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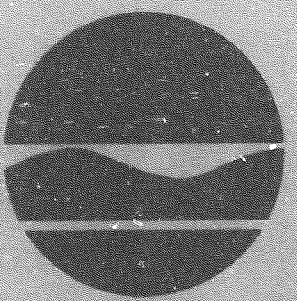
ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

Preliminary Site Assessment Report

Cherry Lane Lithography Site No. 130057
Plainview/Oyster Bay (T) Nassau County

DATE: March 26, 1993



Prepared for:

New York State
Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233-7010
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Prepared by:

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1.0 INTRODUCTION

The Cherry Lane Lithographing Corporation (CLLC) site was identified by the Nassau County Department of Health as a potential hazardous waste disposal site. The site was recommended for a Preliminary Site Assessment (PSA) and included on a list of 15 sites which were identified as needing PSA's. For this group of PSA's, the work plans would be prepared by DEC staff and once complete, the investigations would be tasked to a standby consultant.

In order to prepare the work plan, several parties were contacted and a site visit was performed. Based on conversations with the owner of the site, his attorney, his consultant, the Nassau County Department of Health (NCDH) and DEC Region 1 staff, information was obtained regarding the site, including a remediation which was completed for the on-site cesspools. The remediation involved the excavation of cesspool 1 and approximately 850 tons of contaminated soil surrounding the cesspool. Due to physical constraints on the practical limits of excavation, some residual contaminated soil remains at the base of the excavated area. Additional soil sampling was performed to evaluate the nature and extent of the residual contamination. Information regarding the remediation was reviewed by DEC and NCDH and compared cleanup guidelines. It was determined that additional investigation on the part of the Division of Hazardous Waste Remediation was unnecessary, that the residual contamination would not likely present a significant threat to the aquifer, and that the remediation was satisfactory for this location. It is recommended that a monitoring well be installed and a monitoring program established.

This PSA has been prepared by the DEC to summarize the reported activities at the site and DEC's evaluation of the remediation. The information presented is derived from information provided by the owner's consultant and attorney, by the NCDH and by DEC Region 1.

2.0 SITE DESCRIPTION

The Cherry Lane Lithography site is located at 30 Commercial Court in Plainview, Nassau County, New York near the intersection of Terminal Drive and Ames Court. (Figures 1 & 2) The site occupies approximately 1.3 acres and contains a one story brick building with a one story masonry addition. The entire parcel is paved. Four leaching pools had been used at the site for the disposal of waste waters for approximately 25 years. Pool 1 was used as the primary discharge pool. Pools 2, 3 and 4 were used for overflow. The building has since been hooked into the Nassau County sanitary sewer system.

3.0 SITE HISTORY

The site history was provided by the site owner, William Citterbart, III, as reported in Geraghty & Miller's February 1992 Remedial Investigation Report.

Significant levels of contamination were noted in one of four leaching pools when the on-site septic system was being closed in 1990. From 1962 to 1983, rinse water was generated by cleaning built up ink and paper lint off each of the 5 presses with sponges. Sponges were rinsed in 2 gallon buckets of water which were dumped into sinks at end of each shift. The majority of printing used black ink which contained a pigment identified as carbon black. The chemicals discharged consisted primarily of lithographic plate rinse water, photopolymers and may have included dyes and aliphatic hydrocarbons, according to Mr. Citterbart. It has been debated whether this process would constitute hazardous waste disposal. The information regarding the rinsing process was forwarded to the Division of Hazardous Substances Regulation (DHSR), Compliance and Enforcement Unit for a hazardous waste determination. The conclusion made by DHSR was that "...CLLC's rinsewater is F00x hazardous waste."

4.0 SITE INVESTIGATION AND REMEDIATION

The following information is derived from the Remedial Investigation Work Plan and Remedial Investigation Report, both prepared by Geraghty and Miller.

In the process of closing the on-site septic system, and at the request of the Nassau County Department of Health (NCDH), KBF Pollution Management, Inc. of North Lindenhurst, New York collected soil samples from the bottom of all four pools on June 26, 1990. The samples were analyzed for volatile organic compounds (VOC's). The following compounds were detected: benzene, chloroform, 1,1-dichloroethane, styrene, toluene, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, ethylbenzene, xylenes and methylene chloride. The four leaching pools were pumped out and cleaned in January 1991. Liquids were disposed as non-hazardous at the Nassau County Bay Park scavenger disposal facility. Solids removed from the pools were identified as hazardous and transported to Chemical Management, Inc. for disposal by RGM Liquid Waste Removal, Deer Park, New York. The bottom of pools 1, 3, and 4 were resampled by KBF after the pump out. Based on the results, the NCDH allowed pools 2, 3, and 4 to be backfilled with clean fill. Because the grab sample from pool 1 still exhibited contamination after the cleaning procedure, the NCDH requested that additional soil quality investigation be conducted in the area of pool 1.

KBF conducted a soil boring program on February 20, 1991, and determined that contamination was present in soil at least two feet beyond the walls of the leaching pool. Based on these results, NCDH requested that the pool and surrounding soil be excavated. On April 22, 23 and 26, 1991, Enviroserve of Farmingdale, New York conducted the excavation of pool 1. On April 23, and 26, 1991, approximately 850 tons of contaminated

soil was sent to the Vernor Material and Equipment Co., Inc. of Freeport Texas for disposal. The excavation was approximately 25 feet deep and approximately 50 feet in diameter. Due to physical constraints, the excavation could not be expanded. Stained soil was present at the bottom of the excavation. A sample from the bottom indicated that ethylbenzene (1,400 ug/kg) and total xylenes (17,100 ug/kg) were present. NCDH allowed for the backfilling of the excavation to prevent possible damage to the building.

At the request of NCDH, a soil boring investigation was undertaken by Geraghty & Miller to evaluate the residual contamination. A work plan was submitted to NCDH, reviewed and after revisions, approved. Three borings were advanced in and around the former excavation. A NCDH hydrogeologist was present on-site to oversee field activities.

Soil samples and one groundwater sample obtained from the borings were screened using an Hnu photoionization detector and a portable gas chromatograph calibrated to tetrachloroethylene, toluene, and trichloroethylene. Additionally some of the soil samples were submitted to a laboratory for analysis for volatile organic compounds, base/neutral acid extractable organic compounds and total petroleum hydrocarbons.

Based on this investigation, Geraghty & Miller concluded that additional remediation was not required. They contend that the remaining impacted soil is limited to a small area beneath clean fill. In addition, direct contact does not appear to be an issue due to the depth of the impacted soil. The sampling would appear to indicate that neither groundwater nor the soil beneath the residual contamination have been impacted. Geraghty & Miller recommended that the area be paved to reduce the infiltration of precipitation.

DEC and NCDH subsequently recommended that a layer of bentonite clay or other low permeability liner be installed beneath the paving material because asphalt alone is subject to cracking and infiltration.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Sampling identified five compounds of concern: toluene, trichloroethylene (TCE), tetrachloroethylene (PCE), ethylbenzene and total xylenes. These compounds are still present in the soil at the base of the excavation. The DEC and NCDH reviewed the Geraghty & Miller's Remedial Investigation Report and compared the data presented to applicable guidance values. The samples which represent the residual soil contamination were compared to TAGM HWR-92-4046 - Recommended Soil Cleanup Objectives (RSCO).

Below Table 1 summarizes the results:

TABLE 1

Residual Contamination Compared to Cleanup Objectives
Values in ppb

	SAMPLE DEPTH			
COMPOUND	22'	30-40'	70'	RSCO
TCE	24	ND	ND	700
PCE	154	ND	ND	1,400
Toluene	330	ND	ND	1,500
Ethylbenzene	1,400	ND	ND	5,500
Total Xylenes	17,000	ND	ND	1,200

ND = not detected

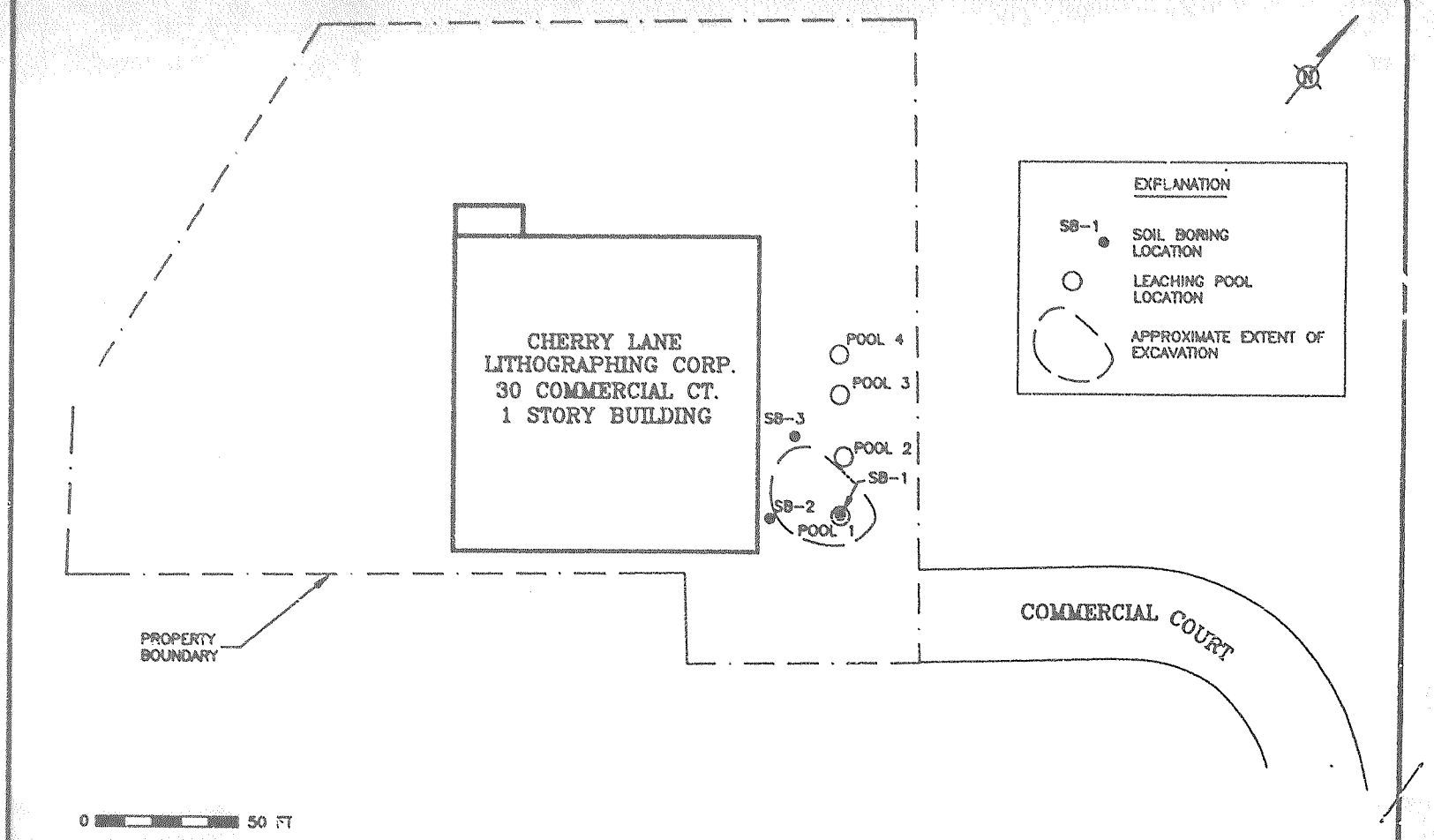
All of the contaminants except one (xylenes) are well below the Recommended Soil Cleanup Objectives. These RSCO's are generic values designed to protect groundwater quality. All of the compounds of concern drop off to non-detectable below the bottom of the excavation. Based on the depth to groundwater (50 feet below the bottom of the residual contamination) these values are expected to be protective of groundwater with a wider margin for error than intended. Additionally, the total xylenes remaining are below the Human Health Guidance Value for total xylenes of 2.0×10^8 ppb.

Due to the remote nature of the residual contamination, (below 20+ feet of clean fill) and due to the depth of the water table, the remediation is considered to be adequate for this location. It is recommended, as stated previously, that the area of the excavation be paved with asphalt and that the asphalt "cap" be supplemented with a four inch bentonite layer or other low permeability liner to minimize the infiltration of precipitation and run-off. Additionally, since the level of xylenes still present at the site after the excavation of the contaminated soil is well above the recommended cleanup objective of 1.2 ppm, at least one monitoring well should be installed and a monitoring program established. The monitoring well will ensure the protection of groundwater from any possible future migration of contaminants from the site.

Figure 1
Cherry Lane Lithography
Plainview/Oyster Bay, Nassau County

Huntington Quad - NYSDOT 1975

DWG DATE: 11/01	PROJCT NO.: NYSB3301	FILE NO.: 1422	DRAWING: CHERRYSB	CHECKED: M. GLOSE	APPROVED: M. GLOSE	DRAFTER: V. CARUNCHO



GERAGHTY & MILLER, INC.
Environmental Services

SOIL BORING LOCATIONS

CHERRY LANE LITHOGRAPHING CORPORATION
30 COMMERCIAL COURT, PLAINVIEW, NEW YORK

FIGURE
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