FINAL PLAN OF REMEDIAL ACTION

2440 RED LION ROAD

2440 Red Lion Road
Kirkwood, Delaware

October 26, 2012
DNREC Project No. DE-1449

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) intention to address environmental contamination at the 2440 Red Lion Road Site.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on October 3, 2012 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments from the public; therefore, the Proposed Plan is adopted as the Final Plan.

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Timothy T. Ratsep, Program Administrator
Site Investigation and Restoration Section

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PROPOSED PLAN OF REMEDIAL ACTION

2440 Red Lion Road Site
Kirkwood, Delaware
DNREC Project No. DE-1449

September 2012

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

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PROPOSED PLAN OF REMEDIAL ACTION

2440 Red Lion Road Site
Kirkwood, Delaware
DNREC Project No. DE-1449

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

Approved by:

Marjorie A. Crofts, Director
Division of Waste & Hazardous Substances

9.24.12

Date

What is a 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 before publishing a Final Plan of Remedial Action (Final Plan) for the Site.

What is the 2440 Red Lion Road Site ?

The 2440 Red Lion Road Site is approximately 0.47 acres in size, is identified as tax parcel 1201800014, and is located adjacent to the intersection of Howell School Road and Red Lion Road in Kirkwood, Delaware. (Figures 1 and 2) The Site, formerly a gasoline station and auto repair shop, was originally operated as a grain storage depot and farm supply business. The area previously occupied by the auto repair shop has been converted into a clothing retail store. A portable ice-cream stand, outdoor seating areas and playground equipment also exist on the property. A large portion of the Site is utilized for parking, and is covered with asphalt and crushed stone.

What happened at the 2440 Red Lion Road Site ?

Past operations at the Site have caused impact to soil and groundwater beneath the property. The contaminants of concern at the Site include petroleum compounds, chlorinated hydrocarbons, and arsenic.

What is the environmental problem at the 2440 Red Lion Road Site?

In addition to underground storage tank (UST) removal activities and associated soil/groundwater data collected between 2003 and 2007, a more comprehensive Brownfield Investigation of soil and groundwater was performed at the Site in 2010/2011. The results showed that shallow and deep soils contain arsenic at concentrations exceeding Delaware's default background concentrations. Benzene and naphthalene have also been detected in the groundwater beneath the Site at concentrations in excess of groundwater Uniform Risk Based Standards (URSs). Human Health Risk Assessment results indicated that the Site contaminants in soil pose an unacceptable risk for residential use of the property, but do not pose an unacceptable risk for commercial use of the property. Site contaminants in groundwater pose an unacceptable risk if the water is used for drinking purposes.

What clean-up actions have been taken at the 2440 Red Lion Road Site?

USTs have been removed from the Site, along with approximately 217 tons of petroleum impacted soil. These removals occurred in 2001 and 2007. Groundwater monitoring has also taken place as a result of releases from the UST systems operated at the Site.

What does the owner want to do at the 2440 Red Lion Road Site?

The owner would like to renovate the historic onsite building and redevelop the Site for commercial purposes such as shops and/or a convenience store.

What additional clean-up actions are needed at 2440 Red Lion Road Site?

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

1. Remediation of petroleum compounds in groundwater to a risk based level acceptable to DNREC;

2. Development of a DNREC approved Contaminated Materials Management Plan to allow construction workers to safely handle any potential contaminated soil at the Site.

3. Development and implementation of a DNREC-approved Long-Term Stewardship (LTS) Plan. Among other things, the LTS Plan will detail the groundwater monitoring network and schedule to be followed in order to monitor the groundwater remedial action.

4. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), will be recorded in the office of the Recorder of Deeds to:

    - Restrict the Site to non-residential use;
    - Prohibit excavation or disturbance of soil without prior written approval by DNREC;
    - Ensure compliance with the Long Term Stewardship Plan; and
    - Ensure compliance with the Contaminated Materials Management Plan (CMMP).

5. Properly abandon the former onsite water supply well in accordance with the "Delaware Regulations Governing the Construction and Use of Wells" (April 1997).

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

The institutional controls that will be placed on the property will specify the future land use and intrusive action restrictions described above. A DNREC approved Long-Term Stewardship Plan will document the requirements and will also include the CMMP.

DNREC plans to issue a Certificate of Completion of Remedy for the Site after the completion of clean-up requirements, and the implementation of the uniform environmental covenant on the property.

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

The complete file on the Site, including the Brownfield Investigation Report, is available at the DNREC office, 391 Lukens Drive in New Castle, 19720, or at the Bear Library located at 101 Governor's Place in Bear, Delaware. Most documents are also found on: http://www.nav.dnrec.delaware.gov/DEN3/

The 20-day public comment period begins on September 30, 2012 and ends at close of business (4:30 pm) on October 22, 2012. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to John G. Cargill, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Sketch
Figure 2: Site Feature Sketch

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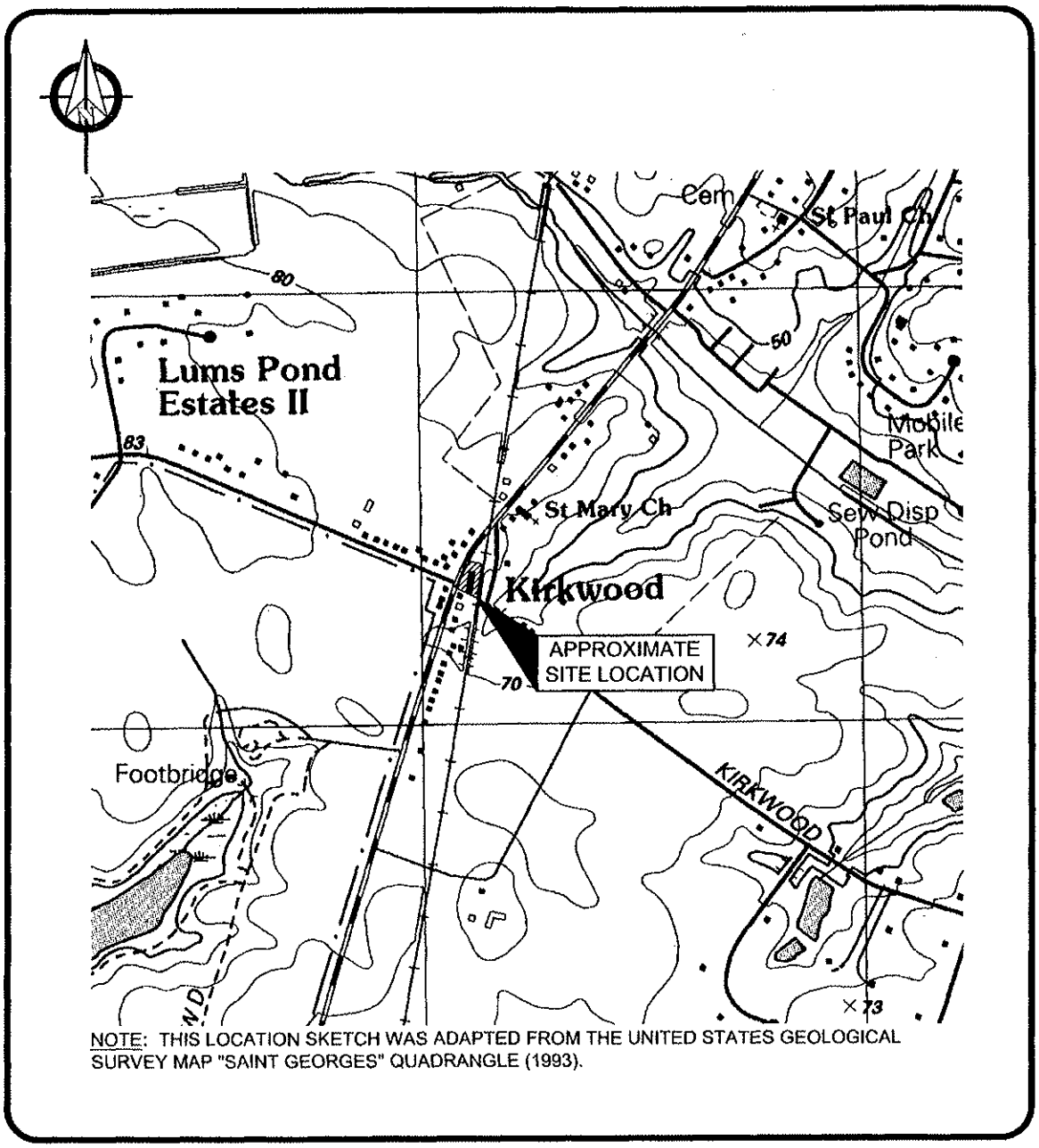
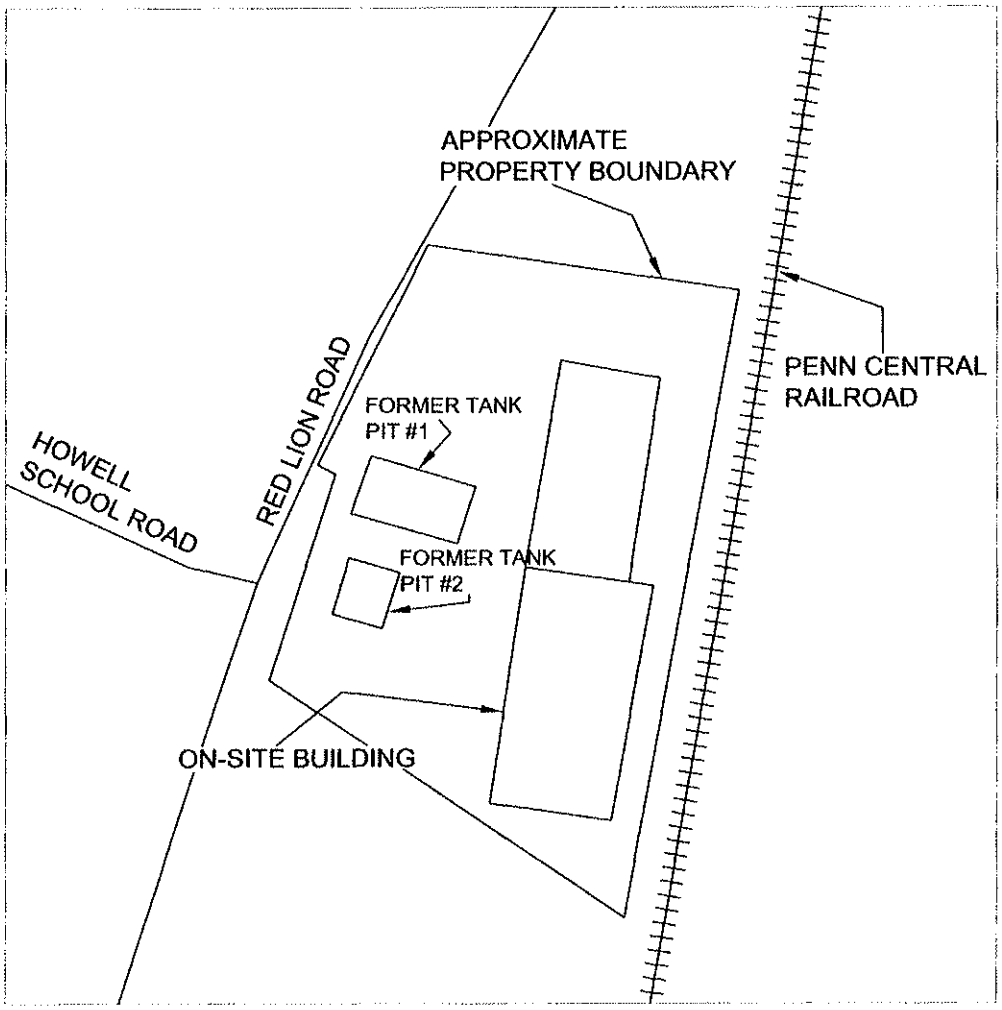


NOTE: THIS LOCATION SKETCH WAS ADAPTED FROM THE UNITED STATES GEOLOGICAL SURVEY MAP "SAINT GEORGES" QUADRANGLE (1993).

DATE: 18 MAY 2009	SITE LOCATION SKETCH	DESIGNED BY: MFP	DUFFIELD ASSOCIATES
SCALE: 1" = 1000'	2440 RED LION ROAD /	DRAWN BY: VNG	
PROJECT NO. 7693 EC	DE-1449	CHECKED BY: CW	
SHEET: FIGURE 1	BEAR~NEW CASTLE COUNTY~DELAWARE	FILE: A7693EC-01	

Figure 1



NOTE: THIS FIGURE WAS ADAPTED FROM THE NEW CASTLE COUNTY E-PARCEL MAPPING SYSTEM. FORMER TANK PIT LOCATIONS WERE APPROXIMATED BASED ON A FIGURE BY THE STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DATED SEPTEMBER 4, 2007.

DATE: 11 MAY 2009	SITE FEATURE SKETCH	DESIGNED BY: MFP	DUFFIELD ASSOCIATES
SCALE: 1" = 50'	**2440 RED LION ROAD / DE-1449**	DRAWN BY: MFP	
PROJECT NO. 7693.EC		CHECKED BY: CAJ	
SHEET: FIGURE 2	BEAR~NEW CASTLE COUNTY~DELAWARE	FILE: A7693EC-02	

Figure 2

Glossary of Terms Used in this Proposed Plan

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.
Contaminant of Concern (COC)	Potentially harmful substances at concentrations above acceptable levels.
Contaminated Materials Management Plan (CMMP)	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
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.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
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
Uniform Risk-Based Remediation Standards (URS)	A set of concentration criteria for various contaminants potentially present in site media that are developed for protection of human health and the environment