



PROPOSED PLAN OF REMEDIAL ACTION

Former Morheat Site
Wilmington, Delaware
DNREC Project No. DE-1613



March 2016

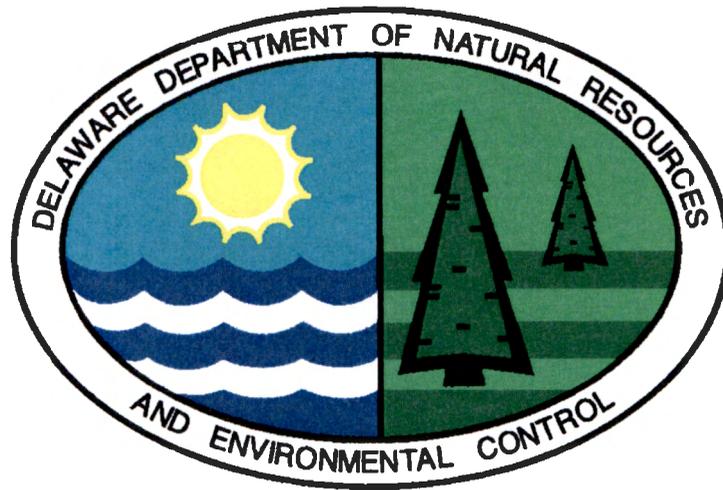
Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

CONTENTS

- Figures: 1, 2, & 3
- Glossary of Terms

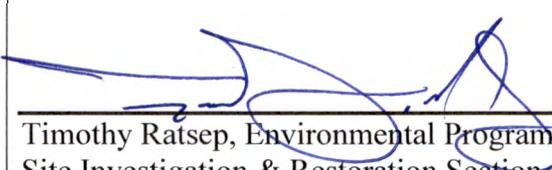
PROPOSED PLAN OF REMEDIAL ACTION

Former Morheat Site
Wilmington, Delaware
DNREC Project No. DE-1613



Approval:

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Timothy Ratsep, Environmental Program Administrator Site Investigation & Restoration Section

Date



What is the Proposed Plan of Remedial Action?

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Site for public comment. A legal notice is published in the newspaper for a 20-day comment period. DNREC considers and addresses all public comments received and publishes a Final Plan of Remedial Action (Final Plan) for the Site.

What is the Former Morheat Site?

The Former Morheat Coal and Fuel Company Site consists of eight parcels (New Castle County Tax Parcel No's. 26-058.30-010, -011, 26-057.40-013, -014, -015, -016, -030, and -031) totaling approximately 2.95 acres, located at 721-723 New Castle Avenue in Wilmington, New Castle County, Delaware (Figure 1). The Site is bordered on the north by railroad tracks, New Castle Avenue (Delaware Route 9) to the east, on the south by the former Townsend Street, which now is a part of the off ramp for southbound Delaware Route 13 (South Heald Street) which borders the Site on the west. The Site consists of two unoccupied commercial buildings, while the remainder of the Site is overgrown with vegetation. The Site has reportedly been vacant for 17 years.

What happened at the Former Morheat Site?

Historic uses of the property includes: bulk coal / oil storage and distribution facility from the mid-1930s until the 1960s; an automobile repair shop; a potential automobile salvage yard; and a hardware and paint store. According to the current owners, the Site has been vacant since 1998.

What is the environmental problem at the Former Morheat Site?

A Brownfield Investigation was performed to determine the nature and extent of contamination in August 2015. The BFI consisted of drilling of 15 Geoprobe™ soil borings and excavation of 9 test pits from which 21 surface soil and 24 subsurface soil samples were collected. Five borings were completed as monitoring wells for evaluation of shallow groundwater. A Geophysical Survey was conducted to investigate possible buried metallic objects, such as underground storage tanks (USTs). Site media samples were analyzed to assess the possible presence of contaminants in accordance with DNREC SIRS protocols. SIRS' laboratory conducted screening analyses of all 45 solid matrix samples for selected organic compounds and metals. A HSCA-approved subcontractor laboratory performed confirmatory analyses of over 20 percent of the solid samples and all five groundwater samples for EPA's Target Compound List of organic compounds and Target Analyte List metals; six soil samples and two groundwater samples were analyzed for PCB Homologs by EPA Method 680. The contaminants of potential concern (COPC) detected in the soil samples included five semivolatile polynuclear aromatic hydrocarbons (PAHs) (benz(a)anthracene, benzo(a)pyrene,

benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene), two metals (antimony and thallium), and total PCBs. Groundwater COPCs included the metals cobalt and manganese, two VOC compounds, and two pesticide compounds. Groundwater was determined to flow in a northeasterly direction towards the Christina River.

Future site users could potentially experience direct contact exposures (via inhalation, ingestion, or dermal absorption) to soil contaminants which could hypothetically expose them to risks or health hazards. Potential future risk levels were quantified for future site use scenarios using the RAIS risk calculator. Soil risks exceeded DNREC's allowable soil risk thresholds for a hypothetical future residential use scenario, but were acceptable for future commercial / industrial land use scenarios and future construction / excavation workers.

Although the site groundwater is restricted from future use as potable drinking water, potential risks from the hypothetical future site groundwater ingestion were quantified for resource management purposes. Tap Water ingestion risks were determined to be unacceptable under future residential and commercial indoor worker scenarios, largely due to the pesticide Dieldrin. VOCs in groundwater samples at COPC concentrations triggered an assessment of future risks along the hypothetical pathway of VOC vapor intrusion to indoor air of existing and/or new buildings. Acceptable levels of future hypothetical VOC intrusion risks were calculated by the Johnson & Ettinger model for indoor air vapor risk for the existing building or a new slab-on-grade building under both future residential and proposed commercial use.

What clean-up actions have been taken at the Former Morheat Site?

To date, there have been no cleanup actions taken at the Former Morheat Site.

What does the owner want to do at the Former Morheat Site?

The Brownfield Developer, 200 LLC, plans to utilize the Property for temporary outdoor storage of shipping containers. It is anticipated that 200, LLC, will likely demolish the existing buildings due to their deteriorated current condition, although no formal Site plan has been developed.

What additional clean-up actions are needed at the Former Morheat Site?

DNREC proposes the following remedial actions for the Site, which need to be completed before a Certificate of Completion of Remedy (COCR) can be issued.

1. A proposed Environmental Covenant must be submitted to DNREC for approval within 60 days of the issuance of the notice of the Final Plan of Remedial Action.
2. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (7 Del.C. Chapter 79, Subchapter II) must be recorded in the Office of the [County] Recorder of Deeds within 60 days of the issuance of the Final Plan of Remedial Action. The Environmental Covenant must include the following activity and/or use restrictions:

- [a.] Use Restriction. Use of the Property shall be restricted solely to those non-residential type uses permitted within Commercial, Manufacturing, or Industrial Districts;
 - [b.] Limitation of Groundwater Withdrawal. No groundwater wells shall be installed and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-SIRS and DNREC Division of Water;
 - [c.] Compliance with Contaminated Materials Management Plan. All soil disturbing work must be performed in accordance with the DNREC approved Contaminated Materials Management Plan.
3. A Contaminated Materials Management Plan (CMMP) must be submitted to DNREC within 60 days of the issuance of the Final Plan of Remedial Action. The CMMP will provide guidance to enable construction workers to safely handle any potential contaminated soil and groundwater at the Site.
 4. The CMMP will be implemented upon its approval by DNREC.
 5. A request for a Certification of Completion of Remedy (COCR) must be submitted to DNREC within 60 days of filing the Environmental Covenant.

What are the long term plans for the Site after the cleanup?

The Site use will be temporary container storage, restricted to non-residential (commercial/industrial) purposes by recording the environmental covenant. The CMMP will be completed and available for the Site.

How can I find additional information or comment on the Proposed Plan?

The complete file on the Site including the Brownfield Investigation and the various reports are available at the DNREC office, 391 Lukens Drive in New Castle, 19720. Most documents are also found on:

<http://www.nav.dnrec.delaware.gov/DEN3/>

The 20-day public comment period begins on March 20, 2016 and ends at close of business (4:30 pm) on April 8, 2016. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Kristen Thornton, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Map

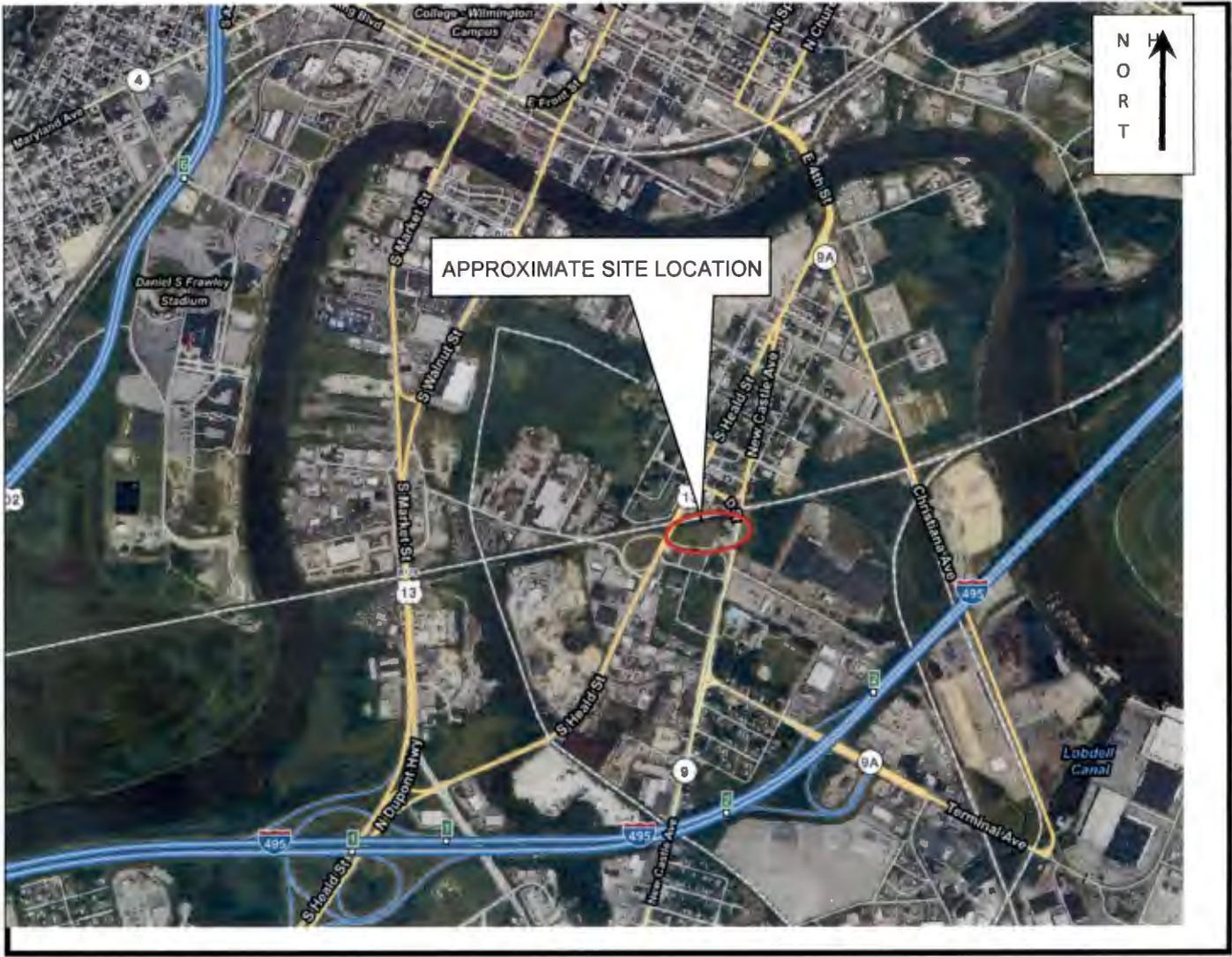
Figure 2: Vicinity Map

Figure 3: BFI Sample Locations

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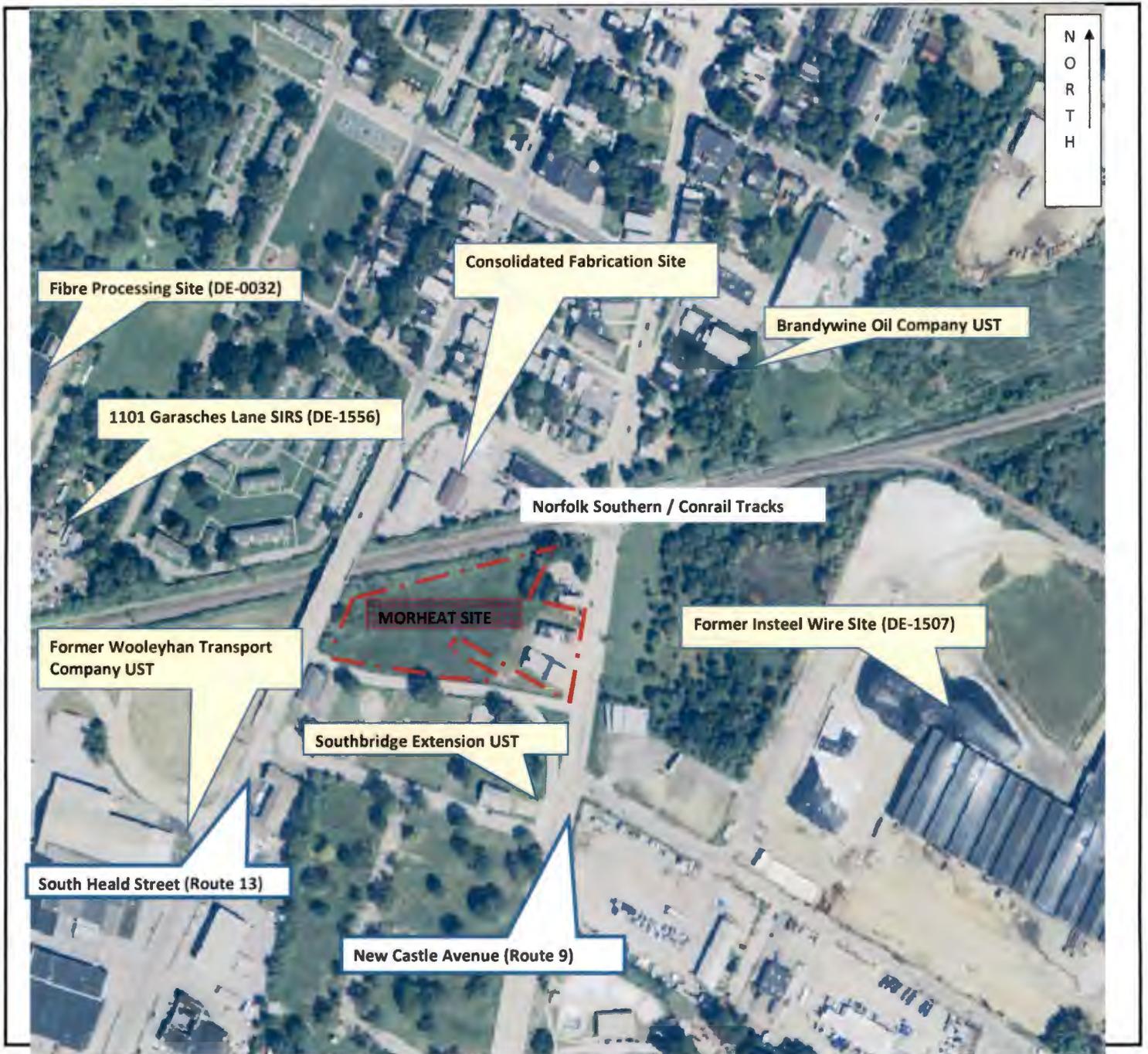
Glossary of Terms Used in this Proposed Plan

Brownfield Development Agreement (BDA)	This legal agreement is between a potential developer of a Delaware-certified Brownfields Site and the DNREC. The developer agrees to investigate and cleanup a Brownfields property under the oversight of the Department in exchange for liability protection.
Brownfield Investigation (BFI)	Thorough environmental study of a site which includes 1) sampling of site environmental media and/or wastes on the property and 2) conducting a preliminary risk assessment using the data collected to determine the risk posed to human health and the environment.
Certified Brownfield	A Brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program
Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Contaminated Materials Management Plan	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Groundwater Management Zone	A geographical area where DNREC restricts drilling for ground water because it is contaminated
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Risk	Likelihood or probability of injury, disease, or death.
Restricted Use	Commercial or Industrial setting
SIRS	Site Investigation Restoration Section of DNREC, which oversees cleanup of sites that were contaminated as a result of past use, from dry cleaners to chemical companies
US EPA	United States Environmental Protection Agency



NOTE:
THIS LOCATION SKETCH WAS ADOPTED FROM A MAPQUEST™ ONLINE MAP ,
OF WILMINGTON, DELAWARE (2015)

 <p>Ten Bears Environmental Assoc. Co. 1080 South Chapel Street, Suite 200 Newark, DE 19702 Phone: (302) 731-8633 Fax: (302) 731-8655</p>	<p>FIGURE 1 - SITE LOCATION SKETCH FORMER MORHEAT COAL AND FUEL COMPANY SITE 721-723 NEW CASTLE AVENUE WILMINGTON, NEW CASTLE COUNTY, DELAWARE</p>	
	<p>DATE: 7-22-15</p> <p>DRAWN BY: BKG</p> <p>CHECKED BY: EWR</p> <p>FILE NO: 15-1493.A.fig</p>	<p>JOB NUMBER: 15-1493.A</p> <p>SCALE: 0  600 ft</p> <p>FIGURE NO: 1</p> <p>SHEET 1 OF 1</p>



THIS LOCATION SKETCH WAS ADAPTED FROM AERIAL PHOTOGRAPHY OBTAINED FROM THE GOOGLE EARTH MAPPING PROGRAM, 2013.



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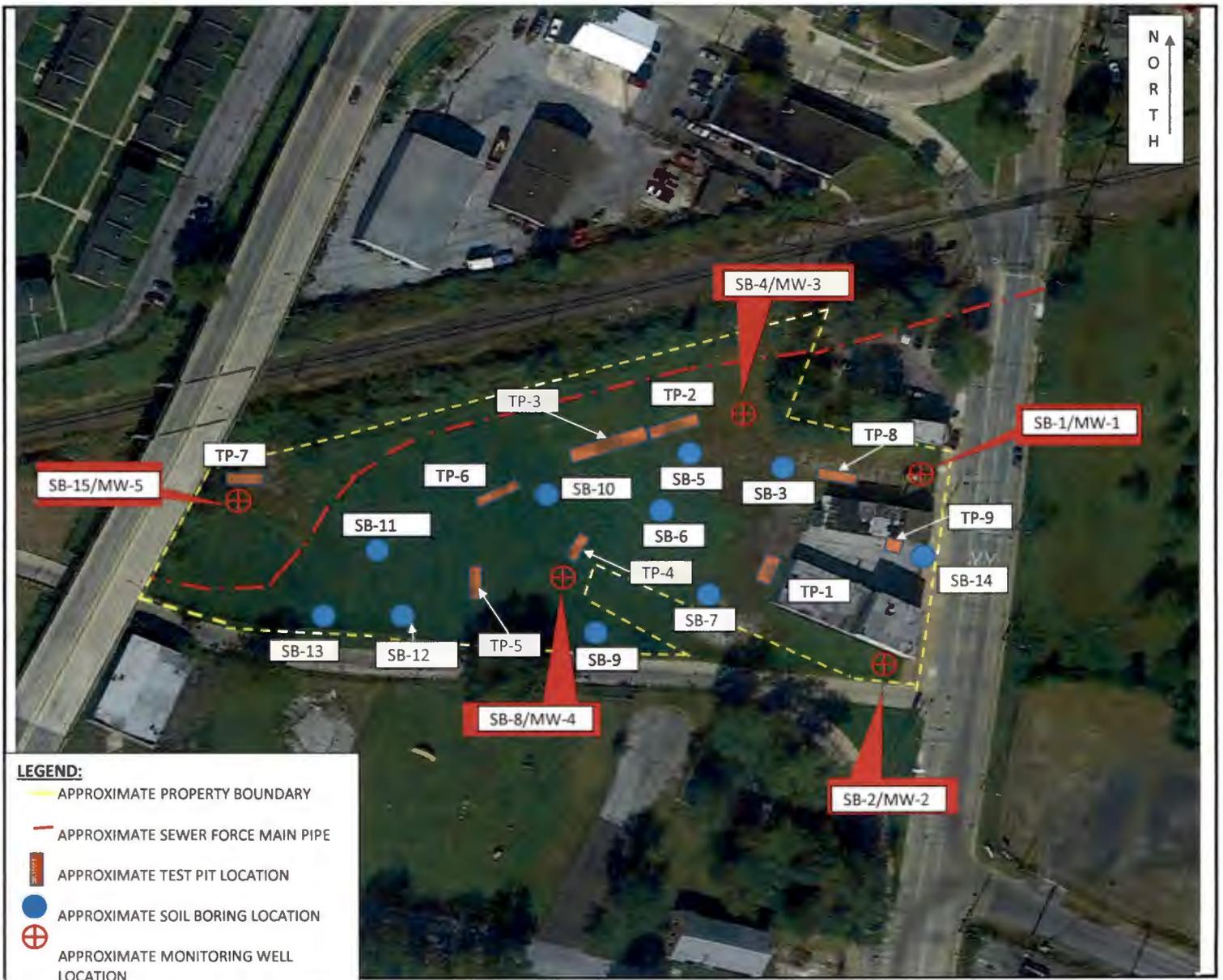
FIGURE 2 - VICINITY MAP

FORMER MORHEAT COAL & FUEL CO. SITE (DE-1613)

721-723 NEW CASTLE AVENUE

WILMINGTON, NEW CASTLE COUNTY, DELAWARE

DATE: 7/22/2015	JOB NUMBER: 15-1493.A
DRAWN BY: BKG	SCALE: 1 inch = approx 300 ft
CHECKED BY: EWR	FIGURE NO: 2
FILE NO: 15-1493.A_FIGS	SHEET 1 OF 1



THIS LOCATION SKETCH WAS A DAPTED FROM A 2011 AERIAL PHOTOGRAPH PROVIDED BY GOOGLE EARTH MAPPING.

 <p>Ten Bears Environmental Associates Co., 1080 South Chapel Street, Suite 200 Newark, DE 19702 Phone (302) 731-8633 Fax (302) 731-8655</p>	FIGURE 3 - BFI SAMPLE LOCATIONS FORMER MORHEAT COAL AND FUEL COMPANY SITE (DE-1613) 721-723 NEW CASTLE AVENUE WILMINGTON, NEW CASTLE COUNTY, DELAWARE	
	DATE: 7/22/2015 DRAWN BY: BKG CHECKED BY: EWR FILE NO: 15-1493.A FIGS	JOB NUMBER: 15-1493.A SCALE: 1" = approx. 120 ft FIGURE NO: 3 SHEET 1 OF 1