Vertical Datum of 1929 according to the USGS Townsend, Massachusetts topographic quadrangle (**Figure 1**).

3.2 Hydrology

3.2.1 Surface Water & Wetlands

To the east of the paper mill is the Nashua River. Surface runoff from the Site is to the east (Nashua River).

3.2.2 Groundwater

Based upon topography and proximity of surface water bodies (i.e., tributaries, rivers, wetlands), CEA infers that groundwater in unconsolidated subsurface materials at and near the Site flows generally east. We based subsequent references to hydraulic location relative to the Site, specifically in Section 2.0, on our inferred overall northeasterly to easterly direction of groundwater flow.

3.2.3 Flood Zone

The Federal Emergency Management Agency Flood Insurance Rate Map for the vicinity indicates the majority of the Site is within the 500-year floodplain (Zone X), and portions of the Site are within the 100-year floodplain (Zone AE). A community flood insurance study has identified such zones to be areas of minimal hazard from the area's principal



source of flooding. However, severe, concentrated rainfall, coupled with inadequate local drainage systems, could flood buildings in this zone.

Mr. Lynch indicated the Site was flooded in the recent past to the point where much of the Site was underwater.

3.3 *Geology*

CEA did not observe any bedrock outcrops at or in the immediate vicinity of the Site. Bedrock is present beneath the Site, but CEA did not conduct a subsurface investigation to verify the depth.

The Bedrock Geologic Map of Massachusetts indicates that the bedrock formation underlying the Site is identified as a portion of the *Berwick Formation*. The Berwick Formation is composed of thin- to thick-bedded metamorphosed calcareous sandstone, siltstone, and minor muscovite schist (E-an Zen, 1983).

4.0 **SITE & VICINITY HISTORY**

4.1 *Standard Historical Sources*

CEA reviewed reasonably ascertainable information regarding historical uses of the Site and vicinity, including:

- Fire Insurance Maps,
- Assessor's Office.

4.2.1 *Fire Insurance Maps*

Since 1834, the Site has been occupied by a paper mill. The owners have changed, but the primary function of the Site has not.

According to a Haley & Aldrich Phase II Comprehensive Site Assessment Report (February 1995), the Sanborn fire insurance maps indicate that the facility was owned and operated by Fairchild's Paper Company (1892) and the Nashua River Paper Company (1903, 1912, 1922, and 1934). The St. Regis Paper Company bought the facility at a later point and operated it until 1971. James River – Pepperell, Inc. bought the plant in 1971 and operated it until 1993, when the facility was purchased by the Pepperell Paper Company.

4.2 *Previous Environmental Investigations*

CEA was provided copies of the following reports:

- Report on Phase I – Limited Site Investigation, James River Paper Mill, Pepperell, Massachusetts, DEP Waiver Site No. 2-0447, by Haley & Aldrich, Inc. (H & A) dated June 1992.



- Report on Release Abatement Measure Status Report, Pepperell Paper Mill, Pepperell, Massachusetts, DEP Waiver Site No. 2-0447, by Haley & Aldrich, Inc. (H & A), dated September 1994.
- Release Abatement Measure Completion Report, Pepperell Paper Mill, Pepperell, Massachusetts, DEP Waiver Site No. 2-0447, by Haley & Aldrich, Inc. (H & A), dated September 1994.
- Phase II – Comprehensive Site Assessment, Pepperell Paper Mill, Pepperell, Massachusetts, DEP Waiver Site No. 2-0447, by H & A, dated February 1995. (Volume I of II)
- Phase II – Comprehensive Site Assessment, Pepperell Paper Mill, Pepperell, Massachusetts, DEP Waiver Site No. 2-0447 by H & A, dated February 1995. Volume II of II Risk Characterization.

4.2.1 Phase I Report

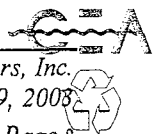
The June 1992 H & A Report on Phase I – Limited Site Investigation (Phase I Report) documented the results of environmental assessment activities conducted at the Site, which included a review of available records on historical Site uses and conditions, a review of other environmental assessment reports conducted on the Site, a Site visit, and a limited subsurface assessment.

According to the Phase I Report, other environmental assessments were conducted for the Site. Reports on these assessments were not provided to CEA. However, the results of these reports were summarized in the Phase I Report.

According to the Phase I Report, two environmental assessment reports (no title given) were prepared by Goldberg-Zoino & Associates, Inc. (GZA) dated November 1986 and April 1988. The assessments were conducted for the cogenerating (Cogen) plant currently located on the northern portion of the Site.

According to the Phase I Report, the GZA reports indicated the following:

- The mill was separated into to sections (Mill #1 and Mill #2) in the 1800s,
- Mill #1 was identified as being occupied by existing buildings #3, 4, and 5 and Mill #2 was occupied by current buildings # 19, 20, and 23,
- A wastewater treatment building was in operation in the northern portion of the Site,
- Floor drains and septic in buildings in this area were discharged on-site to leaching fields at that time,
- A canal system was in place throughout the building areas channeling wastewater from the buildings to the river. This canal system was filled in 1934,
- A boiler was used to heat the buildings in the area until about 1981,
- Two gasoline underground storage tanks (USTs) (one 500-gallon and one 1,000-gallon) were present and removed in 1988,
- A septic tank was installed near building #12 in 1965, and connected to the town sewer system. No leaching occurred from the septic tank,



- In 1985 a spill of between 250 and 400 gallons of #6 fuel oil occurred. Zecco cleaned the area and the DEP did not require any further response actions,
- In 1989, a caustic solution spill occurred in the Cogen plant of a bout 2,000 gallons, within a diked area, was cleaned and the DEP did not require any further response actions,
- In 1991 a spill occurred of caustic material from an AST within the diked area of the Cogen plant. Clean Harbors cleaned the area and AST, and the DEP did not require any further response actions,
- River sediment was observed during the assessment to contain a 20 to 30 foot wide black layer from a manhole at the top of the river bank to the river,
- Oil staining was observed and testing indicated total petroleum hydrocarbons (TPH) by IR, was as high as 23,000 mg/kg (ppm),
- No VOCs were detected in samples from the gasoline UST areas, and
- Waste oil was observed on the concrete surface in the fuel oil diked area, where two 30,000-gallon fuel oil aboveground storage tanks (ASTs) were located.

No other information was provided from these reports.

According to the Phase I Report, ENSR Consulting & Engineering (ENSR) prepared a Site assessment report dated February 1991. No information was provided regarding the results of this Site assessment. The Phase I Report states that no field exploration or chemical testing was conducted during the ENSR Site assessment.

The H & A Phase I Assessment included a subsurface assessment program that included sampling and analysis of soil, groundwater, sediment, and surface water at the Site. During the Phase I Assessment, six test borings were conducted using a hollow stem auger drill rig. Soil samples were collected using a split spoon sampler and were field screened using a portable gas chromatograph (GC). Selected soil samples were submitted for laboratory testing for parameters including VOCs, metals, polychlorinated biphenyls (PCBs), TPH oil and grease, and pH.

During the Phase I Assessment, the six test borings were completed as two-inch diameter, groundwater monitoring wells. Groundwater samples were collected, field screened using the GC and were submitted for laboratory analysis for TPH, VOCs, PCBs, and metals.

During the Phase I Assessment, 23 surface soil samples were also collected and field screened with the GC. Selected surface soil samples were submitted for laboratory testing for parameters including VOCs, metals, PCBs, TPH and pH.

During the Phase I Assessment, two river sediment and companion surface water samples were also collected and submitted for laboratory analysis for TPH, VOCs, PCBs, and metals.

During the Phase I Assessment, two effluent samples were collected from the wastewater treatment plant discharge and the Cogen facility discharge. The effluent samples were submitted for laboratory analysis for TPH, oil and grease, acid and base neutral

extractable compounds (ABNs), color, total settleable solids, total suspended solids, total biological oxygen demand, total organic carbon, and chemical oxygen demand.

The following is a summary of the results of laboratory analytical results:

Laboratory analysis of soil samples collected during the Phase I Assessment revealed the following:

- TPH levels in soil at concentrations ranging from 31 milligrams per kilogram (mg/kg) to 65,000 mg/kg,
- Oil and grease in soil at concentrations ranging from 59 mg/kg to 70,000 mg/kg,
- Elevated levels of metals in soil including copper and lead,
- Detectable levels of chlorinated solvents in soil (tetrachloroethylene (PCE) and trichloroethylene (TCE)),
- PCBs levels in soil,
- Soil pH levels ranging from 3.71 to 7.24, and
- Methylene chloride was detected in soil samples but was attributed to laboratory contamination.

Laboratory analysis of groundwater samples collected during the Phase I Assessment revealed the following:

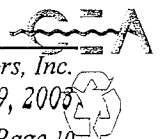
- TPH levels in groundwater at concentrations ranging from 2.8 mg/l to 8.3 mg/l,
- Oil and grease in groundwater at concentrations ranging from 3.8 mg/l to 10 mg/l,
- VOCs in groundwater with trace levels of toluene and TCE, and
- Metals including levels of antimony, arsenic, cadmium, nickel, selenium and zinc,

Laboratory analysis of sediment and surface water samples collected during the Phase I Assessment revealed the following:

- A TPH level in surface water at a concentration upstream of the Site at 2.2 mg/l,
- oil and grease in surface water at a concentration upstream of the Site at 1 mg/l,
- Metals in surface water, (arsenic and cadmium) at higher levels upstream of the Site,
- TPH levels in river sediment from 340 mg/kg to 460 mg/kg,
- A PCB level in river sediment of 0.17 mg/kg, and
- Metals in river sediment including levels of antimony, arsenic, beryllium, cadmium, lead, nickel, selenium, and zinc.

Laboratory analysis of effluent samples collected during the Phase I Assessment revealed the following:

- TPH at a level of 51 mg/l,
- Oil and grease at a level of 51 mg/l,



- Levels of ABNs including 2-methylnaphthalene, dibenzofuran, fluorene, phenanthrene and bis 2 ethylhexyl phthalate,
- Color at a level of 30,
- Total settleable solids at a level of 0.3,
- Total suspended solids at levels of 10 and 26 parts per million (ppm),
- Total biological oxygen demand at levels of 22 and 45 ppm,
- Total organic carbon at levels of 14 and 30 ppm, and
- Chemical oxygen demand at levels of 78 and 100 ppm.

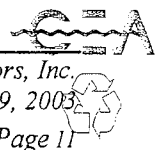
The Phase I report revealed that releases of oil and hazardous materials (OHM to soil and groundwater at the Site have occurred. CEA understands that the releases were reported to DEP and that DEP issued Site Number 2-0447, which later becomes a Waiver of Approvals Site.

4.2.2 RAM Status Report

The September 1994, H & A Report on Release Abatement Measure Status Report (RAM Status Report) describes soil removal activities conducted at the Site in two areas where the Phase I assessment revealed elevated levels of petroleum hydrocarbons in soil. The first area was near a manhole located on the southeastern portion of the Cogen facility Site where petroleum levels in a surface soil sample was tested and found to be at 29,000 mg/kg. The second area was near a transformer bank located on the eastern side of the Nashua River, at the hydroelectric plant, where a soil sample was tested and found to contain 65,000 mg/kg TPH.

The RAM Status Report also describes confirmatory soil sampling and analysis performed in both RAM areas following the soil removal. The confirmatory soil testing for the manhole area RAM revealed that the RAM was successful in reducing the TPH levels in soil to below the Upper Concentration Level (UCL) listed in the MCP. The confirmatory soil testing for the transformer bank area RAM revealed that the first soil removal effort was not successful in reducing the TPH levels in soil to below the UCL. A second soil removal effort was conducted and additional confirmatory soil sampling was conducted. The results of the confirmatory soil testing were not included in the RAM Status Report.

The RAM Status Report describes and documents the management of soil generated during the RAM. Soils excavated from the manhole area were shipped under Bill of Lading protocol to an asphalt batch recycling facility. Soils excavated from the transformer bank area were drummed (during the first soil removal effort) and shipped by vactor truck (during the second soil removal effort). The drummed and trucked soil was shipped as PCB contaminated waste under Hazardous Waste Manifest protocol to a licensed, hazardous waste disposal facility.



4.2.3 RAM Completion Report

The January 1995, H & A Release Abatement Measure Completion Report (RAM Completion Report) again documents soil removal activities conducted in the manhole area and the transformer bank area of the Site. The RAM Completion Report includes the laboratory results for the confirmatory soil testing following the second soil removal effort at the transformer bank area. The results of the confirmatory soil testing revealed that the second soil removal effort under the transformer bank RAM area was successful in reducing the TPH levels in soil to below the UCL. No further activities under the RAM were conducted.

4.2.4 Phase II – Comprehensive Site Assessment

The February 1995, H & A Phase II – Comprehensive Site Assessment (Phase II) Report (Volume I) documents the results of field investigation programs conducted at the Site to further assess release areas identified in the Phase I Assessment. The Phase II field investigation program included:

- A ground penetrating radar (GPR) survey conducted to verify the removal of two USTs,
- The advancement of test borings into overburden using hollow stem augers, and into bedrock using rock coring techniques,
- The installation of groundwater monitoring wells,
- The gauging of groundwater and river elevations, and
- Soil, sediment, groundwater, and effluent water sample collections and analysis.

The following is a summary of the results of the Phase II Assessment:

During the Phase II Assessment, the GPR survey did not identify signals suggesting the presence of USTs.

During the Phase II Assessment, nine test borings were drilled and completed as two-inch diameter, groundwater monitoring wells. Six of the test borings/groundwater monitoring wells were installed in the shallow overburden material. Three of the test borings/groundwater monitoring wells were installed in the bedrock. The Phase II Report documents two other shallow test-borings and groundwater monitoring wells identified as Phase I monitoring wells.

During the Phase II Assessment, groundwater and river elevation gauging data was used to determine the direction of groundwater flow, which was found in general to flow to the north-northeast.

During the Phase II Assessment, soil samples were collected during the test boring program. Ten selected soil samples were field screened using a GC and were submitted for laboratory testing for parameters including VOCs, metals, PCBs, TPH oil and grease, and pH.



Groundwater samples were collected from existing monitoring wells and from newly installed groundwater monitoring wells. Groundwater samples were submitted for laboratory analysis for TPH, oil and grease, VOCs, PCBs, and metals.

During the Phase II Assessment, three additional river sediment and surface water samples were collected in areas along the western side of the Nashua River.

During the Phase II Assessment, additional effluent samples were collected from the wastewater treatment plant and the Cogen plant discharge and from the drainage canal on the Site.

The results of the laboratory analysis of environmental samples collected during the Phase II Assessment revealed elevated levels of TPH, oil and grease, metals including copper, lead and zinc, and PCBs in soil. The results also revealed levels of TPH, low levels of metals, and low levels of VOCs in groundwater.

The results of the laboratory analysis for the sediment samples collected during the Phase II Assessment again revealed levels of TPH, PCBs and metals in sediment.

The results of the laboratory analysis for the surface water samples collected during the Phase II Assessment revealed levels of metals (antimony, copper zinc) in surface water.

The results of the laboratory analysis for the effluent and drainage channel water samples collected during the Phase II Assessment revealed levels of metals (antimony, copper, lead, zinc), and PCBs in these water samples.

The results of the Phase I and Phase II environmental sampling and analysis were used in a Risk Assessment, which was prepared a Volume II of the Phase II Report and which is discussed below:

4.2.5 Phase II Risk Assessment

The February 1995, H & A Phase II Report (Volume II), Risk Characterization documents the results of an assessment of risk to health, public welfare, safety and the environment. A Method 1 Risk Assessment, (a comparison to DEP developed cleanup standards), and a Method 2 Risk Assessment, (a comparison to non-DEP developed standards) was used to assess risk to health. A Stage 1 ecological risk assessment was used to assess risk to the environment. A separate assessment of risk to safety was conducted.

For soil and groundwater, the laboratory testing results from the Phase I and Phase II Assessments were used to calculate arithmetic average concentrations, which were compared to the Method 1 and 2 standards. Averages for surface soil, subsurface soil, and groundwater were calculated. The risk assessment included only soil standards developed for commercial/industrial exposures. Comparison of standards for residential uses was not considered.

The comparison of average values in surface soil, subsurface soil and groundwater to the Method 1 and Method 2 standards (for contaminants identified at average levels above background) revealed levels below the standards.

The Stage I ecological risk assessment for the terrestrial portion of the Site evaluated the bioaccumulation of cadmium, PCBs and Mercury in surface soils to potential ecological



receptors. According to the Risk Assessment Report, the evaluation for cadmium and PCBs indicates a condition of "No Significant Risk" to ecological receptors. However, the evaluation for mercury in soil did not reveal a condition of "No Significant Risk" to the environment. Because mercury in surface soils was found in a court yard area, where exposure by wildlife is limited, the Risk Assessment Report concluded that conditions at the Site presented a condition of "No Significant Risk" to the environment.

The Stage I ecological risk assessment for the aquatic portion of the Site evaluated only PCBs in sediment. The other contaminants detected in sediment and surface water were not evaluated because, according to the Risk Assessment report, they were present at similar or greater levels upstream of the Site and were representative of background levels for the river. The Risk Assessment Report concluded that conditions at the Site presented a condition of "No Significant Risk" to the environment.

An assessment of public welfare was conducted by comparing the average concentrations calculated for soil and groundwater to UCLs contained in the MCP. A conclusion was made that a condition of "No Significant Risk" to public welfare existed at the Site.

An assessment of safety was conducted by comparing Site conditions to criteria such as the presence of corroded drums, pits, lagoons or other safety dangers. The Risk Assessment Report concluded that a condition of "No Significant Risk" to safety was present at the Site.

4.2.6 Waiver Completion Statement

In February 1995, a Remedial Response Action Completion Statement was prepared by H & A and submitted to MA DEP. The Completion Statement states:

"A Phase II - Comprehensive Site Assessment including a Risk Characterization has been completed for the Site. The most probable future use of the Site is the continued current use as a paper mill or similar industrial/commercial operation. The Risk Characterization concludes that there is "No Significant Risk" of harm to human health, public welfare, safety, or the environment under current Site conditions. In the event of excavation into the soils at the Site, a health and safety plan has been recommended to maintain a condition of "No Significant Risk." Therefore, in our opinion, a permanent solution has been obtained for the Site pursuant to 310 CMR 40.1000."

With the filing of the Completion Statement, no further action under the MCP occurred.

5.0 SITE RECONNAISSANCE

5.1 Site Reconnaissance

CEA conducted a Site reconnaissance of the property on December 6, 2002 and April 29, 2003. During the December 2002 reconnaissance, the following personnel were present representing CEA; Michael H. Coté, Mark Welsh, and Claudia Krug. During the April 2003 reconnaissance, Mark Welsh from CEA was present. CEA personnel were escorted during the site reconnaissance both times by Mr. David Lynch, the site supervisor. This section summarizes the information compiled and observations made during the reconnaissance. CEA photographically documented certain prominent Site features. Site photographs are included as **Appendix I**. The



Site Layout, included as **Figure 3** (by H & A), illustrates the physical layout of the Site as CEA observed it.

In December 2002, CEA focussed on the interior portion of the Site because of the presence of snow covering much of the ground surface. In April 2003, CEA revisited interior portions of the Site and traversed the exterior of the Site.

CEA observed floor drains inside several of the rooms of the paper mill structure and catch basins in paved areas of the exterior of the Site. CEA inquired about the discharge point of the floor drains and catch basins and was informed by Mr. Lynch, that drainage at the Site (surface flow, floor drains and catch basins inside and outside of the buildings) flows into a 30-inch diameter, subsurface drain line from Building #35 in the south, to a wastewater treatment plant in the north. Following treatment by filtration and clarification, the collected water was discharged to the river. Currently, the treatment system is not in operation and drainage from the Site is discharged to the river without treatment.

The drainage system at the Site consists of floor drains and catch basins leading to the 30-inch diameter drain line, which was pumped to the treatment plant. The treatment plant building and structures are in-place including a filter formerly used to remove paper fibers from the water stream, a large diameter concrete clarifier formerly used to remove suspended solids, and a weir structure used to monitor discharge flow. Because the treatment plant is not in operation, the pumps to the treatment plant are bypassed and the flow discharges from the sump at the pump house to the river.

CEA traversed the Site starting at the northern part of the paper mill portion of the Site at Buildings 19 and 20. CEA proceeded through the mill buildings toward the southern end of the Site along Main Street. CEA crossed the Nashua River to the east over the bridge on Main Street. CEA walked to an area on Main Street, where shops are located. A driveway on Main Street accesses the portion of the Site on the eastern bank of the Nashua River where the hydroelectric plant is located. CEA conducted a reconnaissance through the hydroelectric plant portion of the Site, but did not enter the transformer station area. CEA returned to the main mill portion of the Site and returned through the buildings to the northern portion of the Site where the wastewater treatment plant and cogeneration facility is located.

This Section of the report is written to describe observations in each building and area accessed during the Site reconnaissance.

BUILDING #1

This building contains vacant offices. The building is wood frame construction with a basement and appears to be constructed in the early 1900s or late 1800s.

BUILDING #2

Building #2 appears to be constructed in the late 1800s or early 1900s and functioned as laboratory and product design for the paper mill. Suspect asbestos containing material in floor tiles, wall tiles and ceiling tiles was observed. Rooms in this building contain desks and laboratory counters with some equipment still present. No chemicals were observed.

BUILDING #2A

Building #2A at one time reportedly stored approximately 50, 55-gallon drums of virgin oil of various grades. At the time of inspection, the building was empty of drums.

BUILDING #3

Building #3 is no longer present. The top of the basement was present, but no access was provided to the basement.

BUILDING #4

Building #4 is a large brick structure in poor condition that appears to be constructed in the late 1800s or early 1900s. CEA observed drums, ASTs and pallets of bagged process raw materials. CEA observed that the bags of raw materials were in very poor conditions, with observed spillage onto the concrete floor of the building. CEA also observed that in one area of the building, the concrete floor had failed and raw material was released to the underlying soil below the floor. CEA observed from labels of the raw material bags that the released material was mono ammonium phosphate, a solid, white powder, which is used in flame retardants and fertilizers and can be used as a food additive.

The following containers were observed:

- 30-40 empty drums,
- 8-10 drums of lubricating oils,
- 8-10 drums of dyes, and
- 3,000 and 2,000 gallon ASTs of polymers and bleach. Now empty but possibly with residual fluids.

BUILDING #5

Building #5 is no longer present.

BUILDING #6

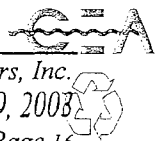
Building #6 is a brick structure in very poor condition that contained boilers used to heat the buildings.

BUILDING #7

Building #7 was an old brick structure in very poor condition that contained large boilers formerly used to heat the mill. A portion of the structure collapsed revealing insulation materials. One the eastern side of the building, a large piece of damaged insulation was observed on the ground. The insulation is suspected of being asbestos containing material.

BUILDING #10

This building contains winds and a splitter machine previously used to divide large rolls of paper into smaller sizes. This building is also used for storage of equipment, materials, and paper rolls. This building also contains pressure filters, a boiler room, and a fire pump room. Suspect asbestos containing materials appear to be present. This room contains numerous drums of glue and 25-30 empty drums. The eastern portion of this building is a long loading dock, with an overhanging canopy, which is in disrepair. Along the eastern side of this building between the



building and the river, CEA observed a raised area where railroad siding was previously located. CEA observed the presence of cinders, coal and slag along the raised area.

BUILDING #11

Building #11 is used to store machine parts, pipes, dowels, couplings, and belts. The basement below Building #11 is used for additional storage. Containers in this room included compressed gas cylinders of argon, acetylene, and nitrogen, as well as a 100-gallon tank of kerosene.

BUILDING #12

This building is a one-story building, which is used as a carpenters shop, pump repair shop, and contains a parts cleaning area. The floor is wood with an approximately 5-foot high crawl space beneath the floor. The floor is somewhat oil stained. However, oil impacts to the soil were not observed in the crawl space below. A 275-gallon fuel oil AST was observed in a courtyard outside of the building. The AST was observed to be in good condition, with no indications of oil releases.

BUILDING #13

This building contains a machine shop, welding area, pipefitting area, parts cleaning area, and an oven for forging. The floor is of wood construction and is oil stained. Beneath the floor is an approximately 5-foot high crawl space containing old roll heads.

BUILDING #14

This building is used for storage and forklift maintenance, and contains some small equipment and a sprinkler system in a crawl space beneath the first floor. Containers in this room include eight drums of lubricating oils, and several drums of antifreeze.

BUILDING #15

This building contains rolls of materials, some equipment, and is used mainly for storage.

BUILDING #15A

This building is used for storage and contains the following:

- Numerous drums of Sodium Chloride, Sod Aluminum Solution, Piomel, Tergitol Surfactant, Meta Sol, Autifoam, Nalkleen,
- 200-gallon AST of pyroban (a fire retardant),
- Bags of Polybor-Dry (Borax), and
- 25 drums of lubricant and TPC Solvent.

BUILDING #17

This building contains the hydroelectric plant. Three generators are located inside the two-to-three-story high building. Water from the river flows through a large diameter pipe from the level of the dam along the river and up to the level of the weirs, which feed water-powered turbines. Water flowing through the turbines discharges to the river on the downstream side of the hydroelectric plant.



Electric transformers are on the easterly side of the building. These transformers possibly contain PCB dielectric fluids. This area of the Site was the location of part of the RAM conducted by H & A to address petroleum-impacted soil in the transformer bank area.

BUILDING #18

First Floor

This building is used for pulping and mixing. A large hydro-pulper machine is located in the center of the room. A basement is located beneath the hydro-pulper, which contains equipment, machines, a sump and sump pump. Water in the sump is pumped to the 30-inch drain line. Equipment in this building contains hydraulic oil reservoir tanks. This building has tanks/containers of the following chemicals:

- 250-gallon AST of Paranol,
- 250-gallon AST of Baysynthol, both used as latex grade of paper,
- Several 55-gallon drums empty,
- Several bags of sodium hydroxide powder to adjust pH, and
- Two 4,500-gallon ASTs of Perez 631, wet strength to strengthen paper. These are currently empty, but may have residuals.

Basement

The basement of this building contains a 1,000-gallon AST of condensate water, sump and pumps to remove floor water to the 30-inch drain, and access to the bottom of the hydro-pulper machine.

BUILDING #19-20

First Floor

This building is used for refining/filtering paper fiber solutions and producing paper using two large paper making machines. The building contains pumps, tile chests, large tanks, 20,000 – 30,000-gallon capacity for mixing. There are trench drains and drain clean-outs in the concrete floor.

Two large paper making machines (process lines) cover most of the first floor and are oriented north to south from Building #19 to about the end of Building #20.

This building contains the following containers:

- Several drums containing residue from cleanout of the Perez AST,
- Several drums of defomers,
- Four 500-gallon ASTs of sulfuric acid solution and Custom Clean A CCA201,
- Several drums of Detac to remove pulp from rolls,
- Several drums of Betz SI – Corrosive,
- Several drums of Starched, water additives, a latex, mixing is done in ASTs,
- Drums of Pyroban-ammonia salt, an anti-flamming agent,

Four or five 2,300 gallon ASTs for mixing, and

- Two 7,800 gallon ASTs of Pyroban empy, a sizing agent (Plasmine).

Basement

There are several basements beneath Building #19 and #20 and are used as a "line shaft cellar" for condensate recovery and machine repairs. Some basements contain sumps with pumps. The sumps are about 6'x 3'x 2' deep (to collect water from the room for discharge to 30-inch drain line). Numerous trench drains are on the first floor throughout this building.

Several separate basements are beneath paper machines to clean and repair directly beneath each machine located on the first floor. The basement floors beneath the machines contain very oily areas with oil puddling in some areas. Dried paper pulp can be seen on the basement floors and walls where repairs are done.

BUILDING #23

This building contains hydro-pulpers for mixing pulp on the first floor that extent to the several basements. The basements in this area are about 20 feet below the first floor elevation and are used for machinery repairs and as sumps to remove water. Standing water was observed in basement beneath this building. The first floor contains numerous trench drains in this building, which are tied to the 30-inch drain line. Containers in this building include:

- 5,000-gallon AST containing aluminum sulfate residue only,
- Several drums of fluorocarbon (to make grease resistant paper),
- Several drums of aluminum sulfate, and
- 30-40 drums of dyes.

The walls and exteriors of process equipment were observed to be impacted by dye materials.

BUILDINGS #27-28

These buildings are used for wastewater treatment. Water from the mill is pumped to Building #27 and is filtered and discharged into the clarifier. This building has a concrete floor, a basement with a sump and pump, and filters to remove solids from the processed water. Fiber sludge is placed in drums on pallets and transported back to the mill for re-used as secondary paper.

Water from the Cogen plant was also treated here. This treatment plant is currently not in use.

BUILDING #29

This building is used for storage and an area with equipment to add moisture to paper. The floor is concrete and floor drains are present that drain water to the 30-inch drain line. Some equipment contains hydraulic oil reservoir tanks.

BUILDING #31

This building is used as a garage. Mr. Lynch indicated that the building is currently used strictly for storage of a lawnmower and materials for the dam. No equipment maintenance is done on-site.



BUILDING #33

Building #33 is the pump house, located at the end of the 30-inch drain line. When the plant was in operation, water was pumped from this building to the on-site wastewater treatment plant. Since the water treatment plant is currently not on-line, collected water is allowed to discharge through an overflow pipe into the Nashua River.

BUILDING #34-34A

This building is for storage and a loading dock.

BUILDING #35

This building is the beginning of the 30-inch drain line beneath the Site.

BUILDING #37

This building is used as office space.

COGENERATOR PLANT

This plant was not accessible during the reconnaissance. The plant produces electricity and steam using natural gas and fuel oil fired steam boilers. A boiler room is in the southern portion of the building and is fuel oil and natural gas fired. Fuel oil for the cogeneration facility is stored in an estimated 150,000 gallon AST. The AST is located on the most northerly corner of the Site and is surrounded by a concrete, secondary containment dike. The plant is operated by Indeck PPA.

The plant reportedly generates wastewater, which is pumped through the treatment plant outfall and discharges to the river.

5.2 Vicinity Characteristics

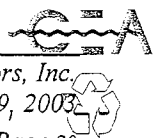
CEA observed visible exterior portions of adjacent properties during Site reconnaissance while remaining within Site boundaries. We also viewed the frontage portion of nearby properties from public roadways.

5.2.1 Current Occupants & Use of Adjoining Properties

CEA observed the following businesses and uses at properties adjoining the Site. To the north, south, and west of the building are residential areas. To the east of the Site is the Nashua River. Across the Nashua River is commercial property, as well as the hydroelectric plant and garage associated with the Site.

5.2.2 High-Risk Properties within 1,000 Feet

Commercial or industrial properties that use on-site septic systems, industrial parks, heavy industrial use, historical sand and gravel mining, and historical intensive agricultural use constitute an elevated risk compared to properties without any of these uses. CEA did not identify any such high-risk properties currently within 1,000 feet of Site boundaries. The Cumberland Farms site discussed in Section 2.2 is considered a high-risk property, but since it is hydraulically cross-gradient of the Site, it should not impact the Site.



5.3 Utilities

Water lines throughout the Site are depicted on **Figure 3**.

The presence of a septic tank and leach field is discussed in the H & A Phase I Limited Site Assessment Report. The septic tank & leach field was reportedly installed in 1954. In 1981, the septic tank was reportedly disconnected from the leach field and connected with the municipal sewer.

5.4 OHM Use, Treatment, Storage, Disposal & Generation

5.4.1 Underground Storage Tanks (USTs) & Aboveground Storage Tanks (ASTs)

CEA observed on a plan of the Site, that two, 1,000-gallon USTs for storing gasoline were located in front of the garage (Building #31) along Main Street. CEA was informed that these tanks were removed from the Site.

CEA observed on a plan of the Site, that two, 30,000-gallon ASTs, which were used to store Number 6 oil for the boilers were previously located next to Building #10. These two ASTs were formerly located inside a secondary containment structure consisting of an asphaltic concrete floor and a concrete dike surrounding the tanks. CEA did not observe indications of significant releases from the ASTs.

A 275-gallon fuel oil AST was also observed adjacent to Building 12. This AST is used to store fuel oil to heat Building #12. CEA did not observe indications of releases of oil from this AST.

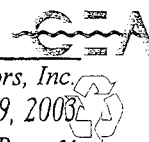
5.4.2 Polychlorinated Biphenyls (PCBs)

Mr. Lynch indicated that there were no PCB equipment at the Site. However, based on the age of the facility, PCBs may be present in transformers. Transformers in the paper mill portion of the Site were reportedly retro-filled with non-PCB dielectric fluid in 1988.

The 1976 Toxic Substances Control Act gave the EPA regulatory control over use of PCBs. EPA partially banned the use of PCBs in November 1979, and banned all use of PCBs in newly-installed electromagnets, transformers, heat-transfer, and hydraulic systems in July 1984.

5.5 Additional Conditions of Concern

CEA did not conduct an asbestos, lead paint, mold or radon survey or testing. Based on the age of the building it is likely that asbestos and lead paint were used. Mr. Lynch indicated that asbestos was abated from several buildings previously, but pipe wrapping, oil boilers, old flooring and ceiling tiles are present in buildings at the Site and may contain asbestos.



6.0 FINDINGS & CONCLUSIONS

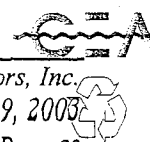
6.1 *Recognized Environmental Conditions*

CEA performed this Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 on the Site (as defined in Section 1.2). Section 7.5 of this ESA Report lists any exceptions to, or deletions from, ASTM E 1527-00 and Section 7.6 lists any additions thereto. This ESA revealed no evidence of *recognized environmental conditions* at the Site except for the following:

- Environmental Site assessment work conducted on the Site from 1992 to 1995 for the Pepperell Paper Company and documented in a Phase I – Limited Site Investigation Report and a Phase II Comprehensive Site Assessment Report prepared by H & A, revealed the presence of releases of oil and hazardous materials to soil, groundwater, surface water and sediment at the Site. The presence of these releases constitutes a *recognized environmental condition*. A risk characterization was completed as part of the Phase II Assessment. The risk characterization concluded that a condition of “No Significant Risk” to human health, public welfare, safety or the environment exists at the Site, based on the continued use of the Site as a paper mill or similar industrial/commercial operation. A Remedial Response Action Completion Statement was submitted to DEP.

CEA believes that the completion of the risk characterization concluding “No Significant Risk” to human health, public welfare, safety or the environment and the filing of the Remedial Response Action Completion Statement addresses this *recognized environmental condition*. This conclusion is contingent on the future use of the Site remaining commercial / industrial and a prohibition on the use of the Site for residential purposes. It is also contingent on the maintenance of the current Site buildings. Future construction activities involving the excavation and handling of soil at the Site would need to be conducted in accordance with 310 CMR 40.0000, the Massachusetts Contingency Plan under a health and safety plan.

- During the Site visit, CEA identified evidence of oil releases in the basement of building #19 and #20. In this basement is located oil storage tanks and oil feed lines to a automatic lubrication system for a portion of the paper making machine line. The floor of this basement was observed to be impacted by releases of lubricating oil. The environmental quality of the underlying soils or groundwater is not known.
- During the Site visit, CEA observed an area where insulation material from the boiler plant had fallen to the ground. The boiler plant building is in very poor condition with portions of the structure having collapsed. CEA believes that the insulation material is suspect asbestos containing material. Asbestos has a Reportable Quantity (RQ) in Massachusetts of 10 pounds. If the released insulation material is asbestos, the RQ could be exceeded requiring notification to DEP and a cleanup under the Massachusetts Contingency Plan.
- During the Site visit, CEA observed the presence of damaged bags of raw material on pallets in Building 4. The raw material has spilled onto and below the concrete floor of this building. Based on labels on the damaged bags, the material spilled is believed to be ammonium phosphate. This material does not have a RQ in the Massachusetts Contingency Plan, and is not believed to be a hazardous material.



- During the Site visit, CEA observed an area along the eastern side of Building 10, where a former railroad siding was believed to be located. CEA observed the presence of coal, cinders, and slag, which can contain hazardous materials, particularly polycyclic aromatic hydrocarbons (PAHs). Constituents in soil associated with cinders or ash are considered to be a background condition and would not require notification to DEP.

6.2 *Environmental Liens or Activity & Use Limitations*

CEA did not identify any environmental liens against the Site or Activity and Use Limitations imposed on the Site.

6.3 *Recommendations*

No assessment for lead paint, asbestos containing materials, or mold was conducted during the ESA. CEA recommends conducting a lead paint, asbestos and mold survey.

CEA recommends that the *User* verify that the proper shipment off-site of oil or hazardous materials currently stored in tanks and containers at the Site occurs.

7.0 **LIMITATIONS & CONDITIONS**

7.1 *Methodology*

CEA conducted our ESA of the Site in conformance with "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM E 1527-00).

7.2 *Scope of Services*

CEA performed the following scope of services in November and December 2002:

- Contacted local offices regarding regulatory information pertinent to environmental conditions at the Site and nearby properties;
- Conducted a visual reconnaissance of the Site and vicinity on December 6, 2002 and April 29, 2003, to inspect for recognized environmental conditions and photo-document Site conditions (**Appendix E** presents copies of Site photographs);
- Contracted Environmental Data Resources of Dedham, Massachusetts to provide a search of federal and state databases on December 6, 2002 and reviewed the database search report (**Appendix B** presents a copy of the database search report);
- Prepared this ESA Report.

7.3 *General Limitations*

No warranty, whether expressed or implied, is given with respect to this report or any opinion herein. It is expressly understood that this report and the opinions herein are based upon Site conditions as they existed at the time of the investigation. This report, the opinions stated herein,



and the attachments are subject to the complete Statement of Limitations, which has been provided in **Appendix F**.

This report was prepared for the exclusive use of Capital Recovery Group, LLC and its joint venturers and their attorneys to be utilized in an environmental evaluation of the Site. This report and the findings contained herein shall not be disseminated or conveyed to any other party without prior written consent of CEA. However, CEA acknowledges and agrees that the report may be conveyed to the parties associated with the proximate transaction, mortgaging or refinancing of the Site, by our Client.

7.4 Specific Conditions of the ESA Report

CEA based the conclusions of this report, in large part, on information provided by the client, their agents, or third parties, including state or local officials. CEA assumes no responsibility for the accuracy and completeness of this information.

The database search indicates there are non-geocoded properties located in the Site vicinity that the database search contractor cannot definitively plot due to inaccurate or missing information provided by the appropriate governmental agency. CEA reviewed the list of non-geocoded properties to determine whether the database search listed the Site or any adjacent properties. If we were able to identify any such properties within a respective ASTM search radius, we included it in Section 2.0 of this ESA. Refer to **Appendix B** for information on the remaining non-geocoded properties.

7.5 Deletions or Deviations from ASTM Scope

CEA did not omit any of the research presented in ASTM E 1527-00, or deviate from the required ESA scope, except as specifically provided for because of redundancies in information gathering.

7.6 Additions to ASTM Scope

CEA went beyond the required scope of ASTM E 1527-00 in providing additional details of hydrology and geology presented in Section 3.2 and 3.3, respectively, and the Site history presented in Section 4.2.

7.7 Reliance

CEA prepared this ESA for the sole use of Capital Recovery Group, LLC and its joint venturers and their attorneys in connection with assessing Recognized Environmental Conditions at the Site. CEA does not authorize use of this information by others for any reason, except with our prior written consent.

8.0 REFERENCES

Database

Environmental FirstSearch™ Radius Report dated December 5, 2002.

Interviews

Site contact: Mr. David Lynch, December 6, 2002.

Pepperell

Assessor's Office: records reviewed December 13, 2002.

Board of Health: records reviewed December 11, 2002.

Building Department: records reviewed December 11, 2002.

Fire Department: records reviewed December 13, 2002.

Massachusetts

Department of Environmental Protection: Massachusetts Contingency Plan regulations (310 CMR 40.0000), October 29, 1999 revision.

United States

Geological Survey (in cooperation with the Massachusetts Department of Public Works):
"Bedrock Geologic Map of Massachusetts" edited by E-an Zen, dated 1983.

Geological Survey: "Townsend, Massachusetts 7.5 x 15-minute series topographic quadrangle,
dated 1997.

World Wide Web

MA DEP Bureau of Waste Site Cleanup.
<http://www.state.ma.us/dep/bwsc/sites/report.htm>

