

Prepared for:
GARDERE & WYNNE, L.L.P.

**ENVIRONMENTAL SITE ASSESSMENT
PILLOWTEX CORPORATION
NORTH CAROLINA FINISHING COMPANY
HIGHWAY 29 NORTH
SPENCER, NORTH CAROLINA**

Prepared by:
MAXIM TECHNOLOGIES, INC.
2575 Lone Star Drive
P.O. BOX 224227
Dallas, Texas 75222
(214) 631-2700

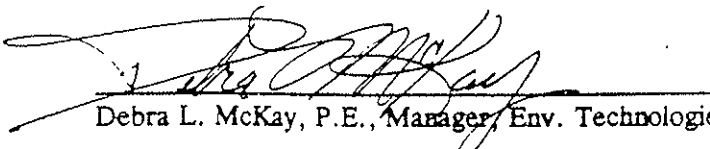
Project N° 9753633.100

January 16, 1998

Preparer:


Bradley A. Morris, Environmental Professional

Reviewed by:


Debra L. McKay, P.E., Manager, Env. Technologies Group



January 16, 1998

Mr. Tim Biggio
Gardere & Wynne, L.L.P.
3000 Thanksgiving Tower
Dallas, TX 75201

Re: Environmental Site Assessment for Pillowtex Corporation
North Carolina Finishing Company
Highway 29 North
Spencer, North Carolina

Maxim Project N° 9753633.100

Dear Mr. Biggio:

Submitted herewith is the report for an Environmental Site Assessment conducted at the referenced subject site. This study was performed in accordance with Maxim's Master Services Agreement dated July 26, 1996. The attached report, as noted therein, has been prepared in general accordance with the ASTM Standard E1527-97.

Information accumulated for this assessment will be retained with your project file. The report and information in your file are considered confidential and will not be released without your authorization.

We appreciate the opportunity to perform these services for Gardere & Wynne, L.L.P. Please contact me if you have questions regarding this information.

Sincerely,
MAXIM TECHNOLOGIES, INC.

Debra L. McKay, P.E.
Manager
Environmental Technologies Group

DLM/klc/asm
Attachment

2575 LONE STAR DRIVE • P.O. BOX 224227 • DALLAS, TEXAS 75222 • (214) 631-2700 • FAX (214) 920-1818

Austin Research Engineers • Chen-Northern • Empire Soils Investigations
Kansas City Testing • Southwestern Laboratories • Twin City Testing



FIGURES

REGULATORY AND TECHNICAL ACRONYMS

ACM	Asbestos-Containing Material
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tank
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
DOT	Department of Transportation
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
LBP	Lead-Based Paint
LPST	Leaking Petroleum Storage Tank
LUST	Leaking Underground Storage Tank
NCTCOG	North Central Texas Council of Governments
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PCB	Polychlorinated Biphenyl
PLM	Polarized Light Microscopy
PST	Petroleum Storage Tank
RAATS	Resource Conservation and Recovery Act Administrative Actions Tracking System
RCRA	Resource Conservation and Recovery Act
TDH	Texas Department of Health
TNRCC	Texas Natural Resource Conservation Commission
TNRIS	Texas Natural Resources Information System
TWC	Texas Water Commission
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank

TABLE OF CONTENTS
Environmental Site Assessment
North Carolina Finishing Company

	Page
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION AND SCOPE OF SERVICE	18
3.0 SUBJECT SITE DESCRIPTION	19
4.0 RECORDS REVIEW	19
4.1 Historical Use Information	19
4.1.1 Review of Aerial Photographs	20
4.1.2 City Directories	21
4.1.3 Fire Insurance Maps	21
4.1.4 Historical Interviews	21
4.1.5 Historical Summary	22
4.2 Physical Setting Information	22
4.2.1 Topography	22
4.2.2 Soil Conditions	22
4.2.3 Subject Site Geology	23
4.2.4 Regional Groundwater Conditions	23
4.2.5 Floodplain Information	24
5.0 SUBJECT SITE RECONNAISSANCE	24
5.1 Subject Site Observations	25
5.1.1 Subject Site Overview	25
5.1.2 Description of Specific Subject Site Features	25
5.2 Adjoining Property Observations	41
6.0 REGULATORY REVIEW	41

TABLE OF CONTENTS
Environmental Site Assessment
North Carolina Finishing Company

	Page
6.1 Regulatory Review	41
6.2 Additional Record Sources	43
7.0 FINDINGS AND CONCLUSIONS	44
8.0 RECOMMENDATIONS	49
9.0 OBJECTIVES AND LIMITATIONS OF ASSESSMENT	51

FIGURES

Figure 1: Subject Site Vicinity Map

SURVEYS

As Built Surveys
Boundary Surveys

APPENDICES

- A. Copy of Scope of Work
- B. Aerial Photographs
- C. Records of Communication
- D. Site Photographs
- E. List of Storage Tanks
- F. Regulatory Review Information
- G. Qualifications

ENVIRONMENTAL SITE ASSESSMENT NORTH CAROLINA FINISHING COMPANY
HIGHWAY 29 NORTH
SPENCER, NORTH CAROLINA

1.0 EXECUTIVE SUMMARY

In accordance with the proposal dated December 12, 1997, and the Master Services Agreement dated July 26, 1996, between Maxim Technologies, Inc. (Maxim) and the Pillowtex Corporation, Maxim performed an ESA of the referenced property (hereinafter, the "Subject Site") for Gardere & Wynne, L.L.P. The scope of service, objectives, extent and limitations of the services and this report are described in more detail in the text of the report.

- ▶ The Subject Site is located at the intersection of Highway 29 North and Fieldcrest Cannon Lane (Main Street) in Spencer, North Carolina. The Subject Site is currently occupied by North Carolina Finishing Company (NCF), a division of Fieldcrest Cannon, Inc. NCF is a textile mill (wet finishing plant) involved in the continuous dyeing and finishing of fabric (grey) goods. The Subject Site consists of two tracts; (1) a Plant Site tract consisting of 37 acres and containing the manufacturing operations and (2) a Waste Water Treatment Plant (WWTP) tract consisting of 61 acres and containing a clubhouse, and outbuildings (office for WWTP). The Subject Site utilizes the following five types of dyes; sulfur, naphtha, vat, disperse, pigment and exhaust dye. Adjoining properties consist of the Yadkin River to the north and east, vacant residential lots and residential houses to the west, and Interstate 85 to the south.

- ▶ According to a review of aerial photographs and interviews with individuals familiar with the Subject Site, it appears that historically, the Subject Site has been a textile mill since at least 1917. Since 1917, the Subject Site has gone through dozens of additions and renovations. A review of aerial photographs for the years 1936, 1950, 1956, and 1981

indicates that the textile mill has essentially been developed as it appears today since at least 1950. The WWTP has been fully developed as it appears today since at least 1981.

- ▶ The Plant Site tract consists of fabric dye and finishing production buildings that contain a Bleach Department, Dye Units No. 1 and 2, a Finishing Department, a Put Up Department, a shipping warehouse, shipping and receiving Docks, boiler room, a coal storage area, a process water settling/storage reservoir, guard and personnel offices, a maintenance garage, above-ground storage tanks (ASTs), a "Claricone" water filter (under construction), an inactive burn pit/landfill, a former boiler ash stockpile area, a former emergency coal storage area, the former 20,000-gallon No. 2 fuel oil underground storage tank (UST) site, the former 2,000 and 550-gallon gasoline/diesel UST site, the former 3,000-gallon kerosene UST site, and the former 550-gallon UST site.

The WWTP tract contains an active construction debris landfill, an inactive landfill, a wastewater treatment plant, sludge application acreage, and a clubhouse.

- ▶ The Bleach Department consists of the Continuous Bleach Ranges Nos. 1 and 3, the Open Width Bleach Range, and Mercerizers Nos. 1 and 3. Dye Unit No. 1 consists of the Continuous Dye Range No. 1, the Continuous Dye Range No. 3, and the Pigment Range. Dye Unit No. 2 consists of Finishing Ranges Nos. 9, 10, and 11, Pad Batch, and Jig units. Two older elevators were observed inside the facility buildings. Facility personnel stated that the elevator near the dye mixing area contains hydraulic oil.

The Finishing Department consists of the Finishing Range Nos. 3 through 5, Nos. 7 and 8, Steam Frame Nos. 2 and 3, Sanforizers, Sanders and Sueders, and Calenders units. The Put Up Department consists of six Tuber Inspection Tables, ten Winder Inspection Tables, and two Satin Inspection Tables.

The shipping warehouse is utilized for the temporary storage of finished goods prior to shipping the fabrics to the customer. The shipping and receiving docks are located at the shipping warehouse and are adjacent to Dye Units No. 1 and No. 2, respectively. The boiler room is located adjacent to the coal storage area and the process water settling/storage reservoir. The boiler room consists of two coal-fired steam generation units that supply steam to the production buildings. The boiler room has the capability to utilize coal or natural gas for fuel. The coal storage area is located adjacent to the boiler room. Coal supplies for the two boilers are delivered via rail car and temporarily stored in the rail cars pending off-loading and use. The process water settling/storage reservoir is located along the northeast boundary of the Subject Site. Water is withdrawn from the Yadkin River and pumped into the process water settling/storage reservoir. Water initially enters a settling unit within the reservoir to allow the removal of fines from the water prior to being used at the Subject Site for both process water and emergency fire water.

The office building is located adjacent to the shipping warehouse and contains administrative and plant management offices. The guard and personnel offices are located at the entrance to the Subject Site and are within a single building. The Subject Site has security guard services to continuously monitor and screen personnel and vehicles entering the plant. The maintenance garage is located at the southwest boundary of the Subject Site. The garage is utilized for the repair and maintenance of plant vehicles. The maintenance garage is the location of the former 2,000 and 550-gallon gasoline/diesel USTs.

Thirty-one (31) above-ground storage tanks (ASTs) are located throughout the Subject Site. Only a few of the ASTs have containment dikes to contain the contents of the tank in the event of a release or rupture including; the diesel, waste oil, and unleaded fuel

ASTs located at the garage, the No. 2 fuel oil AST located behind the power plant, and the reductone dye AST located in Dye No. 2 unit.

A "Claricone" water filter is currently under construction at the north end of the Subject Site. The Claricone will be utilized to filter fines from the process water prior to use. During soil excavation activities for the construction of the foundation structure for the Claricone, the construction contractor encountered buried solid waste materials including construction debris, wood, shop rags and black ash. According to on-site personnel, the Claricone is located above an inactive and abandoned former burn pit/landfill for the Subject Site. The specific types of waste materials that were buried and subsequently burned at the site are unknown. The burn pit/landfill was utilized for an unknown period of time prior to 1984 for the dumping and subsequent burning of waste materials generated at the Subject Site. According to Mr. Richard Shoaf, with North Carolina Finishing Company, this burn pit/landfill was utilized for the disposal of paper, cardboard and remnant cloth materials and was approximately 75 square feet in size when he began work at the facility in 1962. He was unsure of other materials that may have been placed in this burn pit/landfill. No removal of waste material from the burn pit/landfill area has been conducted in the past.

The former boiler ash stockpile is the location of an area utilized for the stockpiling of boiler ash from the Subject Site boiler room. The boiler ash stockpile area is located adjacent to the west site boundary and an abandoned school house (this is an old, abandoned school house located near the maintenance garage on the west side of the Subject Site). Approximately 30,000 to 35,000 cubic yards of coal combustion by-product (bottom ash and fly ash) were stored at this location. The Alexander Company removed the ash for use as fill for the "Jake Alexander Drive Extension". Upon removal of the ash material, the site was covered with low permeability fill material and seeded.

The former emergency coal storage area is located adjacent to the abandoned school house along the western site boundary. This area was utilized up to 1989 for the temporary storage of coal for boiler fuel use. Remnants of coal were noted along the site boundary fence during this site inspection.

The former 20,000-gallon No. 2 fuel oil UST site is located at the southeast corner of the Subject Site adjacent to Highway 29 and the brine and propane ASTs. According to the UST Closure Assessment Report completed by Pyramid Environmental, Inc., dated November 3, 1994, a closure assessment was completed to evaluate soils beneath the UST subsequent to removal. The laboratory analysis of soil samples collected during the Closure Assessment indicated that the soil beneath the UST was affected with petroleum hydrocarbons at concentrations above the state regulatory limits.

According to the Site Assessment Report completed by Engineering Tectonics, P.A. (ETPA), dated April 19, 1995, ETPA conducted a limited soil assessment in the vicinity of the former 20,000-gallon UST excavation to determine the horizontal and vertical extent of impacted soils and to characterize the groundwater in the vicinity of the former tank. Field observations during the installation of three monitor wells (MW-1 through MW-3) indicated groundwater had been impacted with petroleum hydrocarbons. During the collection of groundwater samples from the three monitor wells, a measurement for free product indicated two inches of free product in MW-2 and five inches of free product in MW-1. Laboratory analysis of additional groundwater samples indicated the presence of chlorinated solvents and the presence of lead concentrations above 15 ppb (maximum contaminant level - MCL). The Site Assessment Report concluded that impacted soils and groundwater appear to be located beyond the vicinity of the UST to the south and east.

A Corrective Action Plan (CAP) for the 20,000-gallon UST site was completed by Pyramid Environmental, Inc. on June 5, 1997. In this CAP, Pyramid Environmental recommended remediation of the soil and groundwater at the 20,000-gallon UST site by natural attenuation. Pyramid Environmental further recommended that reasonable attempts should be made to install two additional shallow wells and one deep well in the area downgradient from the leading edge of the plume. Pyramid also recommended that all monitor wells be sampled quarterly for the first year after the CAP is approved and bi-annually thereafter. Pyramid recommended continued monthly or semi-monthly monitoring and removal of free product. According to the CAP, the site will be re-evaluated after five years and recommendations will be made with respect to closing the site or continuing or changing the monitoring and/or remediation programs.

Final approval to implement this CAP was received from the NCDEHNR by letter transmittal dated September 2, 1997. According to Mr. Josh Chandler, with Fieldcrest Cannon, this CAP has been implemented at the Subject Site including free product removal in September 1997, and sampling of monitor wells in December 1997.

The former 2,000 and 550-gallon gasoline/diesel UST site is located at the southeastern corner of the maintenance garage. On September 21, 1990, Pyramid Environmental, Inc. conducted a UST Closure Assessment Report of the two USTs. Laboratory analysis of two water samples collected from the excavation indicated concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) at concentrations greater than the maximum allowable standards as set forth in North Carolina Administrative Code Title 15, Subchapter 2L. Concentrations of TPH in the soil sample collected from the north sidewall was 1,204 ppm. The Assessment Report concluded that further investigation of the site was needed and recommended that a Comprehensive Site Assessment (CSA) be completed. Pyramid Environmental, Inc. completed a Subsurface Investigation Report,

dated September 8, 1991, in the vicinity of the former 2,000 and 550-gallon gasoline USTs to determine the extent of possible soil and groundwater contamination. During June 1991, Pyramid Environmental installed three groundwater monitoring wells at the site. Laboratory analysis of soil samples collected from the well borings indicated TPH concentrations below the laboratory detection limit. No free product was observed during the drilling or sampling of the three wells. According to the Subsurface Investigation Report, the laboratory analysis of three groundwater samples collected from the three monitoring wells did indicate the presence of benzene at concentrations that exceeded the North Carolina groundwater standard. The Report recommended "that further soil and groundwater investigation efforts may be required to fully define the vertical and horizontal extent of leached materials". A CSA completed by Pyramid Environmental, dated April 15, 1997, recommended a CAP for this site and remediation by natural attenuation.

There were no additional reports with regard to the former 2,000 and 550-gallon UST site available for review by Maxim at the Subject Site at the time of this inspection. According to Mr. Josh Chandler, with Fieldcrest Cannon, the state requested additional information with regard to the CSA, which was forwarded to the state for review. He further stated that there has been no response to date regarding this information.

The former 3,000-gallon kerosene UST site is located at the northwestern corner of the plant building. According to a UST Closure Assessment Report, dated December 1990, on September 21, 1990, Pyramid Environmental, Inc. conducted a UST closure assessment of this 3,000-gallon kerosene UST. On October 4, 1990, excavation of the soil in the vicinity of the tankhold was completed. Laboratory analysis of soil samples detected TPH concentrations of 45 ppm and 163 ppm from two soil samples. The Assessment Report concluded that further investigation of the site was needed and recommended that a

Comprehensive Site Assessment (CSA) be completed. Pyramid Environmental, Inc. completed a Subsurface Investigation Report, dated September 14, 1991, in the vicinity of the former 3,000-gallon UST to determine the extent of possible soil and groundwater contamination. On June 23 1991, Pyramid Environmental installed one downgradient monitor well on the site. According to the Subsurface Investigation Report, the laboratory analysis of a soil sample collected from the well did not indicate concentrations of TPH above the laboratory detection limit. Laboratory analysis of a groundwater sample collected from the monitoring well "did not indicate significant chemicals" regulated by the NCDEHNR. The Report recommended that the monitoring well be sampled for the next seven quarters and a quarterly report be prepared and submitted to the NCDEHNR.

There were no additional reports with regard to the former 3,000-gallon kerosene UST site available for review by Maxim at the Subject Site at the time of this inspection.

Diesel-like odors were detected from subsurface soils associated with the installation of a conveyor belt assembly near the center of the Plant Site tract during August 1997. An investigation into the origin of the odors indicated the presence of a previously unknown, and abandoned, 550-gallon UST. A small quantity of sludge and residual diesel product were removed from the UST and the steel UST was subsequently removed. The UST removal was reportedly supervised by A & D Environmental located in High Point, North Carolina. No copy of this report was available for review by Maxim at the Subject Site at the time of this inspection.

The WWTP tract contains the NCF Waste Water Treatment Plant. The WWTP has a total capacity of 4.25 million gallons of waste water and sewage. The WWTP currently treats approximately 2.5 million gallons. The WWTP receives all waste water from the NCF Plant, treats the waste water for pH, and discharges the effluent into the Yadkin River

(NPDES Permit No. NC0005487). According to Mr. Jim Ogle, Plant Manager, testing has been performed on the waste water pipes to determine that all pipes do discharge to the WWTP. He stated that the pipes tested did discharge to the WWTP, however, some evidence of leakage from some of the pipes was noted during the testing activities. The WWTP contains a mixing basin, an aeration basin, clarifiers, and sludge removal basins. The WWTP also contains several inactive, concrete lined, sludge drying beds.

The active construction debris landfill is located adjacent to the WWTP. Construction debris including bricks and wood fragments are placed into this landfill. This landfill is less than one acre in size. According to personnel at Fieldcrest Cannon, it was believed that North Carolina regulations do not require that construction debris landfills, less than one acre in size, be permitted with the state. According to Mr. Bill Hocutt, with the North Carolina Division of Waste Management - Solid Waste Section, Construction and Demolition (C & D) Landfills must be permitted with the state regardless of size, however, Land Clearing and Inert Debris (LCID) Landfills, less than 2 acres, do not require permitting with the state (15A NCAC 13B.0563). Mr. Hocutt further stated that when determining the landfill type, it is helpful to refer to the definition of Beneficial Fill (15A NCAC 13B.0562(1)) which states that no permit is required for beneficial fill when *the fill material consists only of inert debris strictly limited to concrete, brick, concrete block, uncontaminated soil, rock and gravel.*

The inactive landfill is located south of the WWTP. This landfill has not been active for three to four years. According to Mr. Richard Shoaf, with North Carolina Finishing Company, construction debris (including bricks and wood) from the NCF Plant was placed into the landfill. The landfill was later covered with fill material and seeded. Mr. Shoaf further stated that this landfill was less than one acre in size.

The WWTP sludge application acreage is located south of the WWTP. Processed organic sludge from the WWTP is applied by a subcontractor to this area by the injection and tilling method. Subsequent to sludge application, the acreage is seeded for erosion control. Approximately 500,000 gallons of sludge from the WWTP was applied to the acreage in August 1997. In addition, WWTP sludge is applied to approximately 500 acres located on several off-site farms. The WWTP Site tract also contains a clubhouse for social activities during company sponsored events.

- ▶ The Subject Site was identified twice on the North Carolina Leaking Underground Storage Tank Incident Report (LRST), a comprehensive listing of all reported leaking underground storage tanks within the State of North Carolina. One of the listings was identified as Fieldcrest Cannon-NC Finishing located at Highway 29 & 70, and the other was identified as Fieldcrest Cannon-NC Finishing Garage located at Highway 29 North & 150. Based on the database information and information obtained during the site inspection, these two listings appear to refer to the removal of the 550-gallon and 2,000-gallon gasoline/diesel USTs and the 3,000 gallon kerosene UST discussed in detail above.

We have performed a Phase I Environmental Site Assessment of the Subject Site in conformance with the scope and limitations of ASTM Practice E 1527-97. Any exceptions to, or deletions from, this practice are described in Section 9.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Site except for the following:

1. The boiler ash stockpile area is located adjacent to the west site boundary and an abandoned school house (this is an old, abandoned school house located near the maintenance garage on the west side of the Subject Site). Approximately 30,000 to 35,000 cubic yards of coal combustion by-product (bottom ash and fly ash) were stored at this

location. The Alexander Company removed the ash for use as fill for the "Jake Alexander Drive Extension". Upon removal of the ash material, the site was covered with low permeability fill material and seeded. The regulatory status of this stockpile area is unknown at this time.

2. The former emergency coal storage area, located adjacent to the abandoned schoolhouse along the western site boundary, was utilized up to 1989 for the temporary storage of coal for boiler fuel use. Remnants of coal were noted along the site boundary fence during this site inspection.
3. The former 20,000-gallon No. 2 fuel oil UST site is located at the southeast corner of the Subject Site adjacent to Highway 29 and the brine and propane ASTs. According to the UST Closure Assessment Report completed by Pyramid Environmental, Inc., dated November 3, 1994, a closure assessment was completed to evaluate soils beneath the UST subsequent to removal. The laboratory analysis of soil samples collected during the Closure Assessment indicate that the soil beneath the UST is affected with petroleum hydrocarbons at concentrations above the state regulatory limits. Laboratory analysis of groundwater samples indicated the presence of chlorinated solvents and the presence of lead concentrations above 15 ppb (maximum contaminant level - MCL). According to a Site Assessment Report completed by Engineering Tectonics, P.A., dated April 19, 1995, impacted soils and groundwater appear to be located beyond the vicinity of the UST to the south and east. A Corrective Action Plan (CAP) for the 20,000-gallon UST site was completed by Pyramid Environmental, Inc. on June 5, 1997. Final approval to implement this CAP was received from the NCDEHNR by letter transmittal dated September 2, 1997. According to Mr. Josh Chandler, with Fieldcrest Cannon, this CAP has been implemented at the Subject Site including free product removal in September 1997, and sampling of monitor wells in December 1997.

4. The former 2,000 and 550-gallon gasoline/diesel UST site is located at the southeastern corner of the maintenance garage. On September 21, 1990, Pyramid Environmental, Inc. conducted a UST Closure Assessment of the two USTs. The Assessment Report concluded that further investigation of the site was needed and recommended that a Comprehensive Site Assessment (CSA) be completed. According to a Subsurface Investigation Report (Pyramid Environmental, September 8, 1991), the laboratory analysis of three groundwater samples collected from three monitor wells indicated the presence of benzene at concentrations that exceeded the North Carolina groundwater standard. The Report recommended "that further soil and groundwater investigation efforts may be required to fully define the vertical and horizontal extent of leached materials". A CSA completed by Pyramid Environmental, dated April 15, 1997, recommended a CAP for this site and remediation by natural attenuation. According to Mr. Josh Chandler, with Fieldcrest Cannon, the state requested additional information with regard to the CSA, which was forwarded to the state for review. He further stated that there has been no response to date regarding this information. There were no additional reports with regard to the former 2,000 and 550-gallon UST site available for review by Maxim at the Subject Site at the time of this inspection.
5. According to the UST Closure Assessment Report, dated December 1990, on September 21, 1990, Pyramid Environmental, Inc. conducted a UST closure assessment of a 3,000-gallon kerosene UST located at the northwestern corner of the Plant Building. The Assessment Report concluded that further investigation of the site was needed and recommended that a comprehensive site assessment (CSA) be completed. A Subsurface Investigation Report (Pyramid Environmental, September 14, 1991) recommended that the monitoring well in this area be sampled for the next seven quarters and a quarterly report be prepared and submitted to the NCDEHNR. There were no additional reports with

regard to the former 3,000-gallon UST site available for review by Maxim at the Subject Site at the time of this inspection.

6. Diesel-like odors were detected from subsurface soils associated with the installation of a conveyor belt assembly near the center of the Plant Site during August 1997. An investigation into the origin of the odors indicated the presence of a previously unknown, and abandoned, 550 gallon UST. A small quantity of sludge and residual diesel product were removed from the UST and the steel UST was subsequently removed from the Plant Site tract. The UST removal was reportedly supervised by A & D Environmental located in High Point, North Carolina. No copy of this report was available for review by Maxim at the Subject Site at the time of this inspection.
7. During soil excavation activities for the construction of the foundation structure for the Claricone, the construction contractor encountered buried solid waste materials including construction debris, wood, shop rags and black ash. According to on-site personnel, the Claricone is located above an inactive and abandoned former burn pit/landfill for the Subject Site. The specific types of waste materials that were buried and subsequently burned at the site are unknown. The burn pit/landfill was utilized for an unknown period of time prior to 1984 for the dumping and subsequent burning of waste materials generated at the Subject Site. According to Mr. Richard Shoaf, with North Carolina Finishing Company, this burn pit/landfill was utilized for the disposal of paper, cardboard and remnant cloth materials and was approximately 75 square feet in size when he began work at the facility in 1962. He was unsure of other materials that may have been placed in this burn pit/landfill. No removal of waste material from the burn pit/landfill area has been conducted in the past. The regulatory status of this landfill is unknown at this time.

8. The active construction debris landfill is located adjacent to the WWTP. Construction debris including bricks and wood fragments are placed into this landfill. This landfill is less than one acre in size. According to personnel at Fieldcrest Cannon, it was believed that North Carolina regulations do not require that construction debris landfills, less than one acre in size, be permitted with the state. According to Mr. Bill Hocutt, with the North Carolina Division of Waste Management - Solid Waste Section, Construction and Demolition (C & D) Landfills must be permitted with the state regardless of size, however, Land Clearing and Inert Debris (LCID) Landfills, less than 2 acres, do not require permitting with the state (15A NCAC 13B.0563). Mr. Hocutt further stated that when determining the landfill type, it is helpful to refer to the definition of Beneficial Fill (15A NCAC 13B.0562(1)) which states that no permit is required for beneficial fill when *the fill material consists only of inert debris strictly limited to concrete, brick, concrete block, uncontaminated soil, rock and gravel.*
9. The inactive landfill is located south of the WWTP. This landfill has not been active for three to four years. According to Mr. Richard Shoaf, with North Carolina Finishing Company, construction debris (including bricks and wood) from the NCF Plant was placed into the landfill. The landfill was later covered with fill material and seeded. Mr. Shoaf further stated that this landfill was less than one acre in size. The regulatory status of this landfill is unknown at this time.
10. The textile mill contains many drains within the manufacturing buildings for the collection of washwater and spills. All waste water collected by floor drains is routed into the on-site WWTP for treatment. According to Mr. James Ogle, Plant Manager, testing has been performed on the waste water pipes to determine that all pipes do discharge to the WWTP. He stated that the pipes tested did discharge to the WWTP, however, some evidence of leakage from some of the pipes was noted during the testing activities.

11. Historically, hydraulic oils often contained PCBs and older hydraulic equipment such as elevators and lifts may contain PCBs. Two older elevators were observed inside the facility buildings. Facility personnel stated that the elevator near the dye mixing area contains hydraulic oil.

Based upon the results of the foregoing assessment, Maxim offers the following recommendations with regard to the findings and conclusions identified above:

1. The regulatory status of the boiler ash stockpile area should be determined. A subsurface investigation is warranted in this area to assess the presence or absence of environmental impairment, including the laboratory analysis of polycyclic aromatic hydrocarbons (PAH) and metals at a minimum.
2. Coal remnants identified in the former emergency coal storage area should be removed and disposed properly.
3. Ensure the continued implementation of the 20,000-gallon UST site CAP.
4. Upon receipt of a response from the state with regard to the 550 and 2,000 gallon UST site, ensure that recommendations from the state are implemented.
5. The current regulatory status of the 3,000-gallon kerosene UST site should be determined. If this site has not been closed by the state, request closure if applicable.
6. Unless a report containing laboratory analysis of soil samples collected from the excavation of the 550-gallon tank is forthcoming from A & D Environmental, and these analyses

indicate that a release did not occur from this tank, a subsurface investigation is warranted in this area to assess the presence or absence of environmental impairment.

7. The regulatory status of the burn pit/landfill underneath the Claricone should be determined through the North Carolina Division of Waste Management. Dependant upon the regulatory status determination, a subsurface investigation in the area of the burn pit/landfill may be warranted.
8. The regulatory status of the active construction debris landfill located adjacent to the WWTP should be determined through the North Carolina Division of Waste Management. Dependant upon the regulatory status determination, a subsurface investigation in the area of the active construction debris landfill may be warranted.
9. The regulatory status of the inactive landfill located south of the WWTP should be determined through the North Carolina Division of Waste Management. Dependant upon the regulatory status determination, a subsurface investigation in the area of the inactive landfill may be warranted.
10. In order to assess the absence or presence of environmental impairment to the Subject Site from on-site waste water pipe leaks, a subsurface investigation would be warranted including, but not limited to, laboratory analysis for chlorinated solvents and metals.
11. Hydraulic oil contained in the elevator near the dye mixing area should be tested for PCBs and the elevator vicinity should be inspected for evidence of hydraulic oil leaks.

Although not an environmental concern at this time, only a few of the on-site ASTs have containment dikes to contain the contents of the tanks in the event of a release or rupture

including; the diesel, waste oil, and unleaded fuel ASTs located at the garage, the No. 2 fuel oil AST located behind the power plant, and the reductone dye AST located in Dye No. 2 unit. The other on-site ASTs lack secondary containment. Maxim recommends that proper secondary containment be established due to regulatory compliance issues for those on-site ASTs currently lacking secondary containment. Secondary containment currently existing on ASTs should be reviewed for adequacy. No apparent environmental impact requiring further investigation or remediation was observed due to the lack of secondary containment during the site inspection.

2.0 INTRODUCTION AND SCOPE OF SERVICE

In accordance with the proposal dated December 12, 1997, and the Master Services Agreement dated July 26, 1996, between Maxim Technologies, Inc. (Maxim) and the Pillowtex Corporation, Maxim performed an Environmental Site Assessment (ESA) of the referenced property (hereinafter, the "Subject Site") for Gardere & Wynne, L.L.P.

This report is an instrument of service of Maxim and includes limited research, a review of specified and reasonably ascertainable listings and a Subject Site reconnaissance to identify "recognized environmental conditions" in general accordance with the American Society for Testing and Materials (ASTM) Standard E1527-97; however, this ESA may reflect additional or reduced services or service enhancements requested or authorized by the Client. "Recognized environmental conditions" are defined under the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products on a site under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property." Maxim's ESA was performed in accordance with generally accepted practices of the profession undertaken in similar studies at the same time and in the same geographical area, and Maxim observed that degree of care and skill generally exercised by the profession under similar circumstances and conditions.

3.0 SUBJECT SITE DESCRIPTION

The Subject Site is located at the intersection of Highway 29 North and Fieldcrest Cannon Lane (Main Street) in Spencer, North Carolina, as illustrated on the Subject Site Vicinity Map (Figure 1). The Subject Site is currently occupied by North Carolina Finishing Company (NCF), a division of Fieldcrest Cannon, Inc. North Carolina Finishing Company is a textile mill (wet finishing plant) involved in the continuous dyeing and finishing of fabric (grey) goods. The Subject Site also receives contract orders for the dyeing and finishing of fabrics for companies such as Westpoint/Pepperel, Stevens, Colortex, Springs and J. P. Stevens. The Subject Site consists of two tracts; (1) a Plant Site tract consisting of 37 acres and containing the manufacturing operations and (2) a Wastewater Treatment Plant (WWTP) tract consisting of 61 acres and containing a clubhouse, and outbuildings (office for WWTP). Reference As-Built & Boundary Surveys.

The Subject Site utilizes the following five types of dyes; sulfur, naphtha, vat, disperse, pigment, and exhaust dye. Adjoining properties consist of the Yadkin River to the North and East, vacant residential lots and residential houses to the west, and Interstate 85 to the south. For purposes of this ESA, the term "adjoining property" as defined by the ASTM standard, means properties which border or are contiguous or partially contiguous with the Subject Site or would be so but for a street, road or other public thoroughfare separating them.

4.0 RECORDS REVIEW

4.1 Historical Use Information

Historical use information for the Subject Site and adjoining properties was obtained from reviewing reasonably ascertainable historical sources such as ownership information, aerial photographs, and additional sources listed below. Uses of the Subject Site are referenced from

the present back until 1917 using reasonably ascertainable standard historical sources, as noted below.

4.1.1 Review of Aerial Photographs

Reasonably available aerial photographs depicting development of the Subject Site and vicinity were reviewed at periodic intervals, as summarized below. Evaluation of aerial photographs is controlled by aerial photograph scale and quality. Aerial photographs were obtained from the Natural Resources Conservation Service, Salisbury, North Carolina for the years 1936, 1950, 1956 and 1981. Copies of the aerial photographs are presented in Appendix C of this report.

- 1936 A partial view of the textile mill is evident. Identifiable features include the secondary process water basin located west of the mill, the schoolhouse, and limited development south of Highway 29 where the WWTP now exists.
- 1950 The textile mill facility essentially appears as it exists today with several production and warehouse buildings, primary and secondary process water storage basins, and further development on the land now occupied by the WWTP.
- 1956 Similar to 1950 view.
- 1981 The textile mill facility appears fully developed with production and warehouse buildings, primary and secondary process water storage basins, complete development of the WWTP including mixing and aeration basins, four clarifier basins, and two sludge removal settling basins. The construction debris landfill located immediately adjacent to the WWTP is also evident.

A review of the aerial photographs indicates that the textile mill (Plant Site) facility has essentially been developed as it appears today since at least 1950. The WWTP has been fully developed as it appears today since at least 1981.

4.1.2 City Directories

City directories were not reviewed due to the absence of a public library in Spencer, North Carolina.

4.1.3 Fire Insurance Maps

In the late nineteenth century, companies began preparing maps for use by fire insurance companies. These maps indicate construction materials of specific structures in developed urban areas. With the advent of retail gasoline service stations, the approximate locations of tanks were noted, often without AST or UST designations. These maps were updated and expanded geographically periodically through the twentieth century.

Based upon Maxim's experience in this area, the Subject Site is not located in an area typically referenced by fire insurance maps. Consequently, fire insurance maps were not requested for this project.

4.1.4 Historical Interviews

Interviews with persons familiar with the Subject Site were conducted to obtain information pertinent to the environmental evaluation of the Subject Site.

Mr. James W. Ogle, Plant Manager, North Carolina Finishing Company, Mr. Josh Chandler, Environmental Engineer and Mr. Roger H. Settlemyer, Environmental Engineer, Fieldcrest Cannon, Inc. were interviewed regarding the Subject Site and subject site vicinity. In addition, Mr. Wally Elston, Technical Manager, Maintenance and Industrial, Services, Inc. and Mr. Carlie Goforth, WWTP Manager, North Carolina Finishing Company, were interviewed regarding the Subject Site history.

4.1.5 Historical Summary

According to a review of aerial photographs and interviews with individuals familiar with the Subject Site, it appears that historically, the Subject Site has been a textile mill since at least 1917. Since 1917, the Subject site has gone through dozens of additions and renovations.

4.2 Physical Setting Information

4.2.1 Topography

The topography of the Subject Site is generally flat, with the regional topographic gradient trending to the northeast. Surface drainage in the subject area is anticipated to flow to the north-northeast in the direction of the Yadkin River, located approximately 500 feet to the north-northeast.

4.2.2 Soil Conditions

According to the Soil Survey Field Sheet No. 37159-178-90 for Rowan County (map completed in January 1991), USDA Soil Conservation Service (unpublished), the Subject Site is located on the soils of the Urban Land (Loamy). According to Mr. R. Bruce Rider, District Conservationist,

Rowan County Soil and Water Conservation District, Salisbury, North Carolina, the soils present at the subject site consist of urban soils which are primarily reworked surficial soils due to farming or construction activities (commercial and/or residential development) and identification is not practical. Prior to the reworking of the surficial soils, the soil types in the study area consisted of the Gaston and Pacolet Series. The Gaston Series consists of very deep, well drained, moderately permeable soils on ridges and side slopes of the Piedmont uplands. They formed in residuum weathered from mixed intermediate and mafic crystalline rock such as hornblende, gneiss, quartz diorite, gabbro, and hornblende schist. Slope ranges from 2 to 25 percent. The Pacolet Series consists of very deep, well drained, moderately permeable soils that formed in material weathered mostly from acid crystalline rocks of the Piedmont uplands. Slopes commonly are 15 to 25 percent but range from 2 to 80 percent.

4.2.3 Subject Site Geology

According to the North Carolina State Geological Map, 1987, the Subject Site is located on a weathered bench of bedrock along the Yadkin River. Bedrock in the area is a pink, massive to weakly foliated, granite of the Salisbury Plutonic Suite.

4.2.4 Regional Groundwater Conditions

Groundwater occasionally occurs in shallow, discontinuous or "perched" water-bearing units where the soils are in contact with the unweathered bedrock. These shallow units are infrequently utilized, but are the water-bearing zones with the potential to be impacted by releases from UST facilities or surface spills. Flow direction in these units is highly variable, but is generally toward the nearest down gradient water body (Yadkin River) and can be approximated by observing the surface topography. Recharge areas for these perched aquifers are very localized, and they can

be influenced by surface development of impervious cover (buildings, parking lots, roads), major road construction (underpasses, utility trenches), and variations in annual rainfall.

According to the Corrective Action Plan (CAP) for the 20,000 gallon fuel-oil UST area located at the Site prepared by Pyramid Environmental, Inc., dated June 5, 1997, the depth to groundwater is approximately 22 to 30 feet below ground surface and the groundwater gradient and direction is 2.75 degrees to the northeast. The estimated groundwater flow velocity is 0.5 to 30.8 ft./yr. and the hydraulic conductivity ranges from 4.07×10^{-6} to 2.00×10^{-7} ft/sec.

4.2.5 Floodplain Information

Floodplain information was not available for the City of Spencer at the time of this report.

5.0 SUBJECT SITE RECONNAISSANCE

The objective of the Subject Site reconnaissance is to obtain information indicating the likelihood of identifying ASTM recognized environmental conditions in connection with the Subject Site to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles.

The Subject Site and adjoining properties were visually inspected on December 17 and 18, 1997, by Maxim Environmental Professional Bradley A. Morris. Mr. Morris was accompanied by Mr. James W. Ogle, Plant Manager, North Carolina Finishing Company for the inspection of the interior of the production buildings and accompanied by Mr. Wally Elston, Technical Manager, Maintenance and Industrial Services, Inc. for the inspection of the remainder of the Subject Site. The purpose of the reconnaissance was to note visual or olfactory evidence of recognized environmental conditions. Additionally, reconnaissance of adjoining properties was performed to identify land use and associated potential recognized environmental conditions. Subject Site photographs are included in the appendices of this report. The Subject Site Plan is shown as Figure 2.

5.1 Subject Site Observations

5.1.1 Subject Site Overview

The Plant Site consists of fabric dye and finishing production buildings that contain a Bleach Department, Dye Unit Nos. 1 and 2, a Finishing Department, a Put Up Department, a shipping warehouse, the shipping and receiving Docks, the boiler room, the coal storage area, the process water settling/storage reservoir, guard and personnel offices, the maintenance garage, above-ground storage tanks (ASTs), the "Claricone" water filter (under construction), an inactive burn pit/landfill, a former boiler ash stockpile, a former emergency coal storage are, a former 20,000-gallon No. 2 fuel oil UST site, a former 2,000 and 550-gallon gasoline/diesel UST site, a former 3,000-gallon kerosene UST site, and a former 550-gallon UST site. The total square footage of the dye and finishing production buildings that are present on the Plant Site is 463,235 feet. The WWTP Site contains an active construction debris landfill, an inactive landfill, a WWTP, sludge application acreage, and a clubhouse.

5.1.2 Description of Specific Subject Site Features

Plant Site

The Bleach Department consists of the Continuous Bleach Range No. 1, Open Width Bleach Range, Continuous Bleach Range No. 3, Mercerizer No. 1, and Mercerizer No. 3. The Continuous Bleach Range No. 1 consists of a four stage rope bleach (hydrogen peroxide) range with 120-inch open width brusher and singer and desize pad. The equipment is computer controlled and consists of the following; desize, acid, caustic scour, and peroxide J-Boxes with two Rodney Hunt Tensitrol washers after each J-Box. The Open Width Bleach Range consists of a three stage 72-inch open width bleach range capable of finishing fabrics up to 67 inches wide. The unit is utilized for the open width preparation of dyed fabrics and contains singe, desize,

caustic scour, and peroxide J-Boxes with open width washers. The Continuous Bleach Range No. 3 is a three stage rope bleach range with 120-inch open width singer and desize pad. Equipment includes desize, caustic scour and peroxide J-Boxes with Tensitrol washers. The Mercerizer No. 1 unit consists of a 120-inch Benninger mercerizer for the merceration of woven fabrics from 40 inches up to 116 inches. The primary purpose of mercerizing a fabric is to increase dye yield, fiber luster, and provide a smoother appearance). The equipment is computer controlled and consists of a pin tenter section to allow for overfeeding. The Mercerizer No. 3 unit consists of a 72-inch conventional clip mercerizer for the merceration of woven fabrics from 40 inches to 68 inches. The Mercerizer No. 3 equipment is not computer controlled.

Dye Unit No. 1 consists of Continuous Dye Range No. 1, Continuous Dye Range No. 3, and the Pigment Range. The Continuous Dye Range No. 1 and 3 consists of a 72-inch pad steam thermosol range capable of dyeing woven goods to a maximum width of 67 inches with all continuous dye types including vats, sulfurs, reactives, pigments, dispersed, and naphthols. The Pigment Range consists of a 72-inch pigment range used primarily for dyeing pastel shades with pigment dyes for dyeing fabric up to 67 inches in width.

Dye Unit No. 2 consists of Finishing Range No. 9, Finishing Range No. 10, Finishing Range No. 11, Pad Batch, and Jigs. The Finishing Range No. 9 unit consists of a 120-inch wide clip frame including mangle, vacuum pump, dry cans, and finish pad with 120-foot clip frame. This unit can apply a wide variety of finishes to fabric including Crease Resistant Finishes, water repellants, soft to firm finishes, and prepare the fabric for dye/print finish and pure finishes. The Finishing Range No. 10 is the same as Range No. 9 except for a 90-foot clip frame house. Finishing Range No. 11 contains a 120-inch pad steam thermosol range capable of dyeing woven goods to a maximum of 114 inches with all continuous dye classes which include vats, sulfurs, reactives, naphthols, pigments, and dispersed. The Pad Batch unit consists of a 120-inch pad batching system capable of dyeing woven fabrics up to 114 inches wide. This unit is primarily used for dyeing

with fiber reactive dyes and can be used for cold pad batch bleach of fabric. The Jig unit is used for dyeing nylon and satin, 100% cotton, and polyester blends. The equipment is also utilized for the washing of fabrics, adjusting shades, removal of finishes, and spot and stain removal.

The Finishing Department consists of Finishing Range Nos. 3 through 5, Nos. 7 and 8, Steam Frame Nos. 2 and 3, Sanforizers, Sanders and Sueders, and Calenders. The Finishing Range units consist of varying sizes of clip frames with the capability of finishing varying sizes of fabrics. The units consist of a mangle, vacuum pump, dry cans and finish pads. The ranges are capable of finishing and tinting fabrics. The Steam Frame units are utilized for straightening bow or bias in fabric and pulling fabric to width. The Steam Frame No. 3 has been updated to provide additional processing capabilities to include in-line printing, splitting of fabrics, inspection, and both winding and batching operations. The Sanforizer unit is utilized to shrink fabric and to provide an improved appearance. The Sander and Suede unit is utilized to sand the face of fabrics to provide a brushed appearance and soft hand. The Calender Unit Nos. 2, 4, and 5 are utilized to apply pressure on the fabric to change the appearance. Fabrics can be altered to display a polished or matted appearance or embossing a pattern into the fabric. Calender Nos. 6 and 7 are hot calenders and are utilized to provide a smoother appearance to the fabric.

The Put Up Department consists of six Tuber Inspection Tables, ten Winder Inspection Tables, and two Satin Inspection Tables. The six Tuber Inspection Tables and ten Winder Inspection Tables are utilized for the final inspection of a wide range of fabrics prior to packing and shipping the fabrics to the customer. The two Satin Inspection Tables are utilized for the final inspection of satin and nylon taffeta fabrics prior to packing and shipping the fabrics to the customer.

The shipping warehouse is utilized for the temporary storage of finished goods prior to shipping the fabrics to the customer. The warehouse is located at the northwest corner of the Subject Site

and immediately adjacent to the office. The warehouse measures 220 feet x 240 feet and occupies 52,800 square feet.

The shipping and receiving docks are located at the shipping warehouse and adjacent to Dye Units Nos. 1 and 2, respectively.

The boiler room is located adjacent to the coal storage area and process water settling/storage reservoir. The boiler room consists of two coal-fired steam generation units that supply steam to the production buildings. The boiler room has the capability to utilize coal or natural gas for fuel. The NCF Plant Site is permitted to construct and operate air emission sources and/or cleaning devices for the discharge of the associated air contaminants into the atmosphere (Air Permit No. 3161R6). According to Mr. Roger Settlemeier, Fieldcrest Cannon, Inc./Pillowtex Corporation, the boiler room has been sited in the past by the NCDEHNR for violations relating to the operation of the electrostatic boilers resulting in air emission discharge violations.

The coal storage area is located adjacent to the boiler room. Coal supplies for the two boilers are delivered via rail car and temporarily stored in the rail cars pending off-loading and use.

The process water settling/storage reservoir is located along the northeast boundary of the Subject Site. Water is withdrawn from the Yadkin River and pumped into the process water settling/storage reservoir. Water initially enters a settling unit within the reservoir to allow the removal of fines from the water prior to being used at the Subject Site for both process water and emergency fire water.

The office building is located adjacent to the shipping warehouse and contains administrative and plant management offices. The guard and personnel offices are located at the entrance to the

Subject Site and are within a single building. The Subject Site has security guard services to continuously monitor and screen personnel and vehicles entering the plant.

The maintenance garage is located at the southwest boundary of the Subject Site. The garage is utilized for the repair and maintenance of plant vehicles. Two ASTs containing diesel and unleaded gasoline are located adjacent to the garage. In addition, five 55-gallon drums labeled "soil cuttings" are located along a chain-link fence located west of the garage area. The maintenance garage is the location of the former 2,000 and 550-gallon gasoline/diesel USTs.

Thirty-one (31) ASTs are located throughout the Subject Site. Refer to the Section below titled, **Storage Tanks and Associated Equipment**, for a brief summary of the ASTs located at the Site.

A "Claricone" water filter is currently under construction at the north end of the Subject Site. The Claricone will be utilized to filter fines from the process water prior to use. During soil excavation activities for the construction of the foundation structure for the Claricone, the construction contractor encountered buried solid waste materials including construction debris, wood, shop rags and black ash. According to Mr. James W. Ogle, Plant Manager, the Claricone is located above an inactive and abandoned former burn pit/landfill for the Subject Site. In addition, according to Mr. Ogle, the specific types of waste materials that were buried and subsequently burned at the site are unknown. The burn pit/landfill was utilized for an unknown period of time prior to 1984 for the dumping and subsequent burning of waste materials generated at the Subject Site. According to Mr. Richard Shoaf, with North Carolina Finishing Company, this burn pit/landfill was utilized for the disposal of paper, cardboard and remnant cloth materials and was approximately 75 square feet in size when he began work at the facility in 1962. He was unsure of other materials that may have been placed in this burn pit/landfill. No removal of waste material from the burn pit/landfill area has been conducted in the past.

The former boiler ash stockpile is the location of an area utilized for the stockpiling of boiler ash from the Subject Site boiler room. The boiler ash stockpile is located adjacent to the west site boundary and the on-site abandoned school house. According to a memorandum from Mr. Van Rowell to Mr. Mike Abba, Fieldcrest Cannon, Inc., Kannapolis, North Carolina, dated October 21, 1996, approximately 30,000 to 35,000 cubic yards of coal combustion by-product (bottom ash and fly ash) were stored at the site. Upon receipt of designation as beneficial fill by the North Carolina Department of Transportation (NCDOT), a proposal from The Alexander Company was received by NCF for the removal of the ash for use as fill for the "Jake Alexander Drive Extension". Prior to removal of the ash material, NCF implemented an approved (Division of Land Management) Sediment and Erosion Control Plan consisting of silt fences and the placement of rip-rap within the major surface water drainage feature for the site. Upon removal of the ash material, the site was covered with low permeability fill material and seeded. According to Mr. Roger Settlemyer, Fieldcrest Cannon, Inc./Pillowtex Corporation, the boiler ash from the boiler room is now transported off-site to "Plant 1 Landfill" located in Kannapolis, North Carolina.

The former emergency coal storage is located adjacent to the abandoned schoolhouse along the western site boundary. The site was utilized up to 1989 for the temporary storage of coal for boiler fuel use. During the site reconnaissance, the perimeter of the coal storage area contained remnant coal fragments and the area appeared to have been seeded.

The former 20,000-gallon No. 2 fuel oil UST site is located at the southeast corner of the Subject Site adjacent to Highway 29 and the brine and propane ASTs. According to the UST Closure Assessment Report completed by Pyramid Environmental, Inc., dated November 3, 1994, a closure assessment was completed to evaluate soils beneath the UST subsequent to removal. Four soil samples were collected on September 7, 1994, beneath the UST and three soil samples were collected beneath product lines. All soil samples were analyzed TPH. The laboratory results

indicated that the soil beneath the UST is affected with petroleum hydrocarbons at concentrations above the state regulatory limits.

According to the Site Assessment Report completed by Engineering Tectonics, P.A. (ETPA), dated April 19, 1995, ETPA conducted a limited soil assessment in the vicinity of the former 20,000-gallon UST excavation to determine the horizontal and vertical extent of impacted soils and to characterize the groundwater in the vicinity of the former tank. A total of nine soil samples were collected on February 6, 1995 from the site utilizing direct push technology.

Groundwater monitoring well MW-1 was installed to a depth of 40 feet on February 6 and 7, 1995. Field observations during the installation of MW-1 indicated groundwater had been impacted with petroleum hydrocarbons. Based on this information, two additional monitoring wells, MW-2 and MW-3, were installed. During the collection of groundwater samples from the three wells, a measurement for free product indicated two inches of free product in MW-2 and five inches of product in MW-1. Laboratory analysis of the nine soil samples indicated concentrations of total petroleum hydrocarbons (TPH) and total petroleum fuel hydrocarbons (TPFH) below detection limits in seven of the nine samples. The remaining two soil samples had concentrations of TPH of 3,804 parts per million (ppm) and 3,116 ppm. Laboratory analysis of the three groundwater samples indicated concentrations of semi-volatile organic compounds in MW-1 and MW-3 and purgeable aromatic volatiles in MW-3. The assessment report concluded that impacted soils and groundwater appear to be located beyond the vicinity of the UST to the south and east.

A Corrective Action Plan (CAP) for the 20,000-gallon UST site was completed by Pyramid Environmental, Inc. on June 5, 1997. In this CAP, Pyramid Environmental recommended remediation of the soil and groundwater at the 20,000-gallon UST site by natural attenuation. Pyramid Environmental further recommended that reasonable attempts should be made to install

two additional shallow wells and one deep well in the area downgradient from the leading edge of the plume. Pyramid also recommended that all monitor wells be sampled quarterly for the first year after the CAP is approved and bi-annually thereafter. Pyramid recommended continued monthly or semi-monthly monitoring and removal of free product. According to the CAP, the site will be re-evaluated after five years and recommendations will be made with respect to closing the site or continuing or changing the monitoring and/or remediation programs.

Final approval to implement the CAP was received from the NCDEHNR by letter transmittal dated September 2, 1997. The regulatory approval of the CAP is contingent upon several conditions and schedules as follows; monitoring wells MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-10, and MW-12 must be sampled semi-annually in June and December of each year and analyzed for the CAP Sampling Requirements Schedule; aggressive Fluid Vapor Recovery on MW-1, MW-2, MW-4, and MW-10 in March and September of each year; and the preparation of semi-annual reports. According to Mr. Josh Chandler, with Fieldcrest Cannon, this CAP has been implemented at the Subject Site including free product removal in September, 1997, and sampling of monitor wells in December, 1997.

The former 2,000 and 550-gallon gasoline/diesel UST site is located at the southeastern corner of the maintenance garage. On September 21, 1990, Pyramid Environmental, Inc. conducted a UST Closure Assessment of the two USTs. Upon removal of the UST, a "strong" petroleum odor was evident from the tank excavation and subsequent soil screening efforts indicated soils containing high concentrations of volatile organic compounds were present on the north and south tankhold excavation sidewalls. A high water table was noted at the bottom of the excavation during the tank removal project. On October 4, 1990, excavation of the soil in the vicinity of the tankhold was completed. The excavation depth was increased to approximately 20 feet. Two soil samples were collected from the bottom of the tankhold for laboratory analysis of TPH concentrations. The laboratory analytical report reported concentrations between 100 and 200 ppm for the two soil

samples. At the request of NCF, two tankhold excavation water samples were collected from each end of the tankhold. Laboratory analysis of the two water samples indicated concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) at concentrations greater than the maximum allowable standards as set forth in North Carolina Administrative Code Title 15, Subchapter 2L. On October 30, 1997, Pyramid Environmental collected four soil samples from the sidewall of the excavation with a hand auger. The laboratory analysis of the four soil samples for TPH indicated concentrations less than 2 ppm for the east, south, and west sidewalls. The concentration of TPH in the soil sample collected from the north sidewall was 1,204 ppm. On October 31, 1990, the tank excavation was filled with clean fill material. The Assessment Report concluded that further investigation of the site was needed and recommended that a comprehensive site assessment (CSA) be completed.

Pyramid Environmental, Inc. completed a Subsurface Investigation Report, dated September 8, 1991, in the vicinity of the former 2,000 and 550-gallon gasoline USTs to determine the extent of possible soil and groundwater contamination. During June 1991, Pyramid Environmental installed three groundwater monitoring wells at the site. Soil samples were collected from each well at a depth of 15 feet. In addition, three soil samples were collected from MW-3 at depths of 10, 20 and 25 feet. Laboratory analysis of the six soil samples for TPH indicated concentrations below the laboratory detection limit. No free product was observed during the drilling or sampling of the three monitor wells. According to the Subsurface Investigation Report, the laboratory analysis of groundwater samples collected from the three monitoring wells did indicate the presence of benzene at concentrations that exceeded the North Carolina groundwater standard. The Report recommended "that further soil and groundwater investigation efforts may be required to fully define the vertical and horizontal extent of leached materials". In addition, site specific aquifer characteristics may need to be determined. The Report further stated that "because of the likely large volume of petroleum containing soil and groundwater, it is likely that an in-situ type of remediation method will be most effective".

A CSA completed by Pyramid Environmental, dated April 15, 1997, recommended a CAP for this site and remediation by natural attenuation. According to Mr. Josh Chandler, with Fieldcrest Cannon, the state requested additional information with regard to the CSA, which was forwarded to the state for review. He further stated that there has been no response to date regarding this information. There were no additional reports with regard to the former 2,000 and 550-gallon UST site available for review by Maxim at the Subject Site at the time of this inspection.

According to the UST Closure Assessment Report, dated December 1990, on September 21, 1990, Pyramid Environmental, Inc. conducted a UST closure assessment of a 3,000 gallon kerosene UST located at the northwestern corner of the Plant Building. Upon removal of the UST, a "strong" petroleum odor was evident from the tank excavation. A high water table was noted at the bottom of the excavation during the tank removal activities. On October 4, 1990, excavation of the soil in the vicinity of the tankhold was completed. The excavation depth was approximately 20 feet. Two soil samples were collected from the bottom of the tankhold for laboratory analysis of TPH concentrations. The laboratory analytical report reported concentrations of 45 ppm and 163 ppm from the two soil samples. On October 31, 1990, the tank excavation was filled with clean fill material. The Assessment Report concluded that further investigation of the site was needed and recommended that a comprehensive site assessment (CSA) be completed. A copy of this CSA has been requested from NCF, however it was not available at the time of submittal of this report to Pillowtex.

Pyramid Environmental, Inc. completed a Subsurface Investigation Report, dated September 14, 1991, in the vicinity of the former 3,000 gallon UST to determine the extent of possible soil and groundwater contamination. On June 23 1991, Pyramid Environmental installed one downgradient monitor well on the site. A soil sample was collected from the well at a depth of 15 feet. According to the Subsurface Investigation Report, the laboratory analysis of the soil sample for TPH did not indicate concentrations of TPH above the laboratory detection limit.

According to the Subsurface Investigation Report, the laboratory analysis of a groundwater sample collected from the monitoring well "did not indicate significant chemicals" regulated by NCDEHNR. The Report recommended that the monitoring well be sampled for the next seven quarters and a quarterly report be prepared and submitted to the NCDEHNR. The location of the downgradient monitoring well was not found during the site reconnaissance. There were no additional reports with regard to the former 3,000-gallon UST site available for review by Maxim at the Subject Site at the time of this inspection.

According to Mr. Wally Elston, Maintenance and Industrial, Inc., on a Saturday during August 1997, diesel-like odors were detected from subsurface soils associated with the installation of a conveyor belt assembly near the center of the Plant Site. An investigation into the origin of the odors indicated the presence of a previously unknown, and abandoned, 550 gallon UST. According to Mr. Elston, a small quantity of sludge and residual diesel product were removed from the UST and the steel UST was subsequently removed from the Plant Site. The UST removal was reportedly supervised by A & D Environmental located in High Point, North Carolina. A copy of the UST closure report, if prepared, has been requested from Fieldcrest Cannon, Inc. (Mr. Josh Chandler). However, the report has not been made available to Maxim at the time of the preparation of this report.

WWTP Site

The WWTP Site tract contains the NCF Waste Water Treatment Plant. The WWTP has a total capacity of 4.25 million gallons of waste water and sewage. The WWTP is currently treating approximately 2.5 million gallons. The WWTP receives all waste water from the NCF Plant, treats the waste water for pH, and discharges the effluent into the Yadkin River (NPDES Permit No. NC0005487). The WWTP contains a mixing basin, aeration basin, clarifiers, and sludge removal basins. The WWTP also contains several inactive, concrete lined, sludge drying beds. The WWTP has been cited on several occasions by the NCDEHNR for violations relating to acute

toxicity resulting in a non-permitted effluent discharge, insufficient reported values for specific effluent characteristics within the WWTP's self-monitoring reports, and insufficient data contained in the WWTP's Comprehensive Site Assessment (CSA). Several of the violations have resulted in civil penalties being assessed.

The active construction debris landfill is located adjacent to the WWTP. Construction debris including bricks and wood fragments are placed into the landfill. The landfill is less than one acre in size. According to personnel at Fieldcrest Cannon, it was believed that North Carolina regulations do not require that construction debris landfills, less than one acre in size, be permitted with the state. According to Mr. Bill Hocutt, with the North Carolina Division of Waste Management - Solid Waste Section, Construction and Demolition (C & D) Landfills must be permitted with the state regardless of size, however, Land Clearing and Inert Debris (LCID) Landfills, less than 2 acres, do not require permitting with the state (15A NCAC 13B.0563). Mr. Hocutt further stated that when determining the landfill type, it is helpful to refer to the definition of Beneficial Fill (15A NCAC 13B.0562(1)) which states that no permit is required for beneficial fill when the *fill material consists only of inert debris strictly limited to concrete, brick, concrete block, uncontaminated soil, rock, and gravel.*

The inactive landfill is located south of the WWTP. This landfill has not been active for three to four years. According to Mr. Richard Shoaf, with North Carolina Finishing Company, construction debris (including bricks and wood) from the NCF Plant were placed into the landfill. The landfill was later covered with fill material and seeded. Mr. Shoaf further stated that this landfill was less than one acre in size.

The WWTP Sludge Application Acreage is located south of the WWTP. Processed organic sludge from the WWTP is applied by a subcontractor (Advanced Waste Management) to the Site acreage by the injection and tilling method. Subsequent to sludge application, the acreage is seeded for

erosional control. Approximately 500,000 gallons of sludge from the WWTP was applied to the acreage in August 1997. In addition, WWTP sludge is applied to approximately 500 acres located on several off-site farms. The WWTP Site also contains a clubhouse for social activities during company sponsored events.

Topographic Observations

The Plant Site is located on a low gradient, weathered bench of granite bedrock along the Yadkin River. The WWTP Site is located on a gently sloping to hilly tract. The local topography in the Subject Site area has been altered by grading and filling although the regional topography is graded to the northeast.

Source of Drinking Water

According to Mr. Floyd Rusher, Chemist, City of Salisbury Water Department, the City of Salisbury provides 100 percent of the drinking water to the City of Spencer which supplies water to the Subject Site. According to Mr. Rusher with the City of Salisbury the drinking water meets all Federal and State standards for drinking water quality.

Sewage Disposal/Septic System

According to Mr. James W. Ogle, Plant Manager, and Mr. Wally Elston, Technical Manager, all plant sewage is treated by the on-site sewage/waste water treatment plant.

Hazardous Chemicals and Petroleum Products associated with Operations other than Storage Tanks

The Subject Site contains typical inventories of chemicals utilized in the dyeing and finishing of fabric goods. An extensive list of Material Safety Data Sheets (MSDS) for the chemicals used and stored at the Subject Site are maintained on-site. The MSDSs were not reviewed during the site inspection due to time restraints. The supply room located on the Subject Site contains a locked,

steel, storage locker that contained starting fluid, contact fluid, cutting oil, molyfilm lube, belt dressing and electrical tape. None of the containers within the storage locker were observed to be leaking.

Storage Tanks and Associated Equipment

A review of an inventory listing of the ASTs located at the Subject Site, supplied by the Plant Manager, indicates 31 ASTs present at the Subject Site. A breakdown of the ASTs by contents indicates the following types; liquified petroleum (LP) gas, diesel fuel, unleaded gas, alum, varsol, resin, silicate, softener, catalyst, acetic acid, 5% caustic solution, peroxide, sulfuric acid, hot water, 50% caustic solution, reductone and waste oil. Only a few of the ASTs have containment dikes to contain the contents of the tank in the event of a release or rupture including; the diesel, waste oil, and unleaded fuel ASTs located at the garage; the No. 2 fuel oil AST located behind the power plant; and the reductone dye AST located in the Dye Unit No. 2. A complete listing of the ASTs located at the Subject Site is included in Appendix E.

Odors

No unusual odors were detected on the Subject Site at the time of the inspection. Odors noted at the Subject Site were typical chemical odors (dyes, pigments, etc.) of textile mills.

Interior and Exterior Surficial Staining or Corrosion and Stressed Vegetation

Minor interior staining was noted in various locations within the NCF Plant production areas, dye and pigment mixing areas and drum storage areas. These areas contain floor drains which discharge to the on-site WWTP. Also see **Drains and Sumps** below.

Drums and Other Containers of Unknown Contents

Many 55-gallon steel drums containing dyes were observed in the dye drum storage rooms associated with Dye House Nos. 1 and 2. In addition, several 55-gallon steel drums containing

equipment lubricants were observed in the plant basement. Six 55-gallon steel drums labeled with "soil cuttings" designations were observed along a fence located east of the garage area. According to Mr. James W. Ogle, Plant Manager, all drums used at the Subject Site are currently cleaned by rinsing with hot water and shipped off-site for re-cycling.

PCBs

There were several pad/pole-mounted transformers observed on the Subject Site. These transformers are owned by Duke Power. The ownership information was provided by Mr. Roger Settlemyer, Environmental Engineer, Fieldcrest Cannon. The transformers observed during the site investigation appeared to be in good condition with no evidence of transformer fluid leakage.

According to Mr. Roger Settlemyer, the Subject Site contains several electrical voltage capacitors and some contain PCBs. The volume of the capacitors is approximately two quarts and they weigh approximately 25 pounds each. Each capacitor which contains PCBs is labeled as containing PCBs. According to Mr. Settlemyer, there are no state or federal regulations which govern such capacitors. In addition, an inventory and inspection of each of the capacitors has been completed by Fieldcrest Cannon, Inc. and none of the capacitors are leaking.

Historically, hydraulic oils often contained PCBs and older hydraulic equipment such as elevators and lifts may contain PCBs. Two older elevators were observed inside the facility buildings. Facility personnel stated that the elevator near the dye mixing area contains hydraulic oil.

Heating and Cooling Systems

The offices of North Carolina Finishing Company are climate controlled by central heating and cooling. According to Mr. Wally Elston, Technical Manager, no on-site storage of freon exists at the plant.

Drains and Sumps

The textile mill contains many drains within the manufacturing buildings for the collection of washwater and spills. All waste water collected by floor drains is routed into the on-site WWTP for treatment. According to Mr. James Ogle, Plant Manager, testing has been performed on the waste water pipes to determine that all pipes do discharge to the WWTP. He stated that the pipes tested did discharge to the WWTP, however, some evidence of leakage from some of the pipes was noted during the testing activities. Stormwater is collected by drains and routed to a discharge point into the Yadkin River.

Pits, Ponds or Lagoons

The Subject Site contains one process water storage reservoir located directly east of the boiler area. The WWTP contains an equalization basin, an aeration basin, two sludge removal basins, two clarifier basins and two sludge aeration basins.

Solid Waste Disposal

Facility construction debris (wood, bricks, etc.) is disposed of in a Class D landfill located west of the WWTP. Waste oil and spent solvents generated at the Subject Site are disposed of by Safety Kleen by recycling. In addition, spent fluorescent light tubes are shipped off-site for recycle/recovery.

Wastewater Discharges

Effluent waste water is discharged into the Yadkin River at the Subject Site (NCDEHNR Permit No. NC0005487). Stormwater is also discharged into the Yadkin river (General Permit No. NCG170000).

Wells

The Subject Site is served by a municipal water supply and no drinking water wells were noted on the Subject Site at the time of inspection.

5.2 Adjoining Property Observations

Adjoining properties were visually examined from public access right-of-ways to make a cursory assessment of the current land use and its potential for recognized environmental conditions which may have impact on the Subject Site. Reconnaissance of adjoining properties was performed by viewing land use from legal boundaries or by walking upon the adjoining properties that were legally accessible. Adjoining development to the Subject Site is as follows:

North:	Yadkin River
South:	Interstate 85
East:	Yadkin River
West:	Residential single family dwellings

Review of the adjoining properties did not indicate recognized environmental conditions of concern which may impact the Subject Site.

6.0 REGULATORY REVIEW

6.1 Regulatory Review

The purpose of the records review is to obtain and review reasonably ascertainable records that will help identify recognized environmental conditions in connection with the Subject Site. For this review, records were obtained from Environmental Risk Information & Imaging Services (ERIS). As noted under ASTM, information requested and not received within 20 days after the report date will not be incorporated into this report. The approximate Minimum Search Distance

(MSD) for the Subject Site vicinity review is noted under each database listed below. Regulatory data is located within the appendices of this report.

The Subject Site was identified on the databases, as described in more detail under each database section below.

Database Search Information:

<u>Radius</u>	<u>Data Source</u>	<u>Applicable sites</u>
1 Mile	EPA National Priorities List	0
1 Mile	EPA RCRA CA	0
½ Mile	EPA RCRA TS	0
½ Mile	EPA CERCLIS	0
½ Mile	EPA NFRAP	0
¼ Mile	EPA RCRIS LG	0
¼ Mile	EPA RCRIS SG	0
.05 Mile	EPA Emergency Response Notification System (ERNS)	0
1 Mile	HWS	0
½ Mile	NCSWF	0
¼ Mile	NCRST	0
½ Mile	NCLRST	2

North Carolina Leaking Underground Storage Tanks (NCLRST)

FACILITY NAME: Fieldcrest Cannon-NC Finishing
FACILITY ADDRESS: Highway 29 & 70
FACILITY ID NO.: 370005003584
DISTANCE: 0.082 miles
FACILITY SUMMARY: On September 20, 1990, three underground storage tanks were removed and soil and groundwater contamination (gasoline and diesel) were confirmed on-site. The NCDEHNR incident No. is 16198.

FACILITY NAME: Fieldcrest-NC Finishing Garage
FACILITY ADDRESS: HIGHWAY 29N & 150
FACILITY ID NO.: 37005003587
DISTANCE: 0.082 miles

FACILITY SUMMARY: On September 21, 1990, three underground storage tanks were removed and soil and groundwater contamination (gasoline and diesel) were confirmed on-site. The NCDEHNR incident No. is 17467.

Based on the database information and information obtained during the site inspection, these two listings appear to refer to the removal of the 550-gallon and 2,000-gallon gasoline/diesel USTs and the 3,000 gallon kerosene UST discussed in detail in Section 5.1.2 of this report.

6.2 Additional Records Sources

City of Salisbury, NC

Local city departments were contacted regarding records of environmental concern for the Subject Site and Subject Site vicinity.

Mr. Frank Thomasson, with the City of Salisbury, Communication Department, was contacted concerning documented incidents of environmental concerns (i.e., underground storage tanks, hazardous releases, citations/violations, etc.) with respect to the Subject Site and vicinity. Mr. Thomasson stated that their records indicated many such emergency responses/incidents occurring on the Subject Site or in the immediate vicinity in the past. One notable emergency response occurred on March 11, 1997 when the City of Salisbury Fire Department responded to the Subject Site with a ladder fire truck to assist the local Spencer Volunteer Fire Department extinguish a roof fire at the site. On January 21, 1996, the Salisbury Fire Department responded to the Subject Site with an engine company and first responder vehicle to investigate a reported diesel odor

within the Subject Site boundary. No further information was available concerning the diesel odor or response. Other emergency responses have been related to medical emergencies, vandalism, and traffic accidents. A verbal inquiry was made to Mr. Thomasson concerning documented hazardous materials incidents within a one-half mile radius of the Subject Site. This information was not returned in time to be included in the report. A request was also made to Mr. Thomasson to provide a list of all such emergency responses at the Subject Plant during 1996 and 1997. Information returned indicating a potential environmental concern to the Subject Site will be forwarded upon receipt.

7.0 FINDINGS AND CONCLUSIONS

We have performed a Phase I Environmental Site Assessment of the Subject Site in conformance with the scope and limitations of ASTM Practice E 1527-97. Any exceptions to, or deletions from, this practice are described in Section 9.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Site except for the following:

1. The boiler ash stockpile area is located adjacent to the west site boundary and an abandoned school house (this is an old, abandoned school house located near the maintenance garage on the west side of the Subject Site). Approximately 30,000 to 35,000 cubic yards of coal combustion by-product (bottom ash and fly ash) were stored at this location. The Alexander Company removed the ash for use as fill for the "Jake Alexander Drive Extension". Upon removal of the ash material, the site was covered with low permeability fill material and seeded. The regulatory status of this stockpile area is unknown at this time.
2. The former emergency coal storage area, located adjacent to the abandoned schoolhouse along the western site boundary, was utilized up to 1989 for the temporary storage of coal

for boiler fuel use. Remnants of coal were noted along the site boundary fence during this site inspection.

3. The former 20,000-gallon No. 2 fuel oil UST site is located at the southeast corner of the Subject Site adjacent to Highway 29 and the brine and propane ASTs. According to the UST Closure Assessment Report completed by Pyramid Environmental, Inc., dated November 3, 1994, a closure assessment was completed to evaluate soils beneath the UST subsequent to removal. The laboratory analysis of soil samples collected during the Closure Assessment indicate that the soil beneath the UST is affected with petroleum hydrocarbons at concentrations above the state regulatory limits. Laboratory analysis of groundwater samples indicated the presence of chlorinated solvents and the presence of lead concentrations above 15 ppb (maximum contaminant level - MCL). According to a Site Assessment Report completed by Engineering Tectonics, P.A., dated April 19, 1995, impacted soils and groundwater appear to be located beyond the vicinity of the UST to the south and east. A Corrective Action Plan (CAP) for the 20,000-gallon UST site was completed by Pyramid Environmental, Inc. on June 5, 1997. Final approval to implement this CAP was received from the NCDEHNR by letter transmittal dated September 2, 1997. According to Mr. Josh Chandler, with Fieldcrest Cannon, this CAP has been implemented at the Subject Site including free product removal in September 1997, and sampling of monitor wells in December 1997.
4. The former 2,000 and 550-gallon gasoline/diesel UST site is located at the southeastern corner of the maintenance garage. On September 21, 1990, Pyramid Environmental, Inc. conducted a UST Closure Assessment of the two USTs. The Assessment Report concluded that further investigation of the site was needed and recommended that a Comprehensive Site Assessment (CSA) be completed. According to a Subsurface Investigation Report (Pyramid Environmental, September 8, 1991), the laboratory analysis