

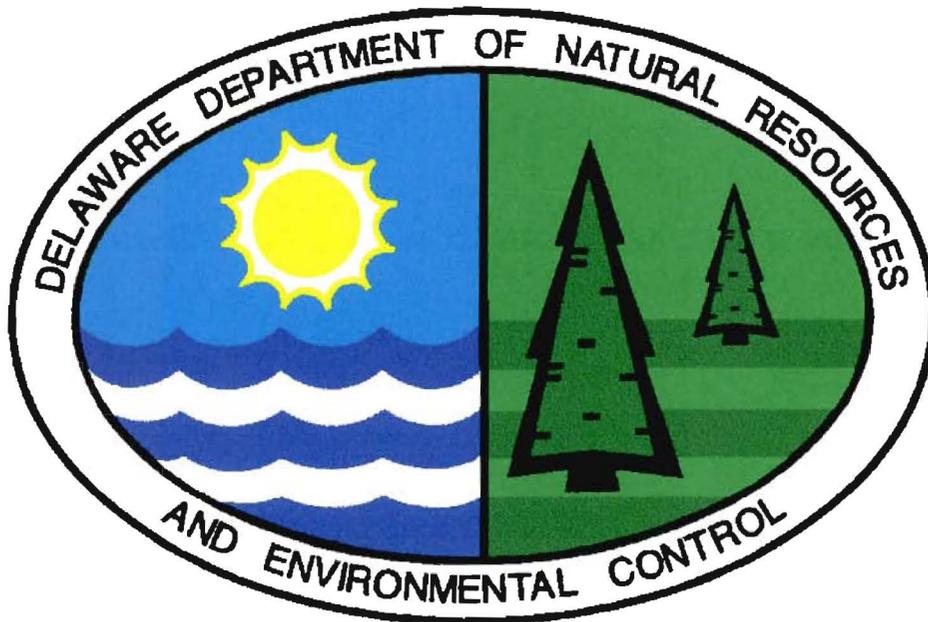
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Proposed Plan of Remedial Action

**Del Chapel Place – Operable Unit I
Newark, Delaware**

DNREC Project No. DE-1121



April, 1999

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

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1 INTRODUCTION

The Del Chapel Place property is located on the west side of south Chapel Street, south of Delaware Avenue in Newark, Delaware. The property is a partially paved, vacant lot (approximately 2.4 acres) that was used as a parking area for the industrial facility formerly occupied by the Budd Company and previously Continental Fiber.

The Site, referred to in previous documents as “the vacant lot” and “OU-1”, is the smallest of three tax parcels comprising the entire industrial facility. Historical activities associated with the industrial facility occurred on the two tax parcels now referred to as Del Chapel Place OU-2 and OU-3. The parcel (OU-1), previously owned by Del Chapel Associates, was sold to Continental Court, LLC on April 6, 1998.

On April 26, 1998, Continental Court, LLC entered into a Voluntary Cleanup Program (VCP) Agreement with the Department of Natural Resources and Environmental Control Site Investigation & Restoration Branch (“DNREC-SIRB”). The intent of this Agreement was to allow the owners to conduct a Remedial Investigation and determine whether a cleanup at the site was necessary.

This document is the DNREC-SIRB’s Proposed Plan of Remedial Action for the site. It is based on the results of previous investigations performed at the site. This Proposed Plan is issued under the provisions of the Delaware Hazardous Substance Cleanup Act (“HSCA”) and the Regulations Governing Hazardous Substance Cleanup (the “Regulations”). It presents the Department’s assessment of the potential health and environmental risk posed by the site.

Section 2 presents a summary of the site description, and previous investigations of the site. Section 3 provides a description of the remedial investigation results. Section 4 presents a discussion of the remedial action objectives. Section 5 presents an analysis of the proposed remedial action, and rationale for performing no further action. Section 6 discusses public participation requirements.

The DNREC-SIRB will provide public notice and opportunity to comment on the Proposed Plan in accordance with Section 12 of the Regulations. At the conclusion of the comment period, the DNREC-SIRB, after review and consideration of the comments received, shall issue a Final Plan of Remedial Action designating the remedial action. The Proposed Plan, the comments received from the public, responses to the comments, and the Final Plan will constitute the “Remedial Decision Record.”

2 SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS

The Site is located between Haines Street and South Chapel Street, south of Delaware Avenue, in Newark, Delaware. Land use north, west, and south of the site is mostly residential with mixed commercial properties. Land use directly east is currently zoned industrial. The site area is currently fenced with open access from South Chapel Street. Local residents and University of Delaware students use portions of the lot occasionally for parking.

The DNREC-SIRB performed a Brownfield Preliminary Assessment II (BPA II) of the Site (OU-1) and the adjacent industrial facility (OU-2 and OU-3) in 1997.

The purpose of the BPA II was to assess the potential threat to human health and the environment posed by site conditions and to determine if further remedial action was warranted. Part of the scope of work included a comprehensive target survey and sampling of the environmental media. The BPA II Report for Del Chapel Place (DE-163) describes and evaluates the results of the sampling that was conducted on each of the three tax parcels comprising the entire facility. The media sampled includes groundwater, shallow and deep soils, surface water, and stream sediments.

The vacant lot (OU-1) portion of the facility was sampled for soil and groundwater contamination. One groundwater monitoring well (MW-1) was installed at the southeast corner of the parcel and four test pit locations were utilized for soil samples. Analytical results indicated that no contaminants of concern were detected in groundwater samples collected from the vacant lot.

Soil samples from each test pit were taken at shallow depth, 0-2 feet below ground surface (bgs), and at the 4-6 foot bgs depth. All soil samples were field screened using the DNREC-SIRB mobile laboratory.

The field screening results for the soil sampling did not reveal any significant contamination with the exception of sample TP-4S. Soil sample TP-4S was submitted to the DNREC Division of Water Resources Laboratory for confirmational analysis.

The results from the laboratory testing indicated the presence of gasoline and acetone at concentrations exceeding background levels. The laboratory data validation indicated that TP-4S contains high levels of petroleum hydrocarbons exceeding 1000 parts per million (ppm) and gasoline range organics exceeding 100 ppm. Sample TP-4S represents a shallow soil sample at the center of the lot.

Based upon the results of the laboratory testing of environmental samples at the vacant lot, the DNREC-SIRB recommended that additional testing be conducted to evaluate the extent of petroleum contamination on this parcel.

Subsequently, Continental Court, LLC entered into a VCP Agreement with the DNREC-SIRB. In accordance with the HSCA Regulations, a qualified consultant submitted a work plan for a subsurface exploration of the property. The scope of work was to evaluate the extent of petroleum contamination and the potential presence of environmental concerns in other portions of the property.

On February 26, 1999 the approved RI work plan was executed with DNREC-SIRB oversight. A series of 24 soil borings were completed at selected locations. Soil samples were field screened for the presence of petroleum-related compounds with the use of a photoionization detector (PID) which indicates the potential presence of organic vapors.

Four soil samples were submitted to an HSCA-approved laboratory to be analyzed for petroleum hydrocarbons. The analytical results indicated no chemicals of concern were present.

To further evaluate the environmental condition of the property, the DNREC-SIRB recommended that additional exploration be performed to assess the potential impact of off-site sources. Five test pits were excavated along the northerly border of the property to depths ranging from approximately 10 to 13 feet below surface grade (DTP-1 through DTP5).

Test pit excavations were also field screened for volatile organic compounds with the use of a PID. The field instruments and visual observations did not indicate the presence of petroleum compounds.

Based on the subsurface exploration activities of the BPA II and initial investigation phase of the RI, it appears that the petroleum-containing soils encountered by the DNREC-SIRB in TP-4S were limited both laterally and vertically. The initial soil boring locations, proposed in the RI work plan, were selected to evaluate this identified petroleum contamination. Since no indications of environmental constituents of concern were encountered in these borings, the exploration was expanded to other areas of the site. Field screening and laboratory analysis results did not suggest the presence of petroleum hydrocarbons in these expanded soil boring locations.

A final RI Report titled Subsurface Exploration Report, Del Chapel Place OU-1, dated March 25, 1999 was submitted for DNREC-SIRB review. Upon review, preliminary recommendations were proposed by the DNREC-SIRB to further delineate the lateral and vertical extent of petroleum compounds encountered within the test pit excavation area, TP-4. Based upon the BPA II Report, petroleum compounds were present in the shallow soils. To further delineate this area, test pit excavations and field screening instruments (PID) were utilized in locating the area of petroleum contamination.

Visual observation and PID field screening identified a thin layer of petroleum-stained soil. The stained soil, approximately two inches thick, is within a shallow soil profile located six inches below the weathered asphalt portion of the lot. Four soil samples were collected for analysis by the DNREC mobile lab. Two of the four soil samples collected from the approximate location of TP-4S identified the presence of petroleum stained soil. Two soil samples from test pit

excavations around the stained soil area were also collected for analysis. These samples indicated that contamination was limited to a thin layer of stained soil extending within an area less than ten square feet. The DNREC-SIRB mobile laboratory analyzed the stained soil and indicated an approximate concentration of Total Petroleum Hydrocarbons (C9-C28) at 5000 ppm.

Information collected during the three phases of the Remedial Investigation was confirmed by laboratory analysis for the chemicals of concern. The chemicals identified by the DNREC and reported in the BPA II Report were specifically targeted for analysis in the Remedial Investigation. The RI analytical results were compared to the DNREC Uniform Risk-Based Standards (URS), Non-Critical Water Resource area, Unrestricted Use, as referenced in the DNREC's "Remediation Standards Guidance Under the Hazardous Substance Cleanup Act" dated February 1998.

3 INVESTIGATION RESULTS

Collectively, information provided by the DNREC-SIRB BPA II Report and the subsequent RI Report titled "Subsurface Exploration Report" is evaluated for assessment of the site remedial action objectives. Results of the comprehensive environmental media sampling presented in the BPA II Report indicated only one sample (TP-4S) exceeded the URS for unrestricted land use. The subsequent evaluation of the extent of petroleum contamination at TP-4S, based on 24 soil borings and five test pits, revealed no detectable levels at the selected locations. As a follow-up, the DNREC-SIRB recommended additional test pit excavations to locate the petroleum contamination at TP-4S. The test pits were screened visually and with a PID. The PID indicated the presence of petroleum in two test pits within a two-inch layer of stained soil, six inches below the surface. Test pits delineated the area of contamination to less than ten square feet. Four samples were collected for verification of the field screening. The results confirm that petroleum contamination is localized and not continuous within the test pit soil profile.

Interim Action removal was conducted with DNREC-SIRB's approval. The delineated area of contamination was removed and properly disposed.

4 REMEDIAL ACTION OBJECTIVES

According to HSCA Regulation 8.4(1), Remedial Action objectives must be established for all Plans of Remedial Action. Remedial Action is evaluated based on the following considerations:

- Current and proposed land use,
- Applicable local, state, and federal laws and regulations, and
- Facility-specific risk assessment.

The property is currently zoned industrial and historically used as a parking lot. Anticipated future use of this parcel is residential.

The qualitative remedial action objectives are to mitigate:

- Potential risks due to direct human contact (dermal) with soils containing elevated concentration of petroleum hydrocarbons,
- Potential risk for inadvertent ingestion of site soils containing elevated concentrations of petroleum hydrocarbons, and
- Risk to the environment.

The quantitative remedial action objectives are to mitigate risks due to soils containing concentrations of petroleum hydrocarbons exceeding the DNREC Uniform Risk-Based Standards, Non-Critical Water Resource Area, Unrestricted Use as referenced in the Remediation Standards Guidance under the Delaware Hazardous Substance Cleanup Act. Standards for petroleum hydrocarbons with gasoline range and diesel range organics in surface soils are:

C5 through C8 aliphatic hydrocarbons	100 mg/Kg
C9 through C12 aliphatic hydrocarbons	1,000 mg/Kg
C9 through C18 aliphatic hydrocarbons	1,000 mg/Kg
C19 through C36 aliphatic hydrocarbons	2,500 mg/Kg
C9 through C10 aromatic hydrocarbons	100 mg/Kg
C11 through C22 aromatic hydrocarbons	800 mg/Kg

The small volume of petroleum stained soil exceeds the DNREC URS with an approximate concentration of 5000 ppm Total Petroleum Hydrocarbons (TPH). The volume of soil is estimated to be less than ten square feet in area by two inches thick.

Removal of the petroleum stained soil was conducted to eliminate any potential risks described in the established qualitative remedial action objectives. As a result, the current site conditions also meet the quantitative remedial action objectives as referenced in the URS for unrestricted land use.

5 PROPOSED REMEDIAL ACTION PLAN

Based on the information and results of the investigation performed at the site (Del Chapel Place OU-1) located on South Chapel Street, Newark, Delaware, the DNREC-SIRB recommends no further action be required.

6 PUBLIC PARTICIPATION

The Department of Natural Resources and Environmental Control solicits public comments or suggestions on the Proposed Plan and welcomes opportunities to answer questions. Please direct written comments to:

DNREC Site Investigation and Restoration Branch
Attn: Zsolt E. Haverland
391 Lukens Drive
New Castle, DE 19720

The comment period begins Sunday, April 11, 1999 and ends at 4:30 p.m. Friday, April 30, 1999. Comments and/or requests for a public hearing may be submitted, in writing, to Zsolt E. Haverland by the close of business (4:30 p.m.) on Friday, April 30, 1999 at the above address.

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