



**ENVIRONMENTAL ASSESSMENT**  
**Northwest Triangle**  
**City of York**  
**York County, Pennsylvania**

Prepared for:

The City of York  
Department of Economic Development  
50 West King Street  
York, Pennsylvania

Edge Environmental Inc. No. E-148  
June 1, 2004

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Principal

## **Executive Summary**

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Edge Environmental Inc. has completed an environmental assessment of an area located in the City of York known as the “Northwest Triangle” (“the site”). The purpose of this environmental assessment is to 1) identify areas of potential environmental concern within the site, 2) make recommendations for further investigation of the areas of concern to identify those requiring remediation, and 3) begin to develop an understanding of which site properties will be best suited for residential or non-residential use.

The Northwest Triangle is a 4.73-acre (+/-) area bounded to the north and west by the Codorus Creek. It consists of the following six major properties: 146-150 North Beaver Street, Keystone Color Works, 200-206 North Beaver Street, 208-236 North Beaver Street, Ohio Blenders, and York Rail. The area is served by public water, and public sewer has served it since the early 1900s.

The Northwest Triangle is currently occupied by light industrial, transportation, commercial, and residential properties. Documented historic uses of site properties include: farm equipment manufacturer (146-150 North Beaver Street and Keystone Color Works); auto dealership and construction supply distributor (146-150 North Beaver Street); organic and inorganic pigment manufacturer (Keystone Color Works); feed mills and utility pole storage yard (Ohio Blenders); service station, heating oil distributor, auto body shop, and used car dealer (208-236 North Beaver Street); coal storage yards (York Rail and Ohio Blenders); rail lines and a small switching yard (York Rail); and residential units (200-206 North Beaver Street).

No underground or aboveground storage tanks (USTs or ASTs) are registered to site properties, nor have any properties reported storage tank removals or releases to the Pennsylvania Department of Environmental Protection (DEP). Three site occupants are registered as small quantity generators of hazardous waste. This assessment discovered no documented hazardous material or waste incidents likely to have resulted in contamination of the site, and no obvious indications of soil or groundwater contamination were observed on any of the properties during site reconnaissances.

Fifteen USTs and four ASTs have been removed or abandoned at the site, and additional, undocumented USTs may be present. The tanks stored gasoline, oil, or heating oil. Nine USTs were removed from 208-236 North Beaver Street in 1987, but no confirmatory samples were collected. There is no closure documentation for the site’s other abandoned/removed storage tanks.

A large portion site was used for coal storage in the late 1800s and early-to-mid 1900s. The coal was stored on the ground surface, either uncovered or beneath wooden sheds. There is no evidence that coal ash was disposed on site. There is some published literature suggesting that shallow soils at coal storage yards can be contaminated with metals and Polycyclic Aromatic Hydrocarbons (PAHs).

Until the 1990s, Keystone Color Works chemically produced pigments using hazardous materials. Large quantities of wastewater and small quantities of waste sludge were generated at the facility. Wastewater was treated on site and discharged to the sewer system. Waste sludge was drummed and disposed at off-site landfills. Keystone Color Works now blends and packages pigments it purchases from other manufacturers, resulting in smaller quantities of hazardous materials and wastes.

From 1961 to 1980, Keystone Color Works produced pigments containing chromium and lead, elements considered to be hazardous. In 1989, the U. S. Environmental Protection Agency (EPA) investigated Keystone Color Works for its storage at the site of drums containing hazardous waste sludge. EPA determined that the drums exceeded allowable storage times, but discovered no evidence of improper waste disposal at the site. EPA then closed the case.

The interior of the Keystone Color Works building—walls, floors, pigment mixing tanks, and filter presses—is significantly pigment stained. There was no staining or evidence waste disposal on the building's exterior. The greatest potential for contamination at Keystone Color Works is to the interior of the building.

Based on the information gathered and reviewed for this assessment, six Areas of Concern (AOCs) and five Issues of Concern (IOCs) were identified. The AOCs are areas where site uses have the potential to have resulted in soil and/or groundwater contamination. The IOCs pertain to conditions or toxic materials that may be encountered inside site buildings during renovation or demolition. Recommendations for further investigation of the AOCs and IOCs are presented as Section 13.

#### **Areas of Concern**

AOC 1 – Rail Yard. Surface soil and rail ballast may be contaminated with diesel fuel, oil, and herbicides and, to a lesser extent, paint, solvents, and creosote from rail ties.

AOC 2 – Coal Yard No. 1. Shallow soils may have metals and PAHs from coal storage. Soils at the former gasoline tank may have residual gasoline contamination. Additional undocumented USTs may be present.

AOC 3 – Utility Pole Storage Yard. Shallow soils may have creosote compounds leached from utility poles formerly stored at this area.

AOC 4 – Weaver's Auto Body. Soils may be contaminated with paint mixtures and related cleaning solvents (body shop), residual gasoline and heating oil compounds (USTs), hydraulic oil (inground lift), and metals and PAHs (coal storage). Groundwater may be contaminated due to the toxicity and mobility of the body shop substances. Additional undocumented USTs may be present.

AOC 5 – Coal Yard No. 2. Shallow soils may have metals and PAHs from coal storage. Soils at the former gasoline USTs and oil ASTs may have residual contamination. Additional undocumented USTs may be present.

AOC 6 – Keystone Color Works. Soils beneath exterior windows on the building's west side may have elevated levels of lead.

AOC 7 – B & C Fasteners. Soils at an abandoned heating oil UST may have residual contamination. An additional storage tank may be present.

AOC 8 – Ohio Blenders Transformers. Three electric transformers may contain Polychlorinated Biphenyls (PCBs) and underlying soils may be contaminated with PCBs.

**Issues of Concern**

IOC 1 – Contaminated Building Materials. Contaminated building materials may be present in the spray paint room and materials storage area at Weaver's Auto Body. Much of the interior of the Keystone Color Works building is significantly pigment stained and may be contaminated.

IOC 2 – Asbestos-Containing Materials. Asbestos-containing materials are assumed to be present in all structures.

IOC 3 – Lead-Based Paint. All site buildings are presumed to have surfaces painted with lead-based paint.

IOC 4 – PCB Fluorescent Light Ballasts. Fluorescent light fixtures may have ballasts that contain small quantities of PCBs.

IOC 5 – Mercury-Containing Fluorescent Light Tubes and Electric Switches. Fluorescent light tubes and older electric switches may contain small amounts of mercury.

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# **1. Introduction**

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## **1.1. Purpose**

At the request of the City of York's Office of Economic Development, Edge Environmental Inc. has completed an environmental assessment of an area known as the Northwest Triangle located in the City of York, York County, Pennsylvania. The Northwest Triangle is an area of residential, commercial, and light industrial properties that the City of York is now interested in redeveloping for mixed residential and non-residential (commercial) uses.

The purpose of this environmental assessment is to 1) identify areas of potential environmental concern within the site, 2) make recommendations for further investigation of the areas of concern to identify those requiring remediation, and 3) begin to develop an understanding of which site properties will be best suited for residential use and which for non-residential use.

## **1.2. Scope of Work**

The scope of work for this environmental assessment, as detailed in Edge Environmental Inc.'s proposal E-148 dated July 22, 2003, consisted of the following tasks:

- **Records Review**—State and federal environmental records were reviewed to help identify environmental conditions in connection with the site. Historical use information was consulted to develop a history of site uses to help identify the likelihood of current or past uses having led to environmental conditions in connection with the site.
- **Site Reconnaissance**—The site and its structures were observed visually and physically for indications of underground or aboveground storage tanks; hazardous substances or petroleum products; on-site waste treatment, storage, or disposal; PCB equipment or transformers; and unidentified drums or containers.
- **Interviews**—Local government officials, site owners, site occupants, or others with good knowledge of the uses and physical characteristics of the site were contacted and interviewed.

## **1.3. Significant Assumptions**

- Information, estimates, and opinions obtained for, and contained in, this report were obtained from sources considered to be reliable, and are believed to be true and correct. No independent investigation has been made as to the accuracy of such items.
- The site has been assessed assuming responsible ownership. No survey of the site has been made.

#### **1.4. Limitations**

- This environmental assessment was commissioned by the Office of Economic Development of the City of York on terms specifically limiting the liability of Edge Environmental Inc. The conclusions stated herein are the result of the exercise of Edge Environmental Inc.'s best professional judgment, based in part upon materials and information provided by the City of York and others.
- This environmental assessment relates only to assessment of environmental conditions on the specific parcels of real estate comprising the site on the dates and times of the site reconnaissances, and at the locations referenced in this report.
- This environmental assessment did not include collection of any soil, water, material, or air samples; moving of furniture or fixtures; or any type of inspection that required extraordinary effort to access.
- Any reference in this report to the presence of asbestos-containing materials, lead-based paint, PCB fluorescent light ballasts, and mercury-containing fluorescent light bulbs and electric switches was limited to the observation of on-site structures' interior and exterior surfaces visible with the naked eye, and did not include collection of any samples of suspect materials.
- The presence or absence of lead in drinking water, wetlands, radon, urea-formaldehyde insulation, cultural or historic resources, ecological resources, threatened or endangered species, suspect indoor air quality, and electromagnetic fields was not addressed by this environmental assessment.

#### **1.5. User Reliance**

This environmental assessment was conducted for the benefit and use of the City of York, and may not be assigned to, or relied upon, by any third party. Use of this report by any third party for whatever reason should not, and does not, absolve such third party from using due diligence in verifying the report's contents.

Any use which a third party makes of this report, or any reliance on it, or decisions to be made based on it, are the responsibility of such third party. Edge Environmental Inc. accepts no duty of care or liability of any kind whatsoever to any third party, and no responsibility for damages, if any, suffered by any third party as a result of decisions made, or not made, or actions taken, or not taken, based on this report.

## 2. General Site Description

### 2.1. Location and Legal Description

The term “Northwest Triangle” is used to describe a 4.73-acre (+/-) area located along the south and west banks of the Codorus Creek, approximately 0.25 mile northwest of the City of York’s Continental Square, the City’s figurative center (see Site Location Map, Appendix A). The area is bounded to the north and west by the Codorus Creek, to the east by North Beaver Street, and to the south by West Gay Avenue, but includes the property at 146-150 North Beaver Street, which is on the south side of West Gay Avenue.

The Northwest Triangle is comprised of the properties listed in Table 1 and shown on Figure 1. In this report, the properties collectively will be referred to as “the Northwest Triangle,” or “the site;” individually, the properties will be referred to as indicated below. Additionally, there are portions of the site whose ownership could not be readily determined, such as railroad rights-of-way, unopened city streets, and property of the Army Corps of Engineers. These “orphan” parcels will be discussed as part of the York Rail property in Section 9.

**Table 1: Site Properties**

Property	Address	Tax Parcel ID Number	Property Use
146-150 North Beaver Street	146–150 North Beaver Street	03-045-01-0011	Collated fasteners wholesale distributor
Keystone Color Works	109 West Gay Street	03-046-01-0009	Organic and inorganic pigment manufacturer
	151 West Gay Street	03-046-01-0008	
200-206 North Beaver Street	200 North Beaver Street	03-046-01-0001	Four row homes with parking to the rear
	202 North Beaver Street	03-046-01-0002	
	204 North Beaver Street	03-046-01-0003	
	206 North Beaver Street	03-046-01-0004	
	West Gay Avenue	03-046-01-0005A	
208-236 North Beaver Street	208–236 North Beaver Street	03-046-01-0005	Auto body shop, used car sales, parking
Ohio Blenders	North Beaver Street	03-047-01-0001A	Animal feed preparation and blending
	North Beaver Street	03-047-01-0001B	
	260 North Beaver Street	03-046-01-0006	
	132–152 North Pershing Avenue	03-046-01-0007	
York Rail	North Beaver Street	03-047-01-0001	Rail line



## **2.2. Site and Vicinity General Characteristics**

The Northwest Triangle is located in an area of mixed, urban land uses. The site itself has properties used for residential, transportation, commercial, and light industrial purposes. The historic Fairmount area, several blocks of distinctive frame Victorian houses, is to the north of the site, across the Codorus Creek. The Susquehanna Commerce Center and Barton Associates, two former industrial properties recently redeveloped for offices, are on the west side of the Codorus Creek, opposite the site. Land use along the North George Street corridor to the east is primarily commercial, and properties to the south of the site are a blend of urban residential, commercial, and institutional.

## **2.3. Site Structures, Roads, and Other Improvements**

The following buildings are located on the site: two-story brick and block commercial building (146-150 North Beaver Street); three-story brick industrial building (Keystone Color Works); four-unit brick townhouse (200-206 North Beaver Street); three-bay block garage and one-story block former service station (208-236 North Beaver Street); eight metal grain silos and concrete block scale house (Ohio Blenders). With the exception of Ohio Blender's grain silos, all buildings on the site are located on its eastern half, adjoining either North Beaver Street or West Gay Avenue.

Railroad tracks traverse the northern, central, and south central sections of the site. Historically, the tracks along the northern edge of the site were owned and operated by the Western Maryland Railway, while the Pennsylvania Railroad owned those on the central and southern parts. All are now owned by York Rail. Active rail sidings serve the Ohio Blenders silos. There is a length of an abandoned rail siding to the west of the garage on the 208-236 North Beaver Street property.

North Beaver Street and West Gay Avenue are paved, public roadways. North Pershing Avenue approaches the site from the south, but ends at Gay Avenue. The portion of the site north of North Pershing Avenue is an open field. A brick and gravel lane extends from North Beaver Street to the Ohio Blenders silos. The western half of 208-236 North Beaver Street is an unpaved parking area.

In the 1930s, the channel of the Codorus Creek through much of the City of York, including the Northwest Triangle, was widened, straightened, and its sides were resurfaced with concrete and stone. The work was completed by the U. S. Army Corps of Engineers as part of a Flood Control Project funded by the Public Work Administration.

As part of the Army Corps' project, the Codorus Creek's banks in the area of the Northwest Triangle were reconfigured. The northwest corner of the site was reportedly filled, resulting in the steeply pitched creek bank evident today. The Creek's eastern and western banks were also reinforced with concrete and stone. The banks of the Codorus at the site are now partially paved, and are too steeply sloped for access on foot.

### **3. Records Review**

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#### **3.1. Physical Setting Sources**

##### **3.1.1. USGS Topographic Map**

The York, PA quadrangle of the USGS 7.5-minute topographic map series indicates that the site is located in a densely developed urban area. The map shows three rail lines and one rail spur, but no structures on the site (see Topographic Map, Appendix A).

According to the topographic map, the site and vicinity slope gently downward to the northwest, toward the Codorus Creek. The site is shown as relatively flat with an average elevation of approximately 375 feet above mean sea level. The northern and western edges of the site drop off rapidly to the Creek, which is situated approximately 20 feet below the site.

##### **3.1.2. Geology Map**

The site is underlain by two bedrock units: impure, gray-colored limestone of the Conestoga Formation underlies the southern half; the Pure Limestone Member of the Kinzers Formation underlies the northern half (see Geology Map, Appendix A). Both units are carbonate and, therefore, susceptible to sinkholes and subsurface voids. In areas underlain the Kinzers Formation's Pure Limestone Member, sinkholes and a highly irregular, pinnacled bedrock surface may occur below a deceptively smooth land surface. Any planning, engineering design, and construction should include careful investigation of bedrock and soil conditions.

The site is located in the Codorus Creek watershed, and the Creek is the receptor for local surface and groundwater. Ground and surface water at and in the vicinity of the site most likely flow to the north and northwest. Therefore, hydraulically upgradient properties are most likely located to the south and southeast of the site. Groundwater flow direction is an important consideration when determining the migration path of contaminants. Based on elevations of the site relative to the Creek, the groundwater surface at the site is expected to be approximately 20 feet below grade surface.

##### **3.1.3. Soil Survey Map**

Soil mapping of the U. S. Department of Agriculture/Soil Conservation Service identified two soils at the site (see Soil Survey Map, Appendix A). Conestoga silt loam, a moderately permeable soil derived from limestone parent material, mantles the southeastern corner. Linside silt loam, a deep moderately well drained soil found on flood plains, mantles the remainder of the site. Linside silt loam is hydric and may indicate the presence of wetlands; Conestoga silt loam is not hydric.

### **3.1.4. GIS Map**

A GIS map of the site, obtained through the York County Geographic Information Access System, showed no outstanding site features (see GIS Map, Appendix A). According to this map, the northwestern portion of the site is located in a 100-year flood plain.

## **3.2. Historical Uses**

### **3.2.1. Historical Aerial Photographs**

Historical aerial photographs from 1947, 1957, 1964, and 1971 were obtained and reviewed to aid in establishing a usage history of the site, and for evidence of historical on-site waste disposal or burial. Copies of the aerial photographs are included in Appendix B.

The 1947 aerial photographs indicated a cluster of structures at the southeast corner, a long, rectangular building adjoining the railroad tracks at the northeast corner, and a structure at the southwest corner, on the east side of North Pershing Avenue. Three rail lines traversed the site.

In the 1957 photographs, earth disturbances suggestive of construction or regrading were visible in the site's northwest and southwest corners, and just to the west of the structures adjoining North Beaver Street. Tall, round silos were present in the center of the site.

By 1964, the structures at the southwest corner had been removed, and the disturbed area near North Beaver Street appeared to have been smoothed over. In the 1971 photograph, the long, rectangular building at North Beaver and West North Streets was gone, and a number of unpaved roads were seen in the northwest corner of the site near the silos.

### **3.2.2. Sanborn® Maps**

Sanborn® maps from the years 1887, 1894, 1908, 1933, 1950, and 1989 were obtained and reviewed to aid in identifying historical property uses. The Sanborn® maps are discussed in general below, and more specifically in the sections of this report addressing the constituent properties of the Northwest Triangle. Copies of the Sanborn® maps are included in Appendix B.

The maps indicated that as early as 1887, all areas of the site were in use. In the late 1800s, the northwestern half of the site was a coal storage yard, while the southeastern half had commercial and light industrial properties, as well as several dwellings. Tracks of the Harrisburg & York Railroad, a precursor of the Pennsylvania Railroad, crossed an iron bridge over the Codorus Creek and traversed the center of the site before exiting near the intersection of North Beaver and West North Streets. A second set of tracks entered the southwest corner of the site and joined the center tracks near the intersection of North Beaver and West North Streets.

The 1908 and subsequent maps showed an additional bridge over the Codorus Creek and Western Maryland Railway tracks along the northern edge of the site. These tracks remained evident on all the Sanborn® maps through 1989.

North Water Street was shown at the western edge of the site on the 1887, 1894, and 1908 maps. On the 1933 and subsequent maps, the street was named North Pershing Avenue and it extended only as far north as the southern (Pennsylvania Railroad) bridge. The maps also showed West North Street extending westward into the site from North Beaver Street for ½ block.

### **3.2.3. R. L. Polk & Co.'s York City Street Directories**

R. L. Polk & Co.'s York City Street Directories from 1919 to 1997 were reviewed in approximately five-year increments to aid in identifying historical site occupants and uses. As the 1919 edition is the earliest directory in which street addresses and occupants were listed, no street directories dated prior to 1919 were reviewed. With street directories, when a street address has no listing, it can generally be concluded that the property at that address was unoccupied. The street directory listings for each site property are included as Appendix C.

### **3.2.4. Recorded Deeds**

Deeds for most properties were reviewed at the York County Recorder of Deeds to establish historical ownership of the properties and to aid in determining historical site uses. Due to the complexities of historic railroad property transactions, deeds for several of the parcels comprising the York Rail property were not readily available for review. Chains of title for those properties with reviewable deeds are included as Appendix D.

## **3.3. Environmental Records**

### **3.3.1. Standard Environmental Record Sources**

InfoMap Technologies, Inc. provided an Environmental FirstSearch™ report of standard environmental record sources to determine whether any site properties are included on the standard environmental databases of the United States Environmental Protection Agency (EPA) or Pennsylvania Department of Environmental Protection (DEP). The FirstSearch™ report had listings for three facilities located within the Northwest Triangle: B & C Fasteners, Keystone Color Works Inc., and Weavers Auto Body. These listings are discussed later in this report; a copy of the FirstSearch™ report is included as Appendix E.

### **3.3.2. DEP eFACTS**

DEP's Environment, Facility, Application, Compliance Tracking System (eFACTS), a comprehensive on-line environmental compliance reporting system, was searched for references to any of the site's properties. The query resulted in "hits" for Keystone Color Works and Ohio Blenders. The eFACTS listings for these facilities are discussed in Sections 4.3.2 and 8.3.2, respectively, and copies of the eFACTS listings are included as Appendix F.

### **3.3.3. DEP Files**

DEP files were reviewed at the Southcentral Regional Office, in Harrisburg, Pennsylvania. The file review request included any case files for site facilities as well as municipal files for the City of York in the following program areas: Waste Management, Water Management, Storage Tanks, Air Quality, Water Supply Management, Environmental Cleanup, and Radiation Protection. The DEP file documents pertaining to site facilities are discussed later in this report, and copies of relevant documents are included in Appendix G.

## 4. 146-150 North Beaver Street

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### 4.1. Description

The 146-150 North Beaver Street property is a rectangular parcel situated at the southwest corner of North Beaver Street and West Gay Avenue. It is bounded to the north by West Gay Avenue, to the south by the Episcopal Church of St. John the Baptist, to the east by North Beaver Street, and to the west by North Park Alley.

Address	Tax Parcel ID No.	Owner	Size
146-150 North Beaver Street	03-045-01-0011	James M. Hoffer	0.473 acre

A two-story, brick and concrete block building occupies the entire site. The building currently is leased to B & C Fasteners, Inc., wholesale distributors of collated fasteners and equipment to the construction industry.

### 4.2. Historical Records

#### 4.2.1. Sanborn® Maps

In 1887 and 1894, the property was part of “Michael Schall’s Car Works,” with a long, rectangular structure on its northern half and a rail siding through its southern half. The building, labeled “Bl. Sm. ‘H’” in 1887 and “foundry” in 1894, had a machine shop at its western end and offices at its eastern end. The southwest corner of the property was used for iron storage at that time. In 1908, the property was part of Keystone Farm Machinery Company and was entirely covered by the building that contained a machine shop, construction room, storage rooms, and an office.

In 1933, the property was an auto dealer with a listed capacity of 60 cars. The showroom and offices were at the building’s eastern end; the western end was used for auto repair. In 1950, the property was used by Edison Power & Light Co. as a private garage and repair facility. No property uses were indicated on the 1989 map.

#### 4.2.2. Street Directories

R. L. Polk & Co.’s York City Street Directories (see Appendix F) indicated that the property was part of Keystone Farm Machinery Co. until at least 1919. From approximately 1920 to at least 1975, the property was used for automobile sales or service under a variety of names: York Reo Company (1923), North Beaver Street Garage (1934-45), Edison Power & Light Co. garage (1945-55), and the Bratton Buick dealership (1955-75). The street directories indicated that since at least 1986, the facility has been a wholesale distributor of fasteners, and suggested that a portion of 146 North Beaver Street has been a residence since 1975.

#### **4.2.3. Recorded Deeds**

A chain of title for the property dating to 1944 (see Appendix D) indicated that private individuals have owned the site since 1946. The current owner, James M. Hoffer, has owned it since 1990. There were no indications of environmental problems or use restrictions in any of the reviewed deeds.

### **4.3. Environmental Records**

#### **4.3.1. Environmental FirstSearch™ Report**

B & C Fasteners is not listed as a suspected or confirmed federal or state Superfund site, a hazardous or solid waste disposal facility, or a registered storage tank facility. It has reported no UST releases, nor has it reported a release of hazardous materials. B & C Fasteners is listed as a Resource Conservation and Recovery Act (RCRA) conditionally exempt small quantity generator (<220 lbs./month) of hazardous waste under EPA ID No. PAO001018480. No enforcement actions or violations are listed.

#### **4.3.2. DEP Records**

There was no eFACTS listing for B & C Fasteners. There were no DEP case files for B & C Fasteners, nor were there any documents regarding B & C Fasteners in DEP's municipal files for the City of York.

#### **4.3.3. City of York**

City of York Fire and Rescue Services had no record of any hazardous materials incidents or UST closures at the property.

### **4.4. Site Reconnaissance**

The site was visited on May 4, 2004, on which date the entire property was inspected. Ms. Rose Eisenhart, General Manager of B & C Fasteners, was present during the reconnaissance. She provided information on current facility conditions and operations.

#### **4.4.1. General Observations**

The B & C Fasteners building, a two-story brick structure, occupies the entire site. Offices, a former product showroom, and an empty apartment (144 North Beaver Street) are at the eastern ¼ of the building, and open warehouse space occupies the western ¾ of the building. A loading dock is at the northwest corner, and an overhead garage door in the western wall provides drive-in access to the warehouse's interior from North Park Alley.

#### **4.4.2. Interior Observations**

Floors throughout the building are poured concrete, all of which were in good condition. A filled-in, inground vehicle lift was discovered near the northern wall in the center of the warehouse. The lift was located in an area reportedly used for oil changes and vehicle maintenance when the site was an automobile dealership. The lift's mechanism had been removed and the hole filled to floor level with concrete.

Limited quantities of paint were stored in a metal paint cabinet at the southwestern corner of the warehouse. No indications of other current or historical hazardous materials storage or disposal areas were observed at the site.

Three floor drains were discovered in the center of the warehouse (see Photo A). The drains were oriented in an east west line down the approximate middle of the building. Ms. Eisenhart thought the drains were connected to the municipal sewer system, but did not know for sure. No foul odors emanated from the drains, nor was the warehouse floor around the drains stained or pitted, both indications of potential waste disposal.

An oil-fired boiler was observed in a small boiler room located at the eastern end of the building. Oil for the boiler was stored in two 275-gallon ASTs located in a storage area at the southeastern corner of the building (see Figure 2). The tanks were manifolded together and in very good condition with no evidence of spills or releases. The empty apartment was heated by a natural gas-fired space heater.

Fluorescent light fixtures were observed throughout the building. Fluorescent light ballasts manufactured prior to 1979 may contain small amounts of PCBs. Fluorescent light bulbs and older electric switches in the building may contain small quantities of mercury. Asbestos-containing building materials—such as flooring, fireproofing, boiler insulation, and roofing—and lead-based paint were widely used in buildings constructed prior to 1978, and most especially those constructed prior to 1950. Given the age of the building, PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light tubes, asbestos-containing materials, and lead-based paint are assumed to be present.

#### **4.4.3. Exterior Observations**

Fill and vent pipes for the heating oil ASTs were observed on the building's southern wall at the southeast corner. An additional pair of vent and fill pipes was discovered on the same wall, approximately 30' to the west (see Photo B). These pipes suggest the presence of at least one additional storage tank. No other storage tanks, however, were discovered in the building.

A fill cap and the cover plate for a UST were observed in the sidewalk along North Beaver Street, proximal to the boiler room (see Figure 2 and Photo C). Prior to installation of the site's two ASTs, the UST reportedly stored heating oil for the boiler. No information regarding size, age, or closure of this tank was available.



#### **4.5. Summary**

The property was a farm machinery manufacturer until approximately 1920. The northern half of the current building predates 1887; the southern half was constructed in the early 1900s. From 1920 to approximately 1980, the property was a car dealership and garage. Since 1980, it has been a wholesale distributor of construction fasteners, and is currently occupied by B & C Fasteners.

B & C Fasteners is listed as a conditionally exempt generator (less than 220 pounds per month) of hazardous waste. Limited quantities of paints are appropriately stored at the site. There are no documented environmental concerns at the site.

The building is currently heated by an oil-fired boiler, the fuel for which is now stored in two 275-gallon ASTs, but had been stored in a UST located beneath the sidewalk between the building and North Beaver Street. There was no available information on the size, age, or closure of this tank. An additional pair of storage tank vent and fill pipes were observed on the building's southern wall, but no corresponding tank(s) were discovered.

The concrete floor throughout the warehouse was in good condition with very little staining or cracking. The floor covers those portions of the site that historically were a foundry (southeastern portion) and railroad tracks (central portion). One filled-in lift pit for an inground vehicle lift was observed in the warehouse. Three floor drains were observed in the warehouse. The drains' discharge is unknown, but they most likely to discharge to the public sewer system.

Given the age of the building, PCB-containing fluorescent light ballasts, mercury-containing switches and fluorescent light bulbs, asbestos-containing building materials, and lead-based paint are assumed to be present.

#### **4.6. Discussion**

The presence of the abandoned heating oil UST beneath the sidewalk east of the building is a concern due to the possibility for localized soil and/or groundwater contamination from tank releases. The additional vent and fill pipes on the building's southern wall should be traced to determine whether there are any additional storage tanks at the property.

Based on the property's historical manufacturing and railroad uses, there is the possibility that soils at the property may have elevated levels of metals, Polycyclic Aromatic Hydrocarbons (PAHs) from coal ash, and residual oils, and with petroleum products and solvent cleaners from its auto repair use. The manufacturing and railroad uses most likely occurred prior to pouring of the building's concrete floor. Thus, contamination from these uses, if any, would be of soils located beneath the building. The concrete floor would provide a barrier to direct contact with soils at the property.

Discharge of the floor drains to the public sewer system is not an environmental concern, however, on-site discharge of the drains is a concern due to the potential for soil contamination from hazardous materials or waste poured into the drains.

#### **4.6.1. Conclusions**

The following environmental conditions were identified in connection with the 146-150 North Beaver Street property:

- The presence of an abandoned heating oil UST beneath the sidewalk at North Beaver Street.
- An additional storage tank may be present, as suggested by additional fill and vent pipes on the building's southern wall.
- Soils at the site may have elevated levels of metals and PAHs from the site's manufacturing and railroad uses, and petroleum products and solvent cleaners from its auto repair use.
- Given the age of the building, PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light bulbs, asbestos-containing building materials, and lead-based paint are presumed to be present.

## 5. Keystone Color Works

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### 5.1. Description

The site is comprised of two adjoining parcels, both owned by Keystone Color Works, Inc., with a total area of 0.725 acre (31,581 square feet). The property is located at the southern edge of the Northwest Triangle, and is bordered by the 208-236 North Beaver Street property to the north, row homes of 200-206 North Beaver Street to the east, West Gay Avenue to the south, and railroad tracks to the west.

Address	Tax Parcel ID No.	Owner	Size
109 West Gay Street	03-046-01-0009	Keystone Color Works Inc.	0.333 acre
151 West Gay Street	03-046-01-0008	Keystone Color Works Inc.	0.392 acre

A three-story brick industrial building occupies the western two-thirds of the property. A poured concrete slab that, until the 1990s, was the floor for an extension of the current building covers the remainder of the property.

### 5.2. Historical Uses

#### 5.2.1. Sanborn® Maps

Sanborn® maps (see Appendix B) indicated that from 1887 to at least 1908, the property was used to manufacture farm machinery. During that time, the eastern half of the building was used for woodworking, and the western half for storage and as a paint room (1908).

Later maps indicated that the property was occupied by either Keystone Color & Paint Co. (1933), or its successor, Keystone Color Works, Inc. (1950, 1989). The building's eastern half was used for storage. A room at the building's northwest corner was used for pigment grinding, and, in 1950, 14 wooden vats were located on the first floor at the southwest corner. The Sanborn® maps did not indicate any underground or aboveground storage tanks at the property.

#### 5.2.2. Street Directories

The street directory listings for the property (see Appendix C) indicated that the property has been occupied exclusively by Keystone Color & Paint Co./Keystone Color Works, Inc. since at least 1929.

### **5.2.3. Recorded Deeds**

According to the property's chain of title (see Appendix D), Keystone Color Works, Inc. has owned the property since 1977. A portion of the property was owned by Harry Wisotzkey (1943-1957) and Maple Press Company (1957-77); the Wisotzkey family owned Maple Press. There were no indications of environmental concerns or restrictions in any of the reviewed deeds.

### **5.2.4. Other Historical Information**

A 1957 York Chamber of Commerce publication indicated that Keystone Color Works, Inc. was founded in 1919, and initially manufactured wallpaper colors and mica. Keystone Color Works also manufactured paint, but since 1935 has only manufactured organic and inorganic pulp pigments for the wallpaper and surface coating trades at the site.

## **5.3. Environmental Records**

### **5.3.1. Environmental FirstSearch™ Report**

Keystone Color Works, Inc. is not listed as a federal or state Superfund site, an active hazardous or solid waste disposal facility, or a registered storage tank facility. It has reported no UST releases, nor has it reported a release of hazardous materials to ERNS. The FirstSearch™ report (see Appendix E) had the following listings for Keystone Color Works, Inc.

#### **5.3.1.1. RCRA Generator**

Keystone Color Works, Inc. is listed as a RCRA small quantity generator (<220 lbs./month) of hazardous waste with EPA ID No. PAR000024364. No enforcement actions or violations are listed for this generator ID number.

#### **5.3.1.2. RCRA TSD Site**

Keystone Color Works, Inc. was at one time considered to be a hazardous waste treatment, storage, or disposal (TSD) facility, and had the EPA ID No. PAD003018256. It is no longer regulated as a TSD, and has been placed on the archival No Longer Regulated (NLR) list.

#### **5.3.1.3. CERCLIS Site**

In 1988-89, EPA investigated Keystone Color Works, Inc. under the federal Superfund program for possible inclusion on the National Priority List of federal Superfund sites. After preliminary assessment of the facility in 1989, it was determined that no further action was needed, and, in 1996, the facility was archived on EPA's list of properties where no further remedial action was planned.

### **5.3.2. DEP Records**

#### **5.3.2.1. DEP eFACTS**

According to DEP's eFACTS (see Appendix F), Keystone Color Works is an active captive hazardous waste operation under EPA ID No. PAD003018256. It was inspected in 2002 at which time no violations were noted. It was also listed as an active land recycling cleanup location, but eFACTS had no information regarding this listing. Keystone Color Works was listed as an inactive storage tank location, having registered a new storage tank in August 1989. There were no additional details regarding the tank registration.

#### **5.3.2.2. DEP Files**

Keystone Color Works, Inc. had Storage Tanks, Waste Management, and Hazardous Sites Cleanup Act (HSCA) case files, and documents regarding the facility in the City of York municipal file for Water Management.

##### **Case File: Storage Tanks**

The storage tanks case file contained the registration and closure report for a 20,000-gallon #4 fuel oil UST. The tank was located in a gravel area to the south of West Gay Avenue and, thus, was not actually located in the Northwest Triangle. No contamination was detected when the tank was removed in 1992. DEP subsequently reviewed and approved the tank's closure report.

##### **Case File: Waste Management**

The documents in the Waste Management case file (see Appendix G) pertained to Keystone Color Works' generation and disposal of pigment sludge containing lead and chromium, elements considered to be hazardous. In 1980, Keystone Color Works registered with DEP as a hazardous waste generator and submitted an application as a hazardous waste TSD. (Keystone Color Works withdrew the TSD application in 1984, but remained a small quantity generator.) The facility was subject to routine inspections by DEP and notices of violation were issued on several occasions, primarily for improper hazardous waste container labeling and notification.

A 1994 DEP inspection determined that Keystone Color Works no longer generated hazardous waste. A 1996 DEP inspection concluded that Keystone Color Works was a large quantity generator of residual waste (non-hazardous industrial waste), and was, therefore, subject to source reduction and periodic reporting requirements.

In 2002, DEP inspected the facility and noted 300 various-sized containers (5- to 55-gallons) of solid waste from pigment production. DEP noted that the waste containers had been stored at the site for more than one year and recommended proper disposal of the containers. Keystone Color Works disposed of the containers off site and, after a follow up inspection, DEP closed the case.

**Case File: HSCA**

In 1989, EPA completed a Preliminary Assessment of Keystone Color Works as the initial step in evaluating it for possible inclusion on the federal Superfund list. EPA addressed the site's environmental setting, use history, and types and quantities of wastes generated at the facility. A copy of the Preliminary Assessment's text is included in Appendix G.

The Preliminary Assessment identified four solid waste management units at the facility: a wastewater collection pit, wastewater treatment tanks, a former waste drum storage area, and an empty raw materials drum storage area.

The wastewater collection pit—a 1,500-gallon, concrete-lined pit located just outside the boiler room—collected wastewater from a series of open-trench floor drains throughout the first floor of the plant. From the pit, wastewater was pumped to the wastewater treatment tanks.

Four treatment tanks that held wastewater from pigment production tanks were located at the building's far northern end. From 1961 to 1980, sludge from the treatment tanks was collected in 55-gallon drums and disposed at either the Old York County Landfill or the York County Landfill. After 1980, the sludge was transported by a hazardous waste hauler for off site treatment and disposal. The remaining wastewater was pumped to the municipal sewer system.

The former drum storage area—located at the northwest corner of the building—was used from the 1960s through 1980 to store 55-gallon drums of sludge waste prior to disposal. The sludge in the drums was a hazardous waste due to the chromium and lead content.

Empty raw materials drums were stored in the building's warehouse. The drums were stored there until they could be crushed and picked up for disposal.

During its field trip to the facility, EPA observed no indications of releases in any of the solid waste management units. EPA's sensing instruments detected no readings above background. EPA noted that all plant processes and storage of materials were contained within the building.

**City of York Municipal File: Water Management**

In June 1987, a malfunctioning float valve on a wastewater tank resulted in an unauthorized release of wastewater to a storm water drain that discharged to the Codorus Creek. Keystone Color Works was cited by DEP and paid a \$250.00 fine.

**5.3.3. City of York**

City of York Fire and Rescue Services had no record of any hazardous materials incidents at the property, or of any UST closures at the site.

## **5.4. Site Reconnaissance**

All portions of the Keystone Color Works property were visited and inspected on May 6, 2004. Mr. Ed Mercier, plant manager, was interviewed during the site reconnaissance. Mr. Mercier has been employed at the site since 1973 and was familiar with all aspects of the facility's production and much of the site's history. He said that, at its peak, Keystone Color Works employed approximately 25 workers at the site, but now employs only 3-4.

Keystone Color Works is served by public water (York Water Company) and sewer (City of York). According to Mr. Jack Longstreet, City of York Wastewater Treatment Plant, the sewer main for the facility runs beneath West Gay Avenue. He reported that public sewer was installed in the area in the early 1900s.

### **5.4.1. General Observations**

The Keystone Color Works building covers essentially the entire property. The eastern third is an open concrete pad that had been the floor for a portion of the building demolished in the 1990s. According to Mr. Mercier, this portion of the site was sold to Maple Press in the 1950s and reacquired by Keystone Color Works in the 1970s. Maple Press used their part of the site for paper storage.

#### **5.4.1.1. Past Site Processes**

From Keystone Color Works' inception in 1919 to the 1980s, pigment production at the facility employed essentially the same processes. Raw materials were mixed and blended in 300-gallon wooden barrels situated on the second floor (see Photo D). After settling out, clear water was drawn off the top and discharged to the large wastewater tanks at the north end of the building; the remaining product flowed by gravity into 3,000-gallon wooden tanks located on the ground floor (see Photo E), where the chemical reactions that actually produced the colors took place. After settling out again, the liquids were pumped off as wastewater and the solids were sent to one of four filter presses, also located on the ground floor, where excess water was removed (see Photo F). The finished dry pigments were then weighed, packaged, and shipped to customers.

#### **5.4.1.2. Current Site Processes**

Keystone Color Works now purchases pigments from other manufactures, and only mixes, blends, and packages them at the site. Actual on-site pigment production using older methods now takes place only by special request, perhaps once or twice a year, according to Mr. Mercier. Only a handful of the facility's wooden 3,000-gallon tanks are used during that process. According to Mr. Mercier, the 300-gallon tanks have not been used in approximately 6 years.

#### **5.4.1.3. Hazardous Substances**

Raw materials and finished product—some of which are considered to be hazardous substances—are stored throughout the building. Raw materials arrive in a variety of containers: 5-gallon pails, and 30- and 55-gallon drums for liquids; 50- to 80-pound bags on wooden pallets for dry materials such as aluminum hydroxide and soda ash; and glass

carboys or plastic jugs for acids and bases. Finished product is packaged in 5-gallon plastic pails and stored at various locations throughout the building.

Small quantities of laboratory-grade reagents and materials are stored and used in the facility's testing laboratory. According to Mr. Mercier, small samples of every product ever produced by Keystone Color Works are also kept for comparison should it be necessary to reproduce them.

#### **5.4.1.4. Solid Waste**

Mr. Mercier confirmed that from 1961 to 1980, Keystone Color Works produced pigments that contained chromium and lead, elements considered to be hazardous. During that time, sludge residue from the filter presses and sludge from the wastewater treatment tanks was considered to be hazardous waste. Mr. Mercier said that until the 1980s, the sludge was drummed and disposed at landfills. Since then, sludge from the wastewater treatment tanks has been pumped off by licensed waste haulers and transported to approved waste disposal facilities. The filter presses are no longer used and, thus, no longer generate waste. Mr. Mercier stated that no wastes were ever disposed on the site.

#### **5.4.1.5. Wastewater**

Other than sanitary wastewater to the public sewer system, all wastewater generated at the site (process wastewater, floor and tank rinse water, filter press effluent, boiler blowdown, etc.) flows into the concrete-lined trench that run the length of the ground floor. The trenches discharge to a 1,500-gallon, concrete-lined, holding pit located next to the boiler room (see Photo G). From there, wastewater is pumped to one of three fiberglass treatment tanks located at the north end of the building (see Photo H). Aluminum sulfate is added as a flocculent and soda ash is used to adjust the pH of the wastewater. Solids that settle out are collected in a wooden holding tank from which they are pumped off and disposed of by a licensed waste hauler. Remaining water is discharged to the public sewer system.

According to Mr. Mercier, the fiberglass tanks replaced older, wooden tanks that were damaged in a 1991 fire. The current wastewater treatment room, constructed around the new tanks, has a poured concrete floor and a concrete-block berm capable of containing the volume of one of the treatment tanks. Mr. Mercier said that there have been no releases from the tanks.

#### **5.4.2. Interior Observations**

Currently, the ground floor of the Keystone Color Works building is used for shipping and receiving, material and product storage, current pigment production activities, and wastewater treatment. A boiler room is located near the building's southeast corner and a concrete block extension off the north corner contains three wastewater treatment tanks. Administrative offices, a quality testing laboratory, and a small maintenance shop are on the second floor. The remainder of the second floor and the entire third floor are used to store raw materials, finished product, and old equipment.



Floors on the ground level are poured concrete; floors on the second and third levels are wood. Some sections of the wooden floors were pitted and damaged, especially in the parts of the building where acids and other corrosives were historically used and stored. A cable-driven freight elevator is located in the approximate center of the building.

Most of the building is heated by a natural gas-fired, low-pressure steam boiler that uses fuel oil as a backup. The fuel oil currently is stored in two 275-gallon ASTs also located in the boiler room (see Figure 2), but had been stored in the 20,000-gallon UST located across West Gay Avenue from the site (see Section 5.3.2.2 above). Mr. Mercier said that this autumn, Keystone Color Works intends to burn off the fuel oil in the ASTs and not refill them. One floor drain was observed in the boiler room. Mr. Mercier stated that the drain discharges to the public sewer system.

There were sixty-two 300-gallon wooden pigment tanks on the second floor and twenty-three 3,000-gallon wooden mixing tanks on the ground floor. All tanks sat in lead trays to protect the underlying floors. Most of the tanks remained filled with water to prevent them from drying out and splitting. According to Mr. Mercier, when the tanks were used in pigment production, the lead trays and underlying concrete and wooden floors were washed down on a weekly basis. Rinse water from the second and third floors was routed to the ground floor for treatment in the facility's wastewater treatment system. Rinse water from the ground floor flowed directly to the floor trenches and into the wastewater treatment system.

Fluorescent light fixtures were observed throughout the building, as were old electric switches. Given the age of the building, PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light bulbs, asbestos-containing materials, and lead-based paint are assumed to be present.

To protect product purity, production was separated by color, with blue, red, and yellow each having discrete areas of production or "color rooms." The color rooms and all pigment equipment were significantly stained, depending on the color manufactured. Staining was especially noticeable on wooden surfaces and pieces, such as floors, tanks, walls, ceiling joists, and support beams.

#### **5.4.3. Exterior Observations**

The entire site is essentially covered by the Keystone Color Works structure, leaving only a narrow perimeter of grass and weedy vegetation along the northern and western sides of the building (see Photo I). The building's exterior windows and sills historically were painted, presumably with lead-based paint. As the painted surfaces weather, lead can leach from the paint and wash off. Thus, soils located immediately beneath painted windows and sills may have elevated levels of lead.

There was no surficial evidence of on-site waste disposal discovered at the building's exterior, such as stained pavement or soil, or dead or dying vegetation.

## 5.5. Summary

The site was part of a farm equipment manufacturer until Keystone Color Works acquired it in 1919. Since then, Keystone Color Works has produced organic and inorganic pulp pigments for the wallpaper and surface coating trades at the facility. Until the 1980s, pigment production consisted of mixing raw materials in 300-gallon wooden vats and again in 3,000-gallon wooden tanks, collecting the resultant pigment solid, pressing it in filter presses to remove water, and packaging the finished product for shipment to the customer. Wastewater generated during the processes was treated on site prior to discharge to the public sewer system. Residual sludge from wastewater treatment and filter presses and was drummed and stored on site prior to disposal at off site landfills.

Current pigment production consists of mixing, grinding, and blending pigments purchased from other manufacturers. Process wastewater is treated prior to discharge to the public sewer system. Residual sludge is regularly pumped off by a licensed waste hauler and disposed at an off site waste facility.

From 1961 to 1980, Keystone Color Works produced two pigments that contained lead and chromium, elements considered to be hazardous. Waste sludge generated during that time contained these elements and was considered hazardous waste. In 1989, EPA conducted a preliminary assessment of Keystone Color Works for issues related to its storage at the site of hazardous waste sludge until it could be shipped off site for disposal. EPA determined that no further action was needed, and, in 1996, placed Keystone Color Works on its archive list of properties where no further remedial action was planned.

All processes take place within the confines of the Keystone Color Works' three-story brick building, which covers almost the entire site. Public water serves the facility, and public sewer has served it since the early 1900s. The building is heated by a natural gas-fired boiler with heating oil backup. At present, the heating oil is stored in two 275-gallon ASTs located in the boiler room. The heating oil was stored in a 20,000-gallon UST located at an adjoining, off-site parcel. The UST was properly closed and removed in 1992.

Raw materials and finished product containing hazardous substances historically were stored throughout the Keystone Color Works building. Although now rarely used, the 300- and 3,000-gallon pigment tanks remain in the building. The color rooms and the equipment in them were significantly stained, depending on the color manufactured.

Other than sanitary wastewater that is discharged directly to the public sewer system, wastewater generated at the facility—process wastewater, rinse water from washing down equipment and the facility, and boiler blow down—is treated on site prior to discharge to the sewer system. There was no evidence that wastewater has ever been discharged onto the site or adjoining properties.

Given the age of the building, PCB-containing fluorescent light ballasts, mercury-containing switches and fluorescent light bulbs, asbestos-containing building materials, and lead-based paint are assumed to be present. The building's exterior windows and sills are assumed to have had lead-based paint. Lead weathered from the paint may have impacted soils beneath those windows, especially on the northern and western sides of the building.

## **5.6. Discussion**

Keystone Color Works has an 80+-year history of using and storing hazardous substances—acids, lead-, chromium-, and other metal-containing materials, corrosives, laboratory reagents, and chlorinated solvents—throughout the building. Some wastes historically generated at the facility were considered hazardous. Release of these hazardous substances or wastes to the environment has the potential to have contaminated soils and groundwater at the site or nearby properties.

Materials handling and waste disposal practices since the 1970s are well known; practices prior to 1970s are largely unknown. However, there are no documented incidents of spills or releases of industrial materials or wastes at the site, nor is there any evidence to suggest that Keystone Color Works improperly disposed of waste on its own or adjoining properties.

Soils beneath the building's exterior windows should be sampled and analyzed to determine whether they have elevated levels of lead weathered from lead-based paint presumed to be on the windows and sills.

The 1992 closure of the 20,000-gallon heating oil UST is not a concern as the tank was located off-site and the closure was completed in accordance with tank closure guidelines in effect at that time.

The wastewater collection trenches on the ground floor reduce the potential for a release inside the building to impact the environment. The trenches capture all non-sanitary wastewater generated at the site, whether it is process wastewater from pigment production, or rinse water from washing down equipment on the second and third floors. Treated wastewater has always been discharged to the public sewer system. Furthermore, the Keystone Color Works building covers almost the entire property, leaving little area for the facility to dispose of its waste on site.

Therefore, the greatest potential for contamination of the Keystone Color Works property from historical uses is to the interior of the building—floors, walls, pigment mixing tanks, etc. Materials and wastes encountered in the building may require characterization prior to removal and/or disposal. If Keystone Color Works improperly disposed of its waste—directly discharged its wastewater, or dumped its waste drums—the properties most likely to be impacted would be those adjoining the site.

## 5.7. Conclusions

The following environmental conditions were identified in connection with the Keystone Color Works property:

- The site's 80-year (+/-) history of using and storing hazardous substances, and generating, storing, and treating hazardous wastes, and the potential for soil and/or groundwater contamination from a release(s) of these materials or wastes. Due to site configuration, the primary area of concern is the interior of the Keystone Color Works building.
- The likely presence of contaminated building materials and equipment—walls, floors, pigment vats, etc.—inside the building. Raw materials and wastes encountered in the facility may require characterization prior to removal and/or disposal.
- The possibility that soils beneath exterior windows may have elevated levels of lead weathered from lead-based paint on windows and sills.
- The presumed presence of PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light bulbs, asbestos-containing building materials, and lead-based paint, all of which may require characterization prior to renovation or demolition.

## 6. 200-206 North Beaver Street

### 6.1. Description

The 200-206 North Beaver Street property is comprised of five contiguous parcels located on the northwest corner of North Beaver Street and West Gay Avenue. The property is rectangular in shape with a total area of 8,100 square feet (0.186 acres). It is bounded to the north by 208-236 North Beaver Street, to the east by North Beaver Street, to the south by West Gay Avenue, and to the west by Keystone Color Works.

Address	Tax Parcel ID No.	Owner	Size
200 North Beaver Street	03-046-01-0001	Dwayne J. & Karen E. Rodes	0.034 acre
202 North Beaver Street	03-046-01-0002	Dwayne J. & Karen E. Rodes	0.036 acre
204 North Beaver Street	03-046-01-0003	Dwayne J. Rodes	0.037 acre
206 North Beaver Street	03-046-01-0004	Craig A. Kauffman	0.035 acre
West Gay Avenue	03-046-01-0005A	Dwayne J. & Karen E. Rodes	0.044 acre

A three-story brick structure containing four row homes fronts on North Beaver Street. The four housing units are currently occupied: 200 North Beaver Street—four-unit apartment; 202 North Beaver Street—owner occupied with a rental unit on the second floor; 204 North Beaver Street—two-unit apartment; and 206 North Beaver Street—owner occupied. The West Gay Avenue parcel is located behind (west of) the row houses and is used for parking by site occupants.

### 6.2. Historical Uses

#### 6.2.1. Sanborn® Maps

The Sanborn® maps (see Appendix B) indicated that from 1887 through 1989 the eastern part of the property was occupied by a four-unit row home. A shed that was part of the Keystone Color Works building occupied the western end of the site from 1887 through 1950. The 1989 map indicated no storage shed.

#### 6.2.2. Street Directories

The street directories (see Appendix C) indicated that the 200-206 North Beaver Street properties were either single- or multi-unit dwellings from at least 1919 through 1997. There were no listings for the West Gay Avenue parcel.

#### 6.2.3. Recorded Deeds

According to the chains of title for the site (see Appendix D), the 200 and 202 North Beaver Street parcels were owned by Keystone Machine Company until the early 1900s. Although the 204 and 206 North Beaver Street chains of title extend only to 1939, it is assumed that either Keystone Color Works or the Barnitz family owned these two parcels

as well. The Barnitz family owned the West Gay Avenue parcel until 1956. The Barnitz family owned and operated Barnitz-Heckert Company coal yard at the adjoining 208-236 North Beaver Street property until the 1950s.

### **6.3. Environmental Records**

#### **6.3.1. Environmental FirstSearch™ Report**

The 200-206 North Beaver Street properties were not identified on any of the reviewed EPA or DEP environmental databases.

#### **6.3.2. DEP Records**

There were no eFACTS listings or DEP case files for the 200-206 North Beaver Street properties. There were no documents regarding the properties in DEP's municipal files for the City of York.

### **6.4. Site Reconnaissance**

The site reconnaissance was conducted on April 28, 2004 at which time the exteriors of all four properties were accessed and inspected. The interiors of the town houses were not inspected due to their exclusive history of residential use. Neither Mr. Dwayne Rodes (200-204 North Beaver Street) nor Mr. Craig Kauffman (206 North Beaver Street) was aware of any environmental concerns associated with their properties.

#### **6.4.1. General Observations**

The four-unit, brick town home occupies most of the site. A grass and gravel strip of land provides parking and access to the building's rear for site occupants.

#### **6.4.2. Interior Observations**

According to the property owners, all four properties are heated by natural gas. Neither was aware of any aboveground or underground heating oil tanks at their respective properties. Given the age of the buildings, PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light bulbs, asbestos-containing materials, and lead-based paint are assumed to be present.

#### **6.4.3. Exterior Observations**

There were no surficial indications of the current or former presence of ASTs or USTs at the properties, nor was there any evidence to suggest that the properties are currently, or have been historically, used for waste disposal.

## **6.5. Summary**

The 200-206 North Beaver Street site consists of five adjoining parcels occupied by a four-unit, three-story, brick town home. The site has a history of residential use dating to the early 1900s. None of site's constituent properties are listed on the standard EPA or DEP databases, nor were there any surficial indications of recognized environmental conditions observed at the site.

## **6.6. Discussion**

The historical use of the site for residential purposes is not an environmental concern. Thus, the most significant environmental issues are most likely those related to the building's interior: PCB-containing fluorescent light ballasts, mercury-containing electric switches and fluorescent light bulbs, asbestos-containing materials, and lead-based paint.

## **6.7. Conclusions**

No environmental conditions were identified in connection with properties at 200-206 North Beaver Street.

## 7. 208-235 North Beaver Street

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### 7.1. Description

The property at 208-236 North Beaver Street is roughly trapezoidal in shape and bounded to the north and west by York Rail (formerly Western Maryland Railway) tracks, to the east by North Beaver Street, to the south by row homes of 200-206 North Beaver Street, and to the southwest by Keystone Color Works.

Address	Tax Parcel ID No.	Owner	Size
208-236 North Beaver Street	03-046-01-0005	William E. Kraft	0.994 acre

Two buildings are located on the property: Weaver's Auto Body (216 North Beaver Street) and P & S Motors (220 North Beaver Street), a used car dealer. A gravel parking area on the property's western half is used as a private parking lot.

### 7.2. Historical Uses

#### 7.2.1. Sanborn® Maps

The Sanborn® maps (see Appendix B) provided a great deal of information regarding historic uses of the 208-236 North Beaver Street property. According to the maps, from at least 1887 through 1950, the property was a coal and wood yard. The property also included two apartment homes in the southeast corner, adjoining those at 200-206 North Beaver Street. Several smaller storage sheds, a scale house, and a small office building were added to that area prior to 1933. The two row homes and all adjoining structures were removed prior to 1989.

In the late 1800s, coal and woodsheds were located along the property's eastern, southern, and western edges. Three rail sidings extended into the center of the property from its northeast corner. The sidings were enclosed by coal sheds sometime after 1887 and remained on the property through 1950.

By 1933, a filling station had been constructed in the northeast corner of the property. The 1933 and 1950 maps indicated two gasoline storage tanks between the building and North Beaver Street. The 1933 map also indicated a third gasoline storage tank in the southeast portion of the property, near North Beaver Street. The 1950 map showed a square concrete block building used for greasing just south of the filling station. The building was doubled in size on the 1989 map.

The 1989 map showed two buildings and one rail siding on the property. The coal and storage sheds had been removed and that area was used for parking. The former filling station and greasing buildings were shown, but neither was labeled as to use. The gasoline tanks indicated on the 1933 and 1950 maps were not shown on the 1989 map.



### **7.2.2. Street Directories**

According to the street directory listings for the 208-236 North Beaver Street property (see Appendix C), two dwellings occupied a portion of the property (208 and 212 North Beaver Street) from at least 1919 through 1955. Portions of the property were a coal yard (1919-55), a feed company (1929-65), and a gas station (1933-75). Weaver's Auto Body has occupied the site since at least 1986, and the former gas station has been a used car dealer since at least 1992.

### **7.2.3. Recorded Deeds**

Recorded deeds for the property (see Appendix D) indicated that members of the Barnitz family owned the property from at least 1920 to 1956. From 1956 to 1982, it was owned by successive generations of the King family. The current owner, William Kraft, acquired it in 1990 from James and Darlene Weaver, who had purchased it in 1982 from Gene and Joan King. There were no references in the deeds to environmental problems or use restrictions.

## **7.3. Environmental Records**

### **7.3.1. Environmental FirstSearch™ Report**

Weaver's Auto Body is listed as a RCRA small quantity generator of hazardous waste (220-2,200 pounds per month) with the EPA ID No. PAD101656130. No enforcement actions or violations were detailed on the listing. The small quantity generator status is typical of an auto body shop where paint wastes are generated.

### **7.3.2. DEP Records**

There were no eFACTS listings, DEP case files, or DEP documents for Weaver's Auto Body, or any other property at 208-236 North Beaver Street.

### **7.3.3. City of York**

City of York Fire and Rescue Services had no record of any hazardous materials incidents at the property, or of any UST closures at the site.

## **7.4. Site Reconnaissance**

The site reconnaissance was conducted on April 27, 2004. Mr. William Kraft and Mrs. Tracey Kraft, owners of Weaver's Auto Body, and Mr. Alexandro Pebon, co-owner of P & S Motors, were interviewed during the reconnaissance. Mr. Kraft has owned the site since 1990, but began working for Weaver's Auto Body in the 1980s. He provided information on site operations during that time, and was also able to provide additional information on USTs removed from the site.

Mrs. Kraft had a copy of a 1953 site plan prepared when John King leased a portion of the site from Barnitz-Heckard Coal Co. The plan showed two structures adjacent to North Beaver Street—a gas station and a “Wash Room & Lubritorium”—as well as five 20,000-gallon heating oil USTs west of those structures.

Mrs. Kraft also provided copies of documents regarding closure of nine USTs. Copies of the tank closure documents are included as Appendix H. According to these documents, in May 1987, Diamond State Environmental, Inc., Shippensburg, Pennsylvania, removed two 550-gallon, one 1,000-gallon, and five 20,000-gallon USTs, and filled one 15,000-gallon UST with sand. No confirmatory soil samples were collected during the closures.

Mrs. Kraft said that she obtained the tank closure information from Diamond State Environmental in 1990 at the request of York Bank and Trust Co. as part of a commercial loan approval process. Mrs. Kraft said that York Bank also requested that she collect three soil samples from the former heating oil UST locations. She said that she collected three surface soil samples in March 1990, and had them analyzed by Enviro Lab, Inc. for Total Petroleum Hydrocarbons (TPH). The laboratory report indicated that no TPH was detected at or above the method detection limits in any of the three samples.

#### **7.4.1. General Observations**

Two structures are located on the site. P & S Motors occupies a square-shaped, concrete block building situated along North Beaver Street in the northeast corner of the site, and Weaver’s Auto Body occupies a rectangular-shaped, concrete block garage building just south of the P & S Motors. The two structures are separated by approximately five feet of asphalt pavement. The southern third of the site paved; the remainder is gravel covered.

#### **7.4.2. Weaver’s Auto Body**

Weaver’s Auto Body has occupied that the site since approximately 1982. Weaver’s Auto Body does state inspections, general vehicle repairs, and auto bodywork, for private customers as well as for the City of York. The body shop building has poured concrete floors throughout. A two-bay repair garage occupies the northern third, offices are in the southeast corner, and a spray paint room is along the western wall. An open area in the building’s southwest corner is used for parts storage and has a portable frame-straightening unit.

Public water and sewer serve the building. The building is heated by an oil-fired furnace, heating oil for which is stored in two ASTs located outside the building’s western wall (see Figure 2). The tanks were in good condition and the ground surface beneath the tanks was unstained.

One inground vehicle lift was observed in floor of the repair garage (see Photo J). According to Mr. Kraft, he has never had to add hydraulic fluid to it.

Two metal caps, one large (approximately 15" diameter) and one small (approximately 4" in diameter), were observed in the garage floor (see Photo K). Neither Mr. nor Mrs. Kraft was aware of the caps. The caps are believed to be for an oil-water separator used to pretreat garage floor wastewater prior to its discharge to the public sewer system. No other floor drains were observed in the building.

The spray paint booth had an exhaust fan mounted in its western wall. The fan was equipped with fabric filters that Mr. Kraft reportedly changes after each use. The exterior ground surface beneath the exhaust fan and the concrete block exterior wall were slightly discolored, most likely from paint overspray (see Photo L). Paint and solvent paint thinner were stored in the booth area in secure metal cabinets. The floor and walls of the paint booth interior were moderately covered with paint residue. There were no drains in the paint booth floor.

A metal storage trailer (see Photo M) and a waste dumpster (see Photo N) were parked on the gravel outside the building's western wall. Mrs. Kraft said that the trailer, now empty, had been used to store paint, and that the waste dumpster had been used for scrap metal. She said that the dumpster predated the body shop. The ground surface at the trailer and dumpster was gravel covered and exhibited no obvious indications of environmental impairment, such as staining or foul odors.

#### **7.4.3. P & S Motors**

P & S Motors, a used car dealer, has leased its building since approximately 1990. The building, a former service station, has two offices and a bathroom. A canopy extends off the eastern side of the building, almost to the edge of North Beaver Street. According to the Sanborn® maps, two gasoline USTs were located between the canopy's edge and the concrete sidewalk along North Beaver Street (see Figure 2).

#### **7.4.4. Exterior Observations**

The site's eastern third is paved. The remainder of the site—the area from the site buildings to the Keystone Color Works property and the railroad tracks—is gravel covered. This area has a capacity of approximately 100 cars and is leased out for monthly parking. Mrs. Kraft said that at one time, Keystone Color Works leased a portion of the parking area for access to its loading docks.

The remnants of a rail spur extended into the site's interior from North Beaver Street and terminated behind the body shop building. There was no evidence of the coal sheds that had been located on the site while it was a coal yard.

The ground surface between P & S Motors and North Beaver Street was paved, except for a small gravel section directly in front of the canopy, the location of the removed gasoline USTs (see Photo O). There was no surficial evidence of the five 20,000-gallon heating oil USTs (see Photo P) or the 1,000-gallon UST removed in 1987, or of the 15,000-gallon UST filled with sand in 1987.

## **7.5. Summary**

The site was a coal and feed yard from at least the 1880s until approximately 1960. Three covered rail spurs in the center of the site stored coal. Two apartment flats and the coal yard offices were in the southeast corner of the site. In the 1930s, a gasoline station with two gasoline USTs was constructed in the northeast corner of the site. The gasoline station expanded into heating oil distribution in the 1950s, but both businesses closed in the mid 1970s. Since 1982, the site has been occupied by an auto body shop and vehicle repair garage. A used car dealer has leased a portion of the site since 1990. The remainder of the site is leased out for monthly parking.

Auto body paint, paint-related materials, solvent cleaners, and petroleum-based products, most of which are hazardous substances, have been stored and used at the site for over 20 years. Paint is now stored in the body shop building in secure cabinets, but had been stored outside in a trailer. The body shop building has one hydraulic inground lift, and a spray paint booth with a wall-mounted exhaust fan.

Nine USTs were closed at the site in 1987: five 20,000-gallon heating oil USTs; one 15,000-gallon UST with undetermined contents; two gasoline USTs at the former gas station; and a third gasoline UST in the southeastern corner of the site. The 15,000-gallon UST was located beneath the auto body building and was reportedly closed in place by filling with sand. No confirmatory soil samples were collected during the 1987 closures. Three surface soil samples collected by the site owner in 1990 exhibited no contamination.

## **7.6. Discussion**

The historical use of the 208-236 North Beaver Street property as a coal yard may be an environmental concern. Most environmental impacts related to coal result from byproducts of its combustion, such as coal ash and coal tars, and not from the coal itself. However, coal mined in the United States commonly contains some minor amount of iron sulfite, and coal exposed to ambient conditions, such as in a stockpile, can result in drainage with high concentrations of iron, manganese, and aluminum, as well as trace amounts of arsenic, copper, nickel, zinc, cobalt, and chromium. There is also the possibility that PAHs may have leached into the underlying soil.

Based on Sanborn® maps and other documents, nine USTs were located on the site. Sanborn® maps, however, typically include only gasoline USTs and larger heating oil ASTs. Other underground storage tanks, such as waste oil USTs at service stations or heating oil USTs, are often not included on Sanborn® maps. Therefore, as the property was occupied by a gasoline station and heating oil distributor, there is possibility that one or more additional USTs may be located on it.

In the years preceding promulgation of 1989 tank registration and closure regulations, soil and/or groundwater samples were required at storage tank closures only if there was a known release from the closed storage tanks. The absence of confirmatory samples

from the 1987 tank closures, plus the three “clean” samples collected in 1990, suggest that there was no residual contamination at the site. On the other hand, surface soil samples would be insufficient to detect contamination present in subsurface soils. Thus, the 1990 samples cannot be considered to be a valid characterization of the soil at the tank removal location. Additionally, levels of residual soil contamination can be present above action levels even where there are no visual indications of contamination. Thus, there is possibility that residual soil contamination may be present at the former storage tank locations.

Hazardous auto body materials have been used and stored at the property for approximately 20 years. Improper disposal of any of these substances has the potential to have adversely impacted soils and/or groundwater at the site. The toxicity and mobility of paint mixtures and related cleaning solvents make groundwater contamination an environmental concern. Localized soil contamination may be encountered in the vicinity of the storage trailer formerly was used for paint storage, beneath the spray paint booth’s exhaust fan, and near doorways and windows, locations where it would have been easy to pour wastes directly onto the ground surface.

The body shop’s inground lift contains hydraulic fluid that, if it leaks from the lift mechanism, can result in contamination of the surrounding soils. Discharge of the drain to the public sewer system is not an environmental concern; discharge of the drain to the property is a concern due to the potential for soil contamination from hazardous materials or waste poured into it.

## **7.7. Conclusions**

The following environmental conditions were identified in connection with the property at 208-236 North Beaver Street:

- The historic use of the site as a coal storage yard may have resulted in elevated levels of metals and PAHs in on-site soils.
- The possibility of additional USTs based on the site’s historic uses as a heating oil distributor and gasoline station.
- The possibility for residual soil contamination at the former storage tank locations.
- The presence of an auto body shop at the property for over 20 years, and the potential for groundwater and/or localized soil contamination from improper storage or disposal of paint mixtures and related cleaning solvents.
- The inground hydraulic lift at the body shop has the potential to have resulted in localized soil contamination.

## 8. Ohio Blenders

### 8.1. Description

The Ohio Blenders property is comprised of the four parcels listed below. At 2.04 acres (+/-), it is the largest property in the Northwest Triangle, comprising a little less than half the site. Ohio Blenders is bounded to the north by the York Rail property, to the northeast by North Beaver Street at West North Street, to the southeast by the 208-236 North Beaver Street and the Keystone Color Works properties, to the south by West Gay Avenue, and to the west by the Codorus Creek. Most of Ohio Blenders is a flat, open field traversed by York Rail tracks.

Address	Tax Parcel ID No.	Owner	Size
North Beaver Street	03-047-01-0001A	Ohio Blenders, Inc.	0.156 acre
North Beaver Street	03-047-01-0001B	Ohio Blenders, Inc.	0.316 acre
260 North Beaver Street	03-046-01-0006	Ohio Blenders, Inc.	0.948 acre
132-152 North Pershing Avenue	03-046-01-0007	Ohio Blenders, Inc.	0.620 acre

Ohio Blenders unloads feed ingredients (primarily alfalfa) from railcars into vertical silos, grinds and bags the feed, and trucks it off site for distribution. Ohio Blenders has eight feed silos and a small office in the northwest corner of the property.

### 8.2. Historical Uses

#### 8.2.1. Sanborn® Maps

According to the 1887 Sanborn® maps (see Appendix B), most of the property at that time was used as a coal yard. Two Harrisburg & York Railroad rail lines traversed the southern half of the property. Rail sidings branched off these lines to serve the coal yards. A tobacco warehouse was located at North Beaver and West North Streets. North Water Street (later renamed North Pershing Avenue) in the southwestern corner of the site extended as far north as the railroad tracks. Coal sheds and a yard office were located on the northeast corner of North Water Street and West Gay Avenue.

By 1908, Western Maryland Railway had constructed another rail line across the northern edge of the property. Portions of the property were used for coal storage through 1950. The 1933 and 1950 maps, however, indicated that the western half of the Ohio Blenders property was used for utility pole storage, most likely by the nearby Edison Power & Light Company.

The 1933 map indicated a gasoline tank approximately 40 feet east of the coal yard office at the corner of West Gay and North Pershing Avenues (see Figure 2). The 1950 map did not indicate that tank, but showed two other gasoline tanks next to the coal yard office building (see Figure 2). A third gasoline tank was shown 60 feet off the southwest corner

of the feed mill (the former tobacco warehouse) at North Beaver and West North Streets (see Figure 2). Finally, the 1950 map indicated four large horizontal oil tanks abutting the south side of Pennsylvania Railroad tracks, approximately 100 feet west of North Pershing Avenue (see Figure 2). The map suggested that these tanks were above ground.

The 1989 map showed the Ohio Blenders property as it currently appears. The feed mill at West North Street, the feed warehouse and gasoline tanks at North Pershing Avenue, and the four large oil tanks next to the railroad tracks were not shown on the map. Ohio Blenders silos and processing mill were shown in the northwest portion of the property.

### **8.2.2. Street Directories**

According to the R. L. Polk & Co.'s street directories (see Appendix C), a coal and wood yard was located on the North Pershing Avenue parcel from at least 1919 through 1934. That property was listed as vacant through 1950. There were no listings for it after 1950, suggesting that the buildings had been removed.

The portion of the Ohio Blenders property abutting North Beaver Street was occupied by a coal yard and the Hesperheide & Thompson feed mill through 1955. Ohio Blenders was first referenced in the 1997 street directory.

### **8.2.3. Recorded Deeds**

Chains of title for the four component parcels of the Ohio Blenders property are included in Appendix D. Parcel 1A, historically owned by the Western Maryland Railway Company, was acquired in 1988 by Ohio Blenders from Yorkrail, Inc., successor to Western Maryland Railway.

Parcel 1B was originally West North Street, an unopened public roadway owned by the City of York. Ohio Blenders acquired it in 1991 when the City vacated West North Street.

Parcel 6 was owned by Smyser-Royer (to 1920), Edison Power & Light Company/Met Ed (1920-1954), Hesperheide & Thompson, Inc. (1954-74), Bruce Smith (1974-83), and Ohio Blenders (1983 to present). The 1920 deed to Edison Power & Light Company refers to the parcel as the "York Pole Yard."

The Western Maryland Railway Company owned parcel 7 until its acquisition by Ohio Blenders in 1988. This parcel includes a small section on the west side of North Pershing Avenue.

### **8.2.4. Other Historical Information**

A 1957 publication of the York Chamber of Commerce profiled Hesperheide & Thompson, Inc., manufacturers of animal feed. According to this publication, the eight storage silos on the property were constructed in 1954.

## **8.3. Environmental Records**

### **8.3.1. Environmental FirstSearch™ Report**

Ohio Blenders was not listed on any of the standard EPA or DEP environmental databases.

### **8.3.2. DEP Records**

According to eFACTS, Ohio Blenders has an air quality permit for air emissions at its feed processing facility (see Appendix F). The minor source operating permit was issued in May 2000. Ohio Blender's Air Quality case file contained the approved minor source operating permit application (see Appendix G).

### **8.3.3. City of York**

City of York Fire and Rescue Services had no record of any hazardous materials incidents at the property, or of any UST closures at the site.

## **8.4. Site Reconnaissance**

Attempts to obtain Ohio Blender's assistance with the site reconnaissance were unsuccessful. Therefore, the following information is based on what could be observed of the site from its perimeter, and on information obtained from others.

### **8.4.1. General Observations**

The Ohio Blenders property is roughly divided by railroad tracks into two portions. The Ohio Blenders facility is to the north of the tracks. The portion south of the tracks is an open field with no structures.

### **8.4.2. Interior Observations**

The interior of the Ohio Blenders facility was not available for observation. Mr. Longstreet, City of York Wastewater Treatment Plant, was unable to confirm whether Ohio Blenders is connected to the public sewer system. He said that a sewer stub beneath the abandoned West North Street extends partway to the facility, but could not confirm that it serviced the facility. Ohio Blenders is believed to be connected to public water.

### **8.4.3. Exterior Observations**

The Ohio Blenders facility consists of eight vertical grain silos, two rail cars used for storage, and a small control office (see Photo Q). A rail siding extends to the southern side of the silos, and a brick driveway extends partway to the facility from North Beaver Street. The rest of the driveway and all of a truck turnaround lot west of the silos are unpaved. The remainder of the property is an open, grassy field. There was no physical evidence of the former Hesperheide & Thompson feed mill at the intersection of North Beaver and West North Streets (see Photo R).



South of the railroad tracks, there was no evidence of the former Smyser & Son feed mill (see Photo S), coal sheds, or heating oil ASTs (see Photo T). There were subtle changes in topography, but nothing indicative of former site structures.

A concrete pad was discovered approximately 100 feet east of the Ohio Blenders silos (see Photo U). The pad was at the approximate location of a storage structure noted on the 1950 Sanborn® map. That map also indicated a gasoline tank near the pad (see Figure 2), but no field indications of a UST were discovered in the area.

Six electric transformers were observed at the northern edge of the Ohio Blender's access driveway. Three utility-owned transformers were mounted on Met Ed pole #28511-23199. The other three transformers (Allis-Chalmers) provided power to the Ohio Blenders facility and were mounted on a metal framework to the west of the Met Ed pole (see Photo V). There were no utility identifiers on the framework or transformers, indicating that the three Allis-Chalmers transformers were privately owned. None was labeled as to PCB content. The ground surface beneath the transformers was covered with gravel.

Mr. Tom Lanni, General Manager for York Rail, said that the adjoining York Rail property and the portion of the Ohio Blenders property formerly owned by the railroad were used to receive and store coal for customers and not the railroad. He said that the railroad's coal storage yard was located at the Queen Street rail yard, east of the Northwest Triangle. The Queen Street rail yard was also where coal ash from the locomotives would have been deposited. He did not know of any use of the Ohio Blenders property by the railroad for ash disposal.

## **8.5. Summary**

The Ohio Blenders property consists of four parcels that historically were used primarily for coal and feed distribution, or railroad activities related to those operations. Other uses included a tobacco warehouse (late 1800s and early 1900s) and utility pole storage yard (1950s). Two coal yards/feed warehouses operated on the site until the 1950s, one at the eastern edge of the property adjacent to North Beaver Street (Hespenheide & Thompson), and one in the southwestern corner (Smyser & Son). Coal arrived at the site by rail, where it was unloaded and stored on the ground in long wooden sheds. It was distributed to customers by truck, or purchased at the site by retail customers. By 1950, both facilities had discontinued coal distribution and were solely feed mills.

The current site owner, Ohio Blenders, erected the site's eight grain silos in the 1950s. Ohio Blenders blends and distributes animal feed. Three utility-owned and three privately-owned electric transformers are located on the site. The privately owned transformers provide power for the Ohio Blenders facility. No other structures are present at the site.

As many as eight petroleum storage tanks are believed to have been located on the Ohio Blenders property: four large oil ASTs and three gasoline USTs in the southwestern corner, and one gasoline UST near the northeastern corner. The ASTs have been removed, but it is undetermined whether the USTs were removed or abandoned. None of the tanks was registered, nor was there any record of their removals/abandonments. There was no surficial evidence of any of these storage tanks.

## **8.6. Discussion**

As with other properties in the Northwest Triangle used for coal storage, the historical use of the Ohio Blenders property for coal storage may be an environmental concern. On-site soils have the potential for elevated levels of metals and PAHs from the coal historically stockpiled at the site. There was no documented evidence suggesting that the property was used for coal ash disposal.

Hazardous materials and wastes are not typically encountered at significant levels in feed mills or feed processing facilities. Therefore, the use of the property for animal feed processing, storage, and sales is not an environmental concern.

Electric transformers manufactured prior to 1989 have the potential to contain dielectric coolant that contains or is contaminated with PCBs. A release of PCB transformer coolant can result in localized soil contamination for which the transformer owner is responsible to remediate. Thus, Met Ed would be responsible to clean up releases from its three transformers, and the owner of the three Allis-Chalmers transformers, presumably Ohio Blenders, would be responsible for clean up of any releases from them. As the three Allis-Chalmers transformers had no PCB labels, it is possible that they contain PCB coolant.

Sanborn® maps suggest that four gasoline USTs and four oil ASTs were located at the site. As Sanborn® maps typically include only gasoline USTs and larger oil ASTs, other storage tanks, such as waste oil or heating oil USTs, may be present at the site. The four oil ASTs are no longer present at the site; it is unknown if the gasoline USTs were removed or abandoned. There was no closure documentation available for any of the tanks. As with all undocumented storage tank closures, there is the possibility for residual soil and/or groundwater contamination from the former storage tanks.

The use of a portion of the property as a utility pole storage yard is an environmental concern due to the potential for localized soil contamination from creosote compounds. Creosote, a common preservative used on utility poles, contains PAHs and other related organic compounds, many of which are considered hazardous. These compounds can wash off creosote-treated poles and result in localized soil contamination.

## **8.7. Conclusions**

The following environmental conditions were identified in connection with the Ohio Blenders property:

- The historic use of the site as a coal storage yard may have resulted in elevated levels of metals and PAHs in on-site soils. There was no evidence to suggest that the site was used for coal ash disposal.
- The historic presence and undocumented closures/abandonments of four ASTs and four USTs and the potential for residual soil contamination.
- The possible presence of additional, undocumented USTs at the property.
- The use of a portion of the property as a storage yard for utility poles may have resulted in localized soil contamination from creosote compounds.
- Three electric transformers believed to be owned by Ohio Blenders may contain dielectric coolant that contains or is contaminated with PCBs.

## 9. York Rail

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### 9.1. Description

For the purposes of this assessment, the York Rail property encompasses the remainder of the Northwest Triangle (see Figure 1), including the closed northern terminus of North Pershing Avenue in the southwest corner, and the parcel listed below, located in the northeast corner. This parcel is the only York Rail parcel for which a recorded deed could be located.

Address	Tax Parcel ID No.	Owner	Size
North Beaver Street	03-047-01-0001	York Rail, Inc.	0.418 acre

### 9.2. Historical Uses

#### 9.2.1. Sanborn® Maps

The 1887 map (see Appendix B) indicated that tracks of the Harrisburg & York Railroad traversed the southern part of the property. The northern portion of the property was a coal and wood yard. Codorus Steam Soap Works was located on the southern bank of the Codorus Creek, at the North Beaver Street bridge. The soap works was not depicted on subsequent maps.

On the 1894 map, the railroad tracks were labeled “P. R. R. Frederick Div,” indicating that they had been acquired by the Pennsylvania Railroad. A shed and a small structure, labeled “grain and feed,” were located on the northwest corner of North Beaver and West North Streets.

The 1908 map indicated Western Maryland Railway tracks and two coal trestles across the northern portion of the property. The feed and grain structure depicted in the 1894 map was labeled “E A Dempwolf, acid mfr.” Subsequent maps showed this building, but labeled it as the office and scales for the coal yard. A small structure, labeled “R. R. Shed” (1908) and “Tool Ho.” (1933-89), was present between the northernmost track and the Codorus Creek. The railroad tracks and coal trestles persisted through the 1989 map.

#### 9.2.2. Street Directories

Western Maryland Railway was listed as the property’s occupant in the 1919-50 street directories (see Appendix C). There were no listings for the property from 1955 to 1992.

#### 9.2.3. Recorded Deeds

York Rail, Inc. acquired the property in 1988 from Western Maryland Railway Company on a quitclaim deed.

### **9.3. Environmental Records**

#### **9.3.1. Environmental FirstSearch™ Report**

The York Rail property was not identified on any of the EPA or DEP environmental databases.

#### **9.3.2. DEP Records**

There was no eFACTS listing for the property, nor were there any DEP case files for it. There were no documents regarding the property in DEP's City of York municipal files.

#### **9.3.3. City of York**

City of York Fire and Rescue Services had no record of any hazardous materials incidents or storage tank closures at the property.

### **9.4. Site Reconnaissance**

Mr. Tom Lanni, General Manager for York Rail, said that the York Rail property historically stored coal for distribution to customers and not for railroad use. He said that the railroad's coal yard was at the Queen Street rail yard, east of the property. The Queen Street yard was also the location where coal ash from the locomotives would have been deposited. He said that to the best of his knowledge, the property was not used for ash disposal.

#### **9.4.1. General Observations**

Three sets of railroad tracks traverse the York Rail property. The northern rail line enters the northwest corner of the property from an iron trestle bridge over the Codorus Creek, parallels the Creek, and splits twice before exiting the northeast corner of the property. The central line is a single line that traverses the approximate center of the site in an east west direction. A siding off this line serves Ohio Blenders. The southern line is a single line that enters the site at West Gay Avenue and exits it near West North Street.

#### **9.4.2. Interior Observations**

Not applicable—no buildings are present at the site.

#### **9.4.3. Exterior Observations**

One wooden coal trestle and the foundations for a second were observed in the northeast corner of the site (see Photo W). The area between the trestles was paved with concrete, and the foundation for the scale house was noted at northwest corner of North Beaver and West North Streets (see Photo X). There were no indications of the small tool shed at the northern tracks depicted in the Sanborn® maps.

The railroad tracks at the property are all on stone ballast roadbeds. York Rail routinely sprays herbicides on their rights-of-way to suppress vegetation growth. Grassy vegetation near the northern line was chlorotic and stressed, suggesting a recent application of herbicide.

## **9.5. Summary**

The York Rail property historically was used for railroad-related purposes and coal storage. The tracks across the southern portion of the Northwest Triangle predate 1887; the first rail tracks across the northern portion date from the 1890s, and, by 1908, the northern portion was a small railroad switching area with several railroad lines and three sidings. The presence of a small tool shed in the northeast portion of the property, as indicated by historic maps, suggests that railroad may have used the switching area for track maintenance or material storage as well.

Prior to construction of the railroad tracks in the 1890s, the northern portion of the property was a coal storage yard. The area continued to be used for coal storage through the 1950s. The coal trestle in that area dates from the early 1900s. Coal stockpiled in this area was for distribution to customers, and not for railroad use. The York Rail property is not believed to have been used for locomotive ash disposal.

Historical maps indicated that a small soap maker was located in the northeast corner of the property, on the banks of the Codorus Creek in the 1880s, and that an acid manufacturer occupied a structure at the intersection of North Beaver and West North Streets briefly in the early 1900s. The structure at North Beaver and West North Streets was later used as the coal yard scale house.

As mentioned previously in this report, the U. S. Army Corps of Engineers did extensive work to the banks of the Codorus Creek in the 1930s. The creek bank at the York Rail property slopes sharply down to the Creek and is reinforced with stone blocks and poured concrete. Based on the elevation of the creek bed in relation to the site's surface, it appeared that fill material might have been added to the northwest portion of the Northwest Triangle as part of the Army Corps' work.

## **9.6. Discussion**

The historical use of a portion of the York Rail property for coal storage may be an environmental concern, and soils in that area may have elevated levels of metals and PAHs from coal stockpiled there. As there was no documented evidence suggesting that the property was used for coal ash disposal, any contamination present is expected to be localized and in surface soils.

Contamination encountered at rail yards is typically most significant at engine maintenance buildings and fueling areas. Track and switching areas may have diesel fuel- and oil-contaminated surface soils and rail ballast from constant use and repetitive minor leakage of engines and rail cars. Maintenance/material storage yard areas have the potential for localized soil contamination due to poor housekeeping and spills of oils,

hazardous materials, paints, solvents, and creosote from railroad ties. Thus, there is the potential for the presence of petroleum-impacted and, to a lesser extent, paint-, creosote-, and solvent-impacted surface soils at the York Rail property.

#### **9.6.1. Conclusions**

The following environmental conditions were identified in connection with the York Rail property:

- The historic use of a portion of the site as a coal storage yard may have resulted in elevated levels of metals and PAHs in on-site soils. There was no evidence to suggest that the site was used for coal ash disposal.
- The 100+ year history of railroad tracks and a small switching yard at the property may have resulted in petroleum-impacted and, to a lesser extent, paint-, creosote-, and solvent-impacted surface soils.

## 10. Findings

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Based on the information collected for this environmental assessment of the Northwest Triangle, Edge Environmental Inc. presents the following findings.

- The Northwest Triangle is comprised of at least 14 parcels, owned by six owners. The site is currently used for residential, commercial, transportation, and light industrial purposes.
- With the possible exception of Ohio Blenders, public water and sewer serve all structures on the Northwest Triangle. Public sewer was extended to the area in the early 1900s.
- There are no documented releases of hazardous substances or petroleum products at any of the site's properties. No obvious indications of soil or groundwater contamination were observed at any of the site properties.
- Local ground and surface water are expected to flow to the north and discharge to the Codorus Creek. The water table is estimated to be approximately 20 feet below ground surface. Reconfiguration of the Codorus Creek by the Army Corps of Engineers in the 1930s may have resulted in filling of the northern and western edges of the site.
- Large portions of the site historically were used to store coal for retail sale and distribution. The coal was brought in by rail and stored on the ground surface, much of it under wooden sheds. There was no evidence that coal ash was disposed on the site.
- The property at 146-150 North Beaver Street was a foundry and machine shop for a farm equipment manufacturer, and an auto dealer and repair facility. It is currently occupied by B & C Fasteners, a wholesale distributor of construction supplies. B & C Fasteners is a RCRA small quantity of hazardous waste.
- An inground vehicle lift in the B & C Fasteners' warehouse has been filled in with concrete. Three floor drains in the warehouse are believed to discharge to the public sewer system. Vent and fill pipes for an unknown storage tank were discovered on an exterior wall of the building. One abandoned heating oil UST is located on the site.
- Keystone Color Works has manufactured organic and inorganic pigments at their facility since 1919. The process of chemically producing pigments historically resulted in large volumes of wastewater that were treated at the facility prior to discharge to the public sewer system. Waste sludge from the treatment, some of which was hazardous, was drummed and disposed in off site landfills.



- In 1989, EPA investigated Keystone Color Works' disposal of waste sludge that contained elevated levels of lead and chromium, elements considered to be hazardous. The investigation concentrated on the storage of drums containing waste sludge at the facility prior to disposal at a landfill. EPA determined that the drum storage time exceeded regulations, but discovered no evidence that waste was being improperly disposed on site. EPA concluded that no further investigation was needed.
- Keystone Color Works no longer chemically produces pigments at their facility, but rather blends, mixes, and packages other pigments. It is now a RCRA small quantity generator of hazardous waste.
- Other than sanitary wastewater to the public sewer system, all wastewater generated at the Keystone Color Works facility is captured and treated by their wastewater treatment system prior to discharge to the public sewer system.
- Keystone Color Works has stored raw materials and finished products—some of which are considered hazardous or contain hazardous ingredients—throughout the building for at least 80 years. Walls, floors, pigment vats, etc., in many parts of the building are significantly stained.
- Soils at Keystone Color Works may have elevated levels of lead weathered from lead-based paint on exterior windows and sills.
- The buildings at 200-206 North Beaver Street predate the 1880s. They have only ever been used as residences.
- The 208-236 North Beaver Street property was a coal yard, gasoline station, and heating oil distributor. For the last 20 years, Weaver's Auto Body, an auto body shop, and P & S Motors, a used car dealer, have occupied it. Weaver's Auto Body is a RCRA small quantity generator of hazardous waste, and paints and related cleaning solvents are used and stored at the body shop.
- Most of the railroad tracks at the Northwest Triangle have been there for over 100 years. Historically, additional rail lines and sidings were also present at the site. A small rail yard in the site's northeastern corner may have been used as a maintenance/materials storage yard.
- The Ohio Blenders feed processing mill has been in operation since the 1950s. Two other feed mills historically were located on that property.
- A portion of the Ohio Blenders property was used as a storage yard for utility poles.
- Six heating oil ASTs were observed at the site. No active USTs were observed at the site.

- In 1987, eight USTs were removed and one UST was closed in place at the 208-236 North Beaver Street property. No confirmatory soil samples were collected during the closures.
- At least four ASTs and nine USTs are believed to have been located on other parts of the Northwest Triangle, with the possibility of additional, undocumented USTs and ASTs. There was physical evidence of only one of the former USTs, and none of the former ASTs. No closure documentation was available for any of these storage tanks.
- All structures on the Northwest Triangle were constructed prior to 1970, and, therefore, are assumed to contain asbestos-containing materials and lead-based paint. Mercury-containing fluorescent light bulbs and electric switches, and PCB-containing fluorescent light ballasts may also be present in some structures.
- Six electric transformers are located on the Ohio Blenders property. Three are utility owned, and three are privately owned, most likely by Ohio Blenders. The PCB content of the three privately owned transformers is unknown.

## **11. Discussion**

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The potential issues at the site can be divided into two groups: environmental issues that potentially have resulted in contamination of soils and/or groundwater at the site, and; issues regarding materials contained within site buildings that may require special characterization and disposal prior to change in use, demolition, or renovation.

### **11.1. Environmental Issues**

Pennsylvania's Land Recycling Act of 1995 (Act 2) established voluntary remediation standards for contaminants in soil and groundwater based on the use of the site (residential or non-residential) and the status of the aquifer at the site (used or non-use). Residential standards are more stringent than non-residential standards, and used aquifer standards are more stringent than non-use aquifer standards. The application of these standards to soil and groundwater samples collected from specific areas of the site will be important in determining which areas will be most suitable for residential use and which for non-residential use. Furthermore, areas that exceed standards can be remediated to meet one or a combination of standards.

No obvious indications of existing contamination were discovered at the site during the environmental assessment, nor were there any documented hazardous material or waste incidents likely to have resulted in contamination of the site. Therefore, the potential environmental issues identified in this report are related to the site's current and former uses.

#### **11.1.1. Coal Storage**

Large areas of the site were used for coal storage and distribution in the late 1800s and early-to-mid 1900s. During that time, coal was stored either on the ground in uncovered piles, or on the ground under wooden sheds.

Most documented environmental issues relating to coal are with the by products of its combustion, and not with coal as a raw material. Personnel from DEP's Southcentral Region Land Recycling Program reported having seen no characterizations or remediations of coal storage yards since the inception of Act 2 in 1995.

A number of industrial and government sites across the United States, however, have been characterized for soil contamination resulting from coal storage, and some have undergone remediation. While this environmental assessment is not an exhaustive review of literature regarding coal storage yard characterization and remediation, there is some evidence suggesting that soil contaminated with metals and PAHs may be encountered at areas historically used for coal storage.

Metals and PAHs are direct contact and ingestion hazards that, in general, are not very mobile in soil. Thus, if these contaminants are present, they most likely will be encountered in shallow soils (0-2 feet). Approximately half of the Northwest Triangle

was used for coal storage at one time or another (see Figure 3). Most of the coal yards were situated on the eastern half of the site, the most accessible area of the Northwest Triangle and the area most likely to experience a change in use with redevelopment. Elevated levels of metals or PAHs in shallow soils may be a factor in determining whether these areas can be used for residential or non-residential purposes.

### **11.1.2. Storage Tanks**

Fifteen USTs (nine gasoline and six heating oil) and ten ASTs (all oil or heating oil) are documented to have been located on the site at one time or another (see Figure 2). There is the possibility of additional, undocumented storage tanks. Of the known tanks, six 275-gallon heating oil ASTs and one abandoned heating oil UST were observed on the site. Aboveground storage tanks storing heating oil for consumptive use on the premises are exempt from storage tank registration regulations. The heating oil ASTs were all relatively new and in good condition, with no indications of leaks or releases. Thus, they are not a likely source of contamination for the site.

The history and fate of the other 19 storage tanks is less clear. Some of the USTs were in use as early as the 1930s. All are believed to have been removed or abandoned prior to promulgation of tank registration and closure regulations in 1989. There is strong evidence that the nine USTs located on the 208-236 North Beaver Street property were closed in 1987—eight by removal and one by closure in place. No reliable confirmatory soil samples were collected during closure, although supporting documents suggest that no gross contamination was encountered during removal. There is no closure documentation for any of the other USTs or ASTs at the site.

Prior to 1989 tank closure regulations, it was not uncommon for tank owners to remove or abandon in place their unused USTs without collecting confirmatory soil samples. Soil or groundwater samples were only required at tank locations with known releases. With no confirmatory samples to document the tank closures, there is the possibility for residual contamination at one or more former tank locations. Contamination most likely will be encountered in sub-surface soils (>2 feet), and is expected to be localized at the tank excavations.

### **11.1.3. Utility Pole Storage**

Utility poles were stored on a portion of the Ohio Blenders property for over 15 years. The areal extent of the pole storage yard is not known, but it may have covered several thousand square feet. Creosote, a preservative commonly used on utility poles, contains PAHs and other Semi-Volatile Organic Compounds (SVOCs) that can leach into underlying soils. If the utility poles stored in this area were preserved with creosote, there is the potential for underlying soils to be impacted with elevated levels of creosote compounds. As creosote compounds are not very mobile in soil, contamination from creosote compounds is expected to be limited in depth to the storage yard's shallow soils, but may extend laterally over thousands of square feet.

#### **11.1.4. Rail Use**

Surface soils and rail ballast on the Northwest Triangle's rail lines may be contaminated with diesel fuel, oil, and herbicides from historic rail use. Minor, localized soil contamination may also be encountered next to the current rail lines (formerly rail lines and sidings) and, to lesser extent, beneath the concrete floor of the building at 146-150 North Beaver Street, a former rail siding. In addition to diesel fuel, oil, and herbicides, soils at the small switching yard in the site's northeast corner may have been impacted by spills of paint and solvents, and creosote from rail ties stored there. Contamination of the rail lines and yard, if any, is expected to be minor, localized, and limited to soils and ballast in those areas only, most of which are actively used and maintained by York Rail.

#### **11.1.5. Organic and Inorganic Pigment Production**

The production of organic and inorganic pigments by Keystone Color Works involved the use of hazardous materials including acids, bases, solvents, metal-containing compounds, and laboratory reagents. Historically, these materials were stored and used throughout Keystone Color Works' structure. The building's interior, especially its wooden elements (floors, walls, supports, and pigment production tanks), is now significantly pigment stained. The staining is limited to the building's interior—there were no indications of pigment staining on the building's exterior or on neighboring properties. Keystone Color Works' production processes have changed with the last 10 years, resulting in smaller quantities of hazardous materials and waste at the facility.

The pigment production process also generated large quantities of wastewater that required treatment prior to discharge. Keystone Color Works' has a wastewater collection and treatment system that has historically handled all wastewater generated at the facility, except for sanitary wastewater. Keystone Color Works is believed to have discharged its wastewater to the public sewer since its inception. Solid waste has disposed off site. There is no evidence that Keystone Color Works ever discharged wastewater directly to the ground surface or the nearby Codorus Creek, or that it ever disposed of solid waste on its property or adjoining properties.

Therefore, it does not appear that the Keystone Color Works' processes have resulted in soil and/or groundwater contamination of its property or of neighboring properties. The greatest potential for contamination at the Keystone Color Works' property is to the interior of the building, especially the wooden elements.

#### **11.1.6. Auto Repair and Auto Body**

Two site properties have been used for auto repairs: 146-150 North Beaver Street and 208-236 North Beaver Street. The 146-150 North Beaver Street property was occupied by several auto dealerships and by the electric utility's garage from approximately 1920 to 1980. Petroleum products and solvent cleaners would have been used and stored at the property during that time, and there was at least one inground hydraulic lift in the building. The inground lift has since been removed and filled with concrete.

The building at 146-150 North Beaver Street covers the entire site. Its floors are poured concrete, and three floor drains are most likely connected to public sewer, thereby reducing potential avenues for petroleum products and solvent cleaners to contaminate underlying soils. If the floor drains do not discharge to the public sewer, they are a potential pathway for contamination. There were no documented incidents or surficial indications of improper waste disposal on the property.

Weaver's Auto Body has used and stored hazardous substances—paint, paint-related products, cleaning solvents, and petroleum-based products—for approximately 20 years. Improper use or disposal of any of these substances has the potential to have resulted in soil and/or groundwater contamination. The toxicity and mobility of paint mixtures and related cleaning solvents make groundwater contamination an environmental concern. There was some surficial evidence of possible soil contamination outside the body shop building.

Additionally, there is the potential for localized soil contamination at the body shop's inground hydraulic lift. As with the floor drains in the 146-150 North Beaver Street building, the floor drains in the body shop garage are believed to discharge to the public sewer, but their discharge point should be confirmed.

#### **11.1.7. Feed Milling and Storage**

Hazardous materials and wastes are not typically encountered at significant levels in feed mills or feed processing facilities. Therefore, the current use of the site by Ohio Blenders, and the former use by Hesperheide & Thompson Inc. are not likely to have resulted in soil and/or groundwater contamination.

#### **11.1.8. Equipment Manufacturing**

The Keystone Color Works and 146-150 North Beaver Street properties were used for manufacturing of farm equipment in the late 1800s and early 1900s. During that time, the northern half of the 146-150 North Beaver Street property was a machine shop or a foundry; the southern half had a rail siding and was used for material storage. The southern half of the property was enclosed and a concrete floor poured when the farm equipment manufacturer closed and the property became an auto dealership in approximately 1920.

The machine shop most likely used oils, greases, and petroleum-based cleaners; the foundry most likely generated foundry sand waste that may have contained metals. On-site disposal of any of these substances or wastes may potentially have resulted in localized soil contamination that would have occurred prior to completion of the building's concrete floor in 1920. Thus, any residual soil contamination from farm equipment manufacturing is most likely isolated beneath the concrete floor, with the floor acting as a barrier to prevent direct contact with the soils.

### **11.1.9. Other**

Two other potential environmental issues not related to site uses were identified at the Northwest Triangle. Three electric transformers located on the Ohio Blenders property may contain dielectric coolant oil that contains or is contaminated with PCBs. The transformers provide power to the Ohio Blenders facility and Ohio Blenders is believed to own them. As none of the transformers had PCB labels, they are presumed to contain PCBs, and a release of PCB oil has the potential to result in localized soil contamination. The transformers' owner would be responsible for their proper disposal as well as remediation of any contamination resulting from a release of PCB transformer oil.

Soil along the western foundation of the Keystone Color Works building may have elevated levels of lead weathered from exterior windows and sills. Given the age of the building, the windows and sills are presumed to have been painted with lead-based paint that, when weathered, can leach lead, resulting in contamination of soil beneath the windows and sills. As the ground surface beneath windows at the other sides of the building is paved, there is little potential for its soil contamination.

## **11.2. Building Materials Issues**

The waste issues discussed below concern conditions and toxic materials that may be present inside the site's buildings. Disturbance or removal of affected materials during renovation or demolition may require special handling techniques to eliminate exposure, and may generate in wastes that have specific characterization and disposal requirements.

The building materials issues may fall under the aegis of a number of different agencies including, DEP's Waste Management and Air Quality Programs, the U. S. Occupational Safety and Health Administration (OSHA), the U. S. Department of Housing and Urban Development (HUD), EPA, and the City of York Codes Enforcement.

### **11.2.1. Contaminated Building Materials**

Historical uses may have resulted in contamination of building materials at Weaver's Auto Body, and of building materials and process equipment at Keystone Color Works. Contaminated flooring, concrete block walls, and ceilings may be encountered in the spray paint room and materials storage area at Weaver's Auto Body.

As mentioned previously, much of the interior of the Keystone Color Works building was significantly stained, and several areas were etched or degraded by acid. The 300- and 3,000-gallon pigment tanks, the filter presses, and related production equipment were significantly discolored or stained. Contaminated materials may be a direct contact and inhalation hazard.

### **11.2.2. Asbestos-Containing Materials**

Prior to 1978, asbestos was commonly used in construction materials such as flooring, fireproofing, boiler and thermal system insulation, and roofing. Given the pre-1978 construction date of all on-site structures, they are presumed to have asbestos-containing materials.

### **11.2.3. Lead-Based Paint**

Lead-based paint was widely used in buildings constructed prior to 1978, and most especially those constructed prior to 1950. As all site buildings were constructed prior to 1978, they are presumed to have surfaces painted with lead-based paint.

### **11.2.4. PCB-Containing Fluorescent Light Ballasts**

Fluorescent light ballasts manufactured prior to 1979 may contain small amounts of PCBs. Ballasts manufactured after 1979 do not contain PCBs and must be labeled as non-PCB. Fluorescent light fixtures were observed in site buildings and, given their pre-1979 construction dates, some light ballasts may contain PCBs.

### **11.2.5. Mercury-Containing Switches and Fluorescent Light Tubes**

Fluorescent light tubes and older electric switches may contain small quantities of mercury. Given the age of the site's buildings, some may have mercury-containing switches, especially on old electric panels.



## **12. Conclusions**

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Based on the information gathered and reviewed for this report, the following Areas of Concern (AOCs) have been identified at the Northwest Triangle. The AOCs, illustrated in Figure 4, are areas where historic or current uses have the potential to have resulted in soil and/or groundwater contamination.

AOC 1 – Rail Yard. Surface soil and rail ballast may be contaminated with diesel fuel, oil, and herbicides from historic rail use, and, to a lesser extent, paint, solvents, and creosote from rail ties, due its possible use as a rail maintenance/material storage yard.

AOC 2 – Coal Yard No. 1. Shallow soils may have elevated levels of metals and PAHs from coal storage. Soils at the former gasoline tank may have residual gasoline contamination. Additional undocumented USTs may be present.

AOC 3 – Utility Pole Storage Yard. Soils may have elevated levels of creosote compounds from its historic use as a utility pole storage yard. Creosote compounds are not very mobile, and any contamination most likely will be encountered in shallow soils.

AOC 4 – Weaver's Auto Body. Soils at the paint storage trailer, beneath the spray paint booth's exhaust fan, and near the body shop's doors and windows may have localized contamination from paint mixtures and related cleaning solvents. Groundwater near the body shop may also be contaminated due to the toxicity and mobility of these substances. Localized soil contamination may be encountered at the body shop's inground hydraulic lift and at the former UST locations. Additional undocumented USTs may be present at the site. Shallow soils may have elevated levels of metals and PAHs from coal storage.

AOC 5 – Coal Yard No. 2. Shallow soils may have elevated levels of metals and PAHs from coal storage. Localized soil contamination may be present at the former gasoline USTs and oil ASTs locations. Additional undocumented USTs may be present.

AOC 6 – Keystone Color Works. Soils beneath exterior windows on the building's west side may have elevated levels of lead weathered from lead-based paint.

AOC 7 – B & C Fasteners. Localized soil contamination may be associated with the abandoned heating oil UST. An additional pair of vent and fill pipes on the building's southern wall suggests the presence of another storage tank.

AOC 8 – Ohio Blenders Transformers. Three electric transformers, most likely owned by Ohio Blenders, may contain PCB dielectric coolant, and soils beneath the transformers may have elevated levels of PCBs.

This report also identified the following Issues of Concern (IOCs) regarding conditions or toxic materials that may be encountered inside the site's buildings during renovation or demolition.

IOC 1 – Contaminated Building Materials. Contaminated flooring, concrete block walls, and ceilings may be encountered in the spray paint room and materials storage area at Weaver's Auto Body. Much of the interior of the Keystone Color Works building—especially the 300- and 3,000-gallon pigment tanks, the filter presses, and related production equipment—is significantly stained, and may be contaminated.

IOC 2 – Asbestos-Containing Materials. Given the pre-1978 construction date of all on-site structures, asbestos-containing materials are assumed to be present.

IOC 3 – Lead-Based Paint. As all site buildings were constructed prior to 1978, they are presumed to have surfaces painted with lead-based paint.

IOC 4 – PCB Fluorescent Light Ballasts. Fluorescent light fixtures present in site buildings may have ballasts that contain small quantities of PCBs.

IOC 5 – Mercury-Containing Fluorescent Light Tubes and Electric Switches. Fluorescent light tubes and older electric switches present in the site's buildings may contain small amounts of mercury.

### **13. Recommendations**

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Edge Environmental Inc. makes the following recommendations regarding potential environmental issues at the Northwest Triangle.

AOC 1 – Rail Yard. Collect shallow soil samples and analyze for diesel fuel parameters, priority pollutant metals, priority pollutant SVOCs, and pesticides/PCBs.

AOC 2 – Coal Yard No. 1. Conduct a geophysical survey of AOC 2 to locate the former gasoline UST and identify any other suspect UST locations. Collect Geoprobe™ soil samples from identified UST area and analyze for gasoline parameters. Collect Geoprobe™ soil samples at former coal storage areas and analyze them for priority pollutant metals and SVOCs.

AOC 3 – Utility Pole Storage Yard. Collect shallow soil samples and analyze them for creosote compounds.

AOC 4 – Weaver's Auto Body. Conduct a geophysical survey of AOC 4 to locate former UST areas and confirm removals, as well as identify any other suspect UST locations. Collect Geoprobe™ soil borings from identified UST areas and analyze for gasoline or heating oil parameters. Collect Geoprobe™ soil samples at inground hydraulic lift and analyze them for priority pollutant SVOCs. Confirm that the body shop floor drain discharges to the public sewer system. Collect Geoprobe™ soil samples at the auto body building and analyze them for priority pollutant Volatile Organic Compounds (VOCs). Detection of VOCs may indicate the need for a groundwater investigation.

AOC 5 – Coal Yard No. 2. Conduct a geophysical survey of AOC 5 site to locate former UST and AST areas, as well as identify any other suspect UST locations. Collect Geoprobe™ soil samples at UST and AST areas and analyze them for gasoline or heating oil parameters. Collect Geoprobe™ soil samples at former coal storage areas and analyze them for priority pollutant metals and SVOCs.

AOC 6 – Keystone Color Works. Collect shallow soil samples from beneath exterior windows on the western side of the building and analyze them for lead.

AOC 7 – 146-150 North Beaver Street. Geophysically locate the abandoned heating oil UST. Collect Geoprobe™ soil samples from around the UST and analyze them for heating oil parameters. Electromagnetically trace the additional pair of fill and vent pipes on the buildings southern wall to locate any additional storage tanks. Confirm that warehouse floor drains discharge to the public sewer system.

AOC 8 – Ohio Blenders Transformers. Collect samples of each transformer's dielectric coolant and of shallow soils beneath transformers. Analyze them for PCBs.

The following recommendations regarding the IOCs assume changes in use for the Keystone Color Works and B & C Fasteners buildings, and changes in use or demolition of the Weaver's Auto Body and P & S Motors buildings.

IOC 1 – Contaminated Building Materials. Decontaminate and wipe test demolition material prior to off-site disposal. Prior to renovations, wipe test materials to remain in place. Conduct air clearance testing as needed prior to building reoccupancy.

IOC 2 – Asbestos-Containing Materials. Inspection of the site's structures should be completed by a licensed asbestos building inspector prior to demolition or disturbance of suspect asbestos-containing materials.

IOC 3 – Lead-Based Paint. The site's structures should be inspected by a licensed lead-based paint inspector disturbance of suspect lead-based paint surfaces.

IOC 4 – PCB Fluorescent Light Ballasts. If fluorescent light fixtures are to be removed during renovation or demolition, each fixture should be inspected for ballasts with PCB labeling. Unless labeled non-PCB, all fluorescent light ballasts should be considered PCB containing and disposed accordingly.

IOC 5 – Mercury-Containing Fluorescent Light Tubes and Electric Switches. Every effort should be made during building renovation or demolition to keep fluorescent light bulbs intact. Unbroken bulbs may go to a certified recycler without being considered hazardous. Broken fluorescent light bulbs and mercury-containing switches are considered hazardous, and must be disposed of as such.

## 14. References

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### 14.1. Physical Setting Sources

- Alexandria Drafting Company, copyright 2001, *York County, Pennsylvania—10<sup>th</sup> Edition*, Map 21.
- United States Geologic Survey 7.5-Minute Series Topographic Map, 1954, photorevised 1990, York, PA quadrangle.
- United States Geologic Survey, image acquired October 17, 2003, [www.terraserver-usa.com](http://www.terraserver-usa.com), aerial image April 14, 1999.
- United States Department of Agriculture/Soil Conservation Service, 1967, *Soil Survey of York County, Pennsylvania*, Sheet 24.
- Wilshusen, J. Peter, 1979, *Geologic and Mineral Resource Map of the Greater York Area, York County, Pennsylvania*, Pennsylvania Topographic and Geologic Survey, Environmental Geology Report 6, Plate 1.
- York County Geographic Information Access System, October 17, 2003, [www.york-county.org](http://www.york-county.org), GIS map.
- York County Tax Assessment Office, Tax Assessment Map Ward 3, Map 1.

### 14.2. Historical Use Sources

- Recorded Deeds, October 30, 2003, York County Recorder of Deeds.
- Historical Aerial Photographs—Pennsylvania Geologic Survey Library, Middletown, Pennsylvania.
- Sanborn® Maps, October 11, 2003, The Sanborn® Library, LLC, Environmental Data Resources, Inc.,.
- Street Atlases, November 21, 2003, R. L. Polk & Co.'s, York Street Directory, York County Heritage Trust Library.
- Peckham, Betsy, 1957, *York, Pennsylvania, A Dynamic Community Forges Ahead*, York Chamber of Commerce.

### 14.3. Environmental Record Sources

- InfoMap Technologies, Inc., October 11, 2003, Environmental FirstSearch™ Report.

**Table 2: Environmental Records Searched and Distances**

Record	Name	Federal or State	Search Distance
NPL	National Priority List	Federal	1.0 mile
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System	Federal	0.5 mile
CERCLIS NFRAP	CERCLA No Further Remedial Action Planned	Federal	Site and adjoining properties only
RCRA CORRACTS TSD facilities	Resource Conservation and Recovery Act Treatment Storage and Disposal facilities under Corrective Action	Federal	1.0 mile
RCRA non-CORRACTS TSD facilities	RCRA TSD facilities not under Corrective Action	Federal	0.5 mile
RCRA generators	RCRA hazardous waste generators	Federal	Site and adjoining properties only
ERNS	Emergency Response Notification System	Federal	Site only
PAPL	Pennsylvania Priorities List	State	1.0 mile
	State-equivalent CERCLA	State	0.5 mile
SWL	Solid Waste Facilities List	State	0.5 mile
LUST	List of Confirmed Releases	State	0.5 mile
UST	Regulated Storage Tank Listing	State	Site and adjoining properties only

- DEP eFACTS, November 25, 2003, [www.dep.pa.state.us/efacts](http://www.dep.pa.state.us/efacts).
- DEP Files, November 7, 2003, DEP Southcentral Regional Office, Harrisburg, Pennsylvania.

**Table 3: DEP Records Reviewed**

Program Area	File
Waste Management	County: General, Spills City of York: General Case File: Keystone Color Works

Water Management	County: General City of York: General, Groundwater, Manure
Storage Tanks	County: General Case File: Keystone Color Works,
Hazardous Site Cleanup Act	Case File: Keystone Color Works
Air Quality	Case File: Ohio Blenders of PA, Inc.

#### 14.4. Interview Sources

- Mike Shanabrook, February 3, 2004, York City Fire and Rescue Services.
- Tracey Kraft, April 27, 2004, co-owner, 208-236 North Beaver Street, in person.
- William Kraft, April 27, 2004, co-owner, 208-236 North Beaver Street, in person.
- Alexandro Pabon, April 27, 2004, co-owner, P & S Motors, in person.
- Dwayne Rodes, April 28, 2004, co-owner, 200-204 North Beaver Street, in person.
- Craig Kauffman, April 27, 2004, owner, 206 North Beaver Street, telephone.
- Rose Eisenhart, May 4, 2004, General Manager, B & C Fasteners, in person.
- Ed Mercier, May 6, 2004, plant manager, Keystone Color Works, in person.
- Tom Lannis, May 5 and 20, 2004, general manager, York Rail, in person and telephone.
- Jack Longstreet, May 18, 2004, Director, City of York Wastewater Treatment Plant, telephone.
- Tony Rathfon, May 19, 2004, Environmental Cleanup Program Manager, DEP Southcentral Region, telephone.

#### 14.5. Other Sources

- EPA Region III, *Industry Profile Fact Sheets*, <http://www.epa.gov/reg3hwmd/bfs/regional/industry>.
- Air Force Center for Environmental Excellence, May 2002, *Massachusetts Military Reservation Study Areas CY-1 and CY-3 Decision Document*, <http://www.mmr.org/Cleanup/sites/cy1/decision.htm>.