

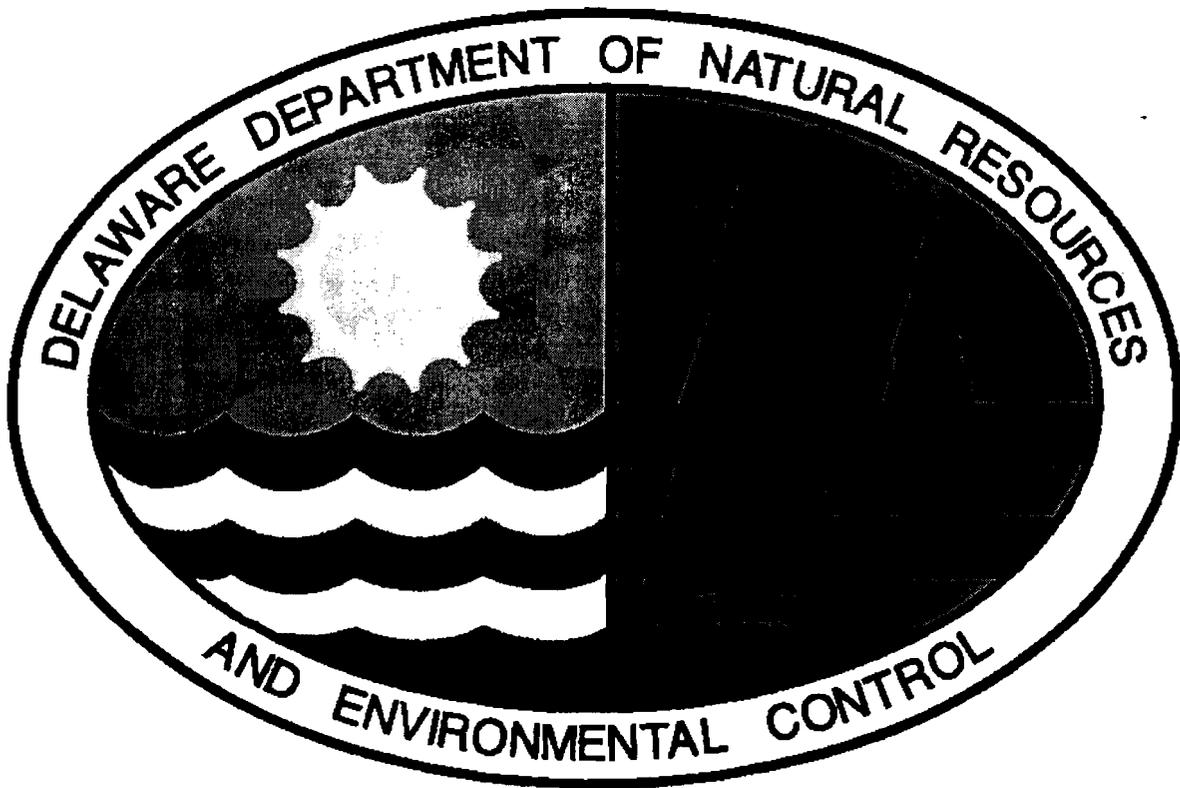
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PROPOSED PLAN OF REMEDIAL ACTION

1200 WALNUT STREET SITE
Wilmington, Delaware

DNREC Project No. DE 1220



October 2001

Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation and Restoration Branch

391 Lukens Drive
New Castle, DE 19720

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I INTRODUCTION

The 1200 Walnut Street Site ("Site") is located on the northeast corner of East 12th and Walnut Streets in Wilmington, Delaware, New Castle County (Figure 1). In order to determine the potential release of hazardous substances at this Site, MBNA America Bank ("MBNA") contracted WIK Associates Inc. ("WIK") to perform a Limited Soil Investigation and an Additional Site Characterization of the Site.

The purpose of the Limited Soil Investigation was to evaluate the potential that operations at the former bakery, or from nearby sites, may have impacted site soils to an extent that would represent risk to human health risk and the environment. Based on the preliminary findings, an Additional Site Characterization was performed as requested by DNREC-SIRB to complement the chemical characterization of the deeper subsurface soils.

An interim remedial action was performed as part of the construction activities developed by MBNA at this Site. As a result of the remedial action, all soil shallower than four feet was removed and replaced by clean soil.

This document is the Department's Proposed Plan of Remedial Action ("Proposed Plan") for the Site. It is based on the results of the previous investigations performed at the Site. This Proposed Plan is issued under the provisions of the Delaware Hazardous Substance Cleanup Act, 7 Del. C. Chapter 91 ("HSCA") and the Regulations Governing Hazardous Substance Cleanup ("Regulations"). It presents the Department's risk assessment of the potential health and environmental risks posed by the Site and the interim remedial action performed by the potential responsible party.

As described in Section 12 of the Regulations, DNREC-SIRB will provide notice to the public and an opportunity for the public to comment on the Proposed Plan. At the comment period's conclusion, DNREC-SIRB will review and consider all of the comments received and then will issue a Final Plan of Remedial Action ("Final Plan"). The final plan shall designate the selected remedy, if required, for the Site. The Proposed Plan, all previous investigations of the Site, the risk assessment, the interim action, the comments received from the public, DNREC-SIRB's responses to those comments, and the Final Plan will constitute the Remedial Decision Record for the Site.

Section II presents a summary of the Site description and history. Section III provides a description of the investigation results. Section IV presents a discussion of the Remedial Action Objectives. Section V presents the Interim Remedial Action. Section VI presents the Proposed Plan of Remedial Action. Section VII discusses public participation requirements.

II SITE DESCRIPTION AND HISTORY

The Site occupies approximately three thousand square feet (Tax Parcel # 26-036.10-010) at 1200 Walnut Street, on the northeast corner of East 12th and Walnut Streets in Wilmington, Delaware, New Castle County (Figure 1).

The Site is located in a commercial/residential area. The Site has a history of use as a bakery. The Site is bounded to the north and west by Walnut Street, to the east by an open space, and to the south by E. 12th Street.

The Site is currently owned by MBNA America Bank ("MBNA"). The majority of the Site has been developed by MBNA. The developed portion of the Site includes a residential building, a parking lot, and a concrete sidewalk around the building's foundation.

III INVESTIGATION RESULTS

WIK conducted the first investigation at this Site on August 2000, when four test pits were excavated across the property for Site characterization. The purpose of the investigation was to evaluate the potential that operations at the former bakery that was located on the Site, or from nearby sites, may have impacted Site soils to an extent that would influence the future construction activities at the Site. Four samples were taken, at depths between two and five feet, and analyzed for metals; additionally two other samples were taken to be analyzed for asbestos. The test pit locations (TP01, TP02, TP03 and TP04) are shown in Figure 2. Construction debris was encountered in the test pits, probably from the demolition of the former building that was present on the Site.

Analytical results indicated the presence of arsenic in soil at concentrations above DNREC-SIRB's Uniform Risk Based Standards ("URS") unrestricted use criteria in all four-test pit locations (arsenic concentrations were between 1.3 and 3.17 mg/kg). Arsenic levels were below the URS restricted use criteria and within the background concentration levels as outlined in the Remediation Standard Guidance under the Delaware Hazardous Substance Cleanup Act ("HSCA"). Lead was also detected above the URS unrestricted use criteria in the samples TP03 (502 mg/kg) and TP04 (508 mg/kg), but concentrations were below the URS restricted use criteria. The TP03 and TP04 test pits contained a large amount of construction debris (between 60% and 70%) and WIK reported that lead concentrations might be a result of lead paint from the former structure on the Site. Asbestos was not detected in the two samples taken for asbestos analysis.

Based on the preliminary findings, additional sampling was conducted in October 2000 by WIK, to characterize the deeper subsurface soils at the Site, as requested by the DNREC-SIRB. The sample locations are shown in the Figure 3. The five soil samples were collected from depths between 4-5 feet and 7.5-8.5 feet, and analyzed for metals and semi-volatile compounds ("SVOC's"), because these were considered chemicals of concern based on the previous investigation.

Analysis of the additional soil samples indicated the presence of arsenic in all five hand-auger sampling locations at concentrations between 1.8 mg/kg and 3.7 mg/kg. This concentration exceeds the DNREC-SIRB's URS unrestricted use criteria, but they are below the restricted use criteria and within the background concentration levels as outlined in the Remediation Standard Guidance under the HSCA. Lead did not exceed the URS unrestricted use criteria in any of the five samples taken. No SVOC's were detected in the sample HA01. The following SVOC's were detected in several of the five (5) samples above the URS unrestricted use criteria: Benzo(a)anthracene was detected in 2 out of 5; Benzo(a)pyrene, 3 out of 5; Benzo(b)fluoranthene, 1 out of 5; Dibenzo(a,h)anthracene, 2 out of 5; and Indeno(1,2,3-cd)pyrene, 2 out of 5. Benzo(a)pyrene in one sample and Benzo(b)fluoranthene in one sample, exceeded the URS restricted use criteria.

To evaluate the risk of these contaminants to future construction workers, a risk evaluation was performed by DNREC-SIRB using the DNREC-SIRB Site-Specific Standard Calculator (1999 Version). The risk evaluation was done using the average concentrations due to a small database. All Site average concentrations are within the DNREC-SIRB's URS standard levels for restricted use. The total risk to future construction workers was calculated at 3.17E-06, below the 1E-05 HSCA current remediation standard. Therefore, no unacceptable risk to future construction workers is expected to occur.

Groundwater samples were not collected because Site soils did not have any unacceptable risk. DNREC-SIRB may require additional groundwater sampling if Site conditions warrant further investigation.

IV REMEDIAL ACTION OBJECTIVES

According to Section 8.4(1) of the Regulations, site-specific Remedial Action Objectives ("RAOs") must be established for all Plans of Remedial Action. The Regulations provide that DNREC-SIRB set objectives for land use, resource use, and cleanup levels that are protective of human health and the environment.

Qualitative objectives describe, in general terms, what the ultimate result of the remedial action, if necessary, should be. The following qualitative objectives are determined to be appropriate for the Site:

- Prevent residential exposure to impacted media,
- Minimize potential exposure to Site substances of concern for construction workers at the Site,
- Prevent environmental impacts due to impacted media, and
- Continue the use of public water for all purposes to the surrounding community.

These objectives are consistent with the current use of the Site as a residential use in an urban setting, New Castle County zoning policies, state regulations governing water supply, and

worker health and safety.

Quantitative objectives define specific levels of remedial action to achieve protection of human health and the environment. Based on the qualitative objectives, the quantitative objectives are:

- Prevent human exposure to soil contaminants that would result in a carcinogenic risk exceeding 1×10^{-5} or a hazard index of 1.0.
- Groundwater at the Site should not be used for potable water sources.

V. INTERIM REMEDIAL ACTION

As part of the construction activities performed by MBNA at this Site, all soil, shallower than four feet was removed and replaced by new soil. Subsurface soil in the immediate area of the foundation was removed and replaced with clean fill to a depth of 6 to 8 feet, and a new concrete sidewalk has been installed around the foundation. Any future utility repairs or penetrations from either 12th or Walnut Streets within this fill do not represent a risk for human exposure. Behind the building that now exists on the Site, the new fill extends to a depth of four feet, is underlain by a construction fabric. No utilities will be placed in that area. Four feet is below the depth of any future landscaping activities that would be developed at the Site. Part of the backyard is covered by a wheelchair ramp and deck. Based on the interim actions performed at this Site, the Department considers that there is no pathway for future exposure to subsurface soils, provided that the building and soil cap, covering the area behind the building remain in place

VI PROPOSED PLAN OF REMEDIAL ACTION

As stated in Section III of this Proposed Plan, the soil at the Site contains elevated levels of metals and SVOC's. The Site is slated for development as a residential lot by MBNA, that consist in the construction of a residential building. Because a remedial action occurred on this Site, the Department proposes the following Plan be implemented at the Site:

- No further action is required at the Site, considering that removal of all of the impacted soil shallower than four feet has taken place as part of the construction activities developed by the responsible party.
- Placement of a Groundwater management Zone ("GMZ") and deed restriction at the Site to prevent future use of the groundwater beneath the Site without prior approval of DNREC-SIRB and the DNREC Division of Water Resources.

GMZ should not be protected!

VII PUBLIC PARTICIPATION

The Department actively solicits public comments or suggestions on the Proposed Plan of Remedial Action and welcomes opportunities to answer questions. Please, direct written comments to:

DNREC
Site Investigation and Restoration Branch

391 Lukens Drive
New Castle, Delaware 19720-2774
Attn: Wilmer Reyes

The public comment period for this Proposed Plan begins on Monday, November 5, 2001 and ends at the close of business (4:30 p.m.) Monday, November 30, 2001. If so requested, a public hearing will be held on the Proposed Plan. The meeting time and place will be announced if said hearing is requested.

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Figure 1: Location of 1200 North Walnut Street, Wilmington, Delaware

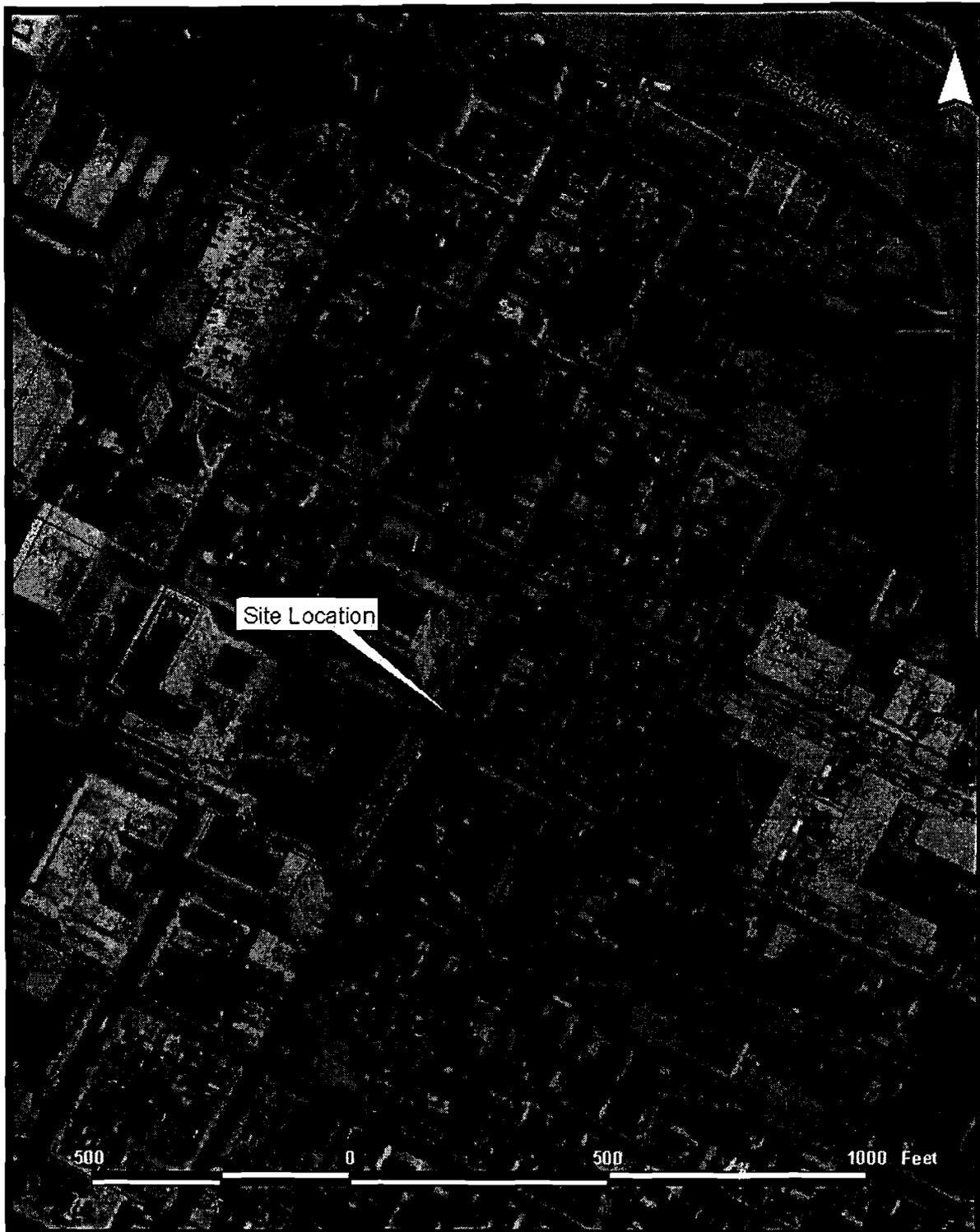


Figure 2: SAMPLE LOCATIONS – FIRST MONITORING EVENT

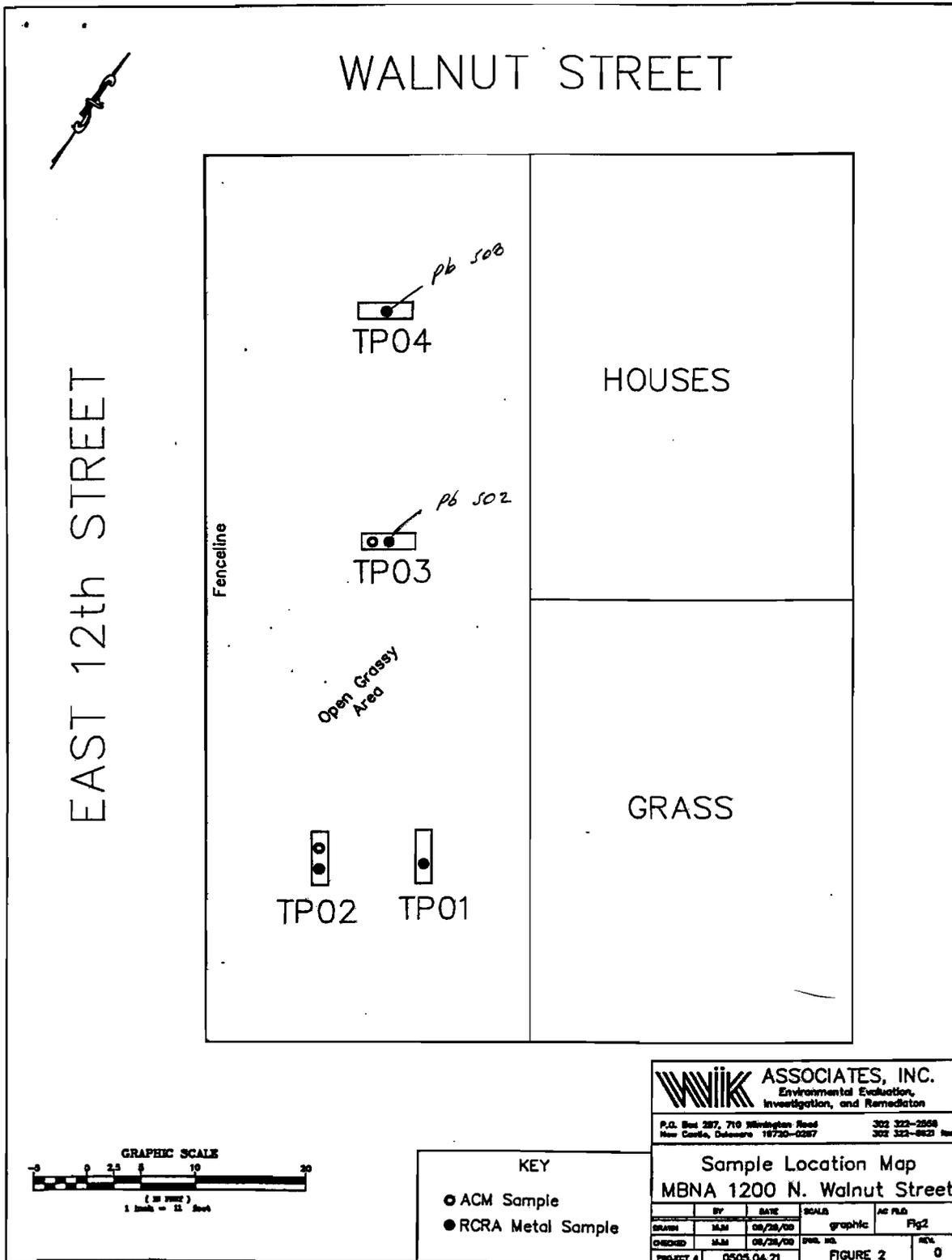


Figure 3: SAMPLE LOCATIONS – ADDITIONAL SAMPLING

