

1.0 INTRODUCTION

This document has been prepared for CSXT to describe the findings of the Phase II site investigation at the Spring Grove Avenue, Cincinnati, Ohio property. The report also provides a summary of background information and data generated in the preliminary site assessment. Finally, the Phase II investigation, findings and conclusions and recommendations are detailed in this report.

1.1 AUTHORIZATION

The Phase II site investigation of the former CSXT locomotive repair facility, located on Spring Grove Avenue in Cincinnati, Ohio was authorized by Richard Barry (CSXT) in a verbal communication to John Dwyer (WAPORA) on 15 June 1989. WAPORA, Inc. has completed all Phase II operations.

1.2 PURPOSE OF PHASE II OPERATIONS

Phase II was designed and implemented in response to the meeting of 16 March 1989 between the OEPA and CSXT and its representatives, and incorporates modifications specifically requested in the 1 May 1989 letter to Richard Barry (CSXT) from Bob Princic (OEPA). The specific modifications are as follows:

- Further delineation of groundwater contamination with the installation of five additional monitoring wells constructed of stainless steel;
- Groundwater sampling of MW2, MW4, and MW7 for Hazardous Substance List analysis; and
- Further delineation of soil contamination with the requested placement and sampling of six Hazardous Substance List test zones.

1.3 BACKGROUND INFORMATION

The Spring Grove Avenue site was formerly used as a maintenance yard for equipment cleaning, fueling, and repairs. Figure 1 shows the location of the site on a cut-out of the Cincinnati West USGS 7.5 minute topographic map. Maintenance yard operations

ceased in 1981, following a fire which destroyed a large portion of the repair shop. The site was subsequently abandoned. A portion of the property along Spring Grove Avenue was leased to Garden Street Iron & Metal, Inc. after the site was abandoned. Garden Street used the property to store miscellaneous debris, abandoned vehicles, tanks, scrap metal, and shavings. The lease was terminated on 15 July 1989.

The CSXT property was included in a site assessment program commissioned by Hamilton County, Ohio in 1988. The purpose of the assessment was to choose a site for the construction of a minimum security correctional facility. A geotechnical and environmental investigation was performed at the site. The environmental investigation report noted potential environmental impairment at the site.

The information contained in the report was submitted to the OEPA. OEPA, upon review of the report, requested that CSXT initiate a site assessment to address environmental concerns raised during the Hamilton County site assessment.

WAPORA conducted a preliminary site assessment from 19 September to 2 October 1988. The investigation addressed environmental concerns set forth in the above-mentioned report. Eight monitoring wells were installed on the property to determine groundwater levels, flow directions, and environmental impairment within the uppermost aquifer. A series of 33 soil borings were drilled at various locations on a grid system. The soil borings were installed to determine the presence and relative concentrations of suspected contamination.

Strong petroleum hydrocarbon (PHC) odor and free-phase oil were detected in many of the monitoring wells and soil borings. Laboratory testing of samples revealed variable concentrations of PHC. The PHC concentrations of composite samples retrieved during Phase I from soil borings ranged from 12 to 14,000 ppm. Groundwater samples were found to have PHC concentrations ranging from 2 to 200 ppm.

Soil and water samples were also tested for volatile organics, PCBs, EP Toxicity, total metals, and flash point. The information contained in the Preliminary Contamination Assessment Report was submitted to OEPA (Mr. Mark Hill). OEPA requested that CSXT expand the site investigation prior to implementation of remedial activities.

Preliminary Assessment Narrative

Date: 4/8/86
Company: ELDA Incorporated
I.D. #: OHDO80927171

The ELDA Landfill is located at 5701 Este Avenue in Cincinnati, Ohio - Hamilton County. The 125 acre site is west of Proctor & Gamble, Mill Creek, B & O Railroad, east of USEPA's research lab and approximately 5.5 miles north of downtown Cincinnati. ELDA Landfill is owned by Ohio Waste Systems Management and Waste Management Incorporated.

The landfill, which started operations in 1973, currently accepts general solid wastes and approved special wastes such as asbestos and zinc cyanide. Permits to Install (PTI) were approved by the Ohio EPA for disposal of these other special wastes. (Asbestos is a special solid waste approved for disposal in the landfill but does not require a PTI.)

Soil borings showed that the site lies on top of a thick shelf of relatively impervious silty clay underlain by interspersed discontinuous layers of sand and clay. A leachate collection system, completed in 1983, prevents any possible leachate from percolating off-site. The leachate is analyzed regularly and piped to Metropolitan Sewer District (MSD). Analyses from samples taken by Environmental Testing Certification on 11/20/84 detected organic chemicals such as 1,1 di-chloroethane (77 ug/l), ethylbenzene (25 ug/l), methylene chloride (142 ug/l), toluene (~~322~~ ug/l), and vinyl chloride (23 ug/l).

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Five monitoring wells were installed on-site in 1980. Sample analyses from Environmental Enterprises Incorporated date back to September 1981. Annual sampling of the wells has continued since then. Split samples taken by Rich Bendula, OEPA-Geologist, on 3/11/86 indicated that all five wells were within the National Interim Primary Drinking Water Standards (DWS) for heavy metals. Community drinking water is supplied by the City of Cincinnati.

This is a low priority site for State and FIT activities. Continued sampling of the monitoring wells and leachate system is recommended. All results are to be sent to Rich Bendula at the OEPA office. The site is adequately addressed by existing solid waste regulations. No FIT activities are required at this time.

ENVIRONMENTAL PROTECTION AGENCY
SOUTHWEST DISTRICT
JUN 2 1 1986

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THE WINTON HILLS REGION OF CINCINNATI

SUMMARY OF ENVIRONMENTAL ADVISORY COUNCIL'S CONCERNS

ELDA Landfill

In February 1986, the EAC formally brought to the city's attention the fact that the ELDA landfill was on the U.S.EPA's Comprehensive Environmental Response, Compensation and Liability Act Inventory System (CERCLIS — formerly called ERRIS) list of reported potential hazardous waste sites. The EAC recommended that the city request the Ohio EPA to conduct a Preliminary Assessment of the site as soon as possible to determine if the landfill posed any environmental risks.

There is a strong possibility that hazardous materials were disposed of in the ELDA landfill during the 1970 decade, prior to RCRA and Superfund legislation, because of the following information, obtained from both the U.S.EPA and the Ohio EPA:

—Mobil Chemical Company reported that it used ELDA for hazardous waste disposal from 1973 to 1979. Forms that Mobil submitted to the U.S.EPA indicate Mobil contracted with two hazardous waste haulers to transport wastes from Mobil to the ELDA landfill: Browning-Ferris International Inc. from 1973-79 and Liquid Waste Inc. from 1978-79.

— Borden Inc. (Pigments Division of the Printing Ink Division of the Chemical Graphics Division of Borden) reported that the company hauled wastes to ELDA in 1977. The type of wastes listed in the reporting form were "organics; inorganics; heavy metals; and other - paints and pigments."

— Hilton Davis, according to an April 1986 memorandum from Health Commissioner Stanley Broadnax, received approval from the then state Public Health Engineer's Office of Land Pollution Control to dispose of "wastewater sludge cake" on 10/29/76. Broadnax does not specify for what time period the state's permission to Hilton Davis extended.

The Ohio EPA's Preliminary Assessment on the ELDA landfill was completed in April 1986. The Preliminary Assessment indicates that interviews were conducted with ELDA management personnel and Ohio EPA records were checked, but does not mention any review of records belonging to Borden Inc., Mobil Chemical Company, Hilton Davis, or the two hazardous waste haulers. According to the Preliminary Assessment report, no new tests were conducted, except for split samples of water from five monitoring wells. These samples showed "that all five wells were within the National Interim Primary Drinking Water Standards for heavy metals. Community drinking water is supplied by the City of Cincinnati." However, according to neighborhood representatives, there are a number of families living in the Dutch Hollow area who rely on groundwater for their drinking water supplies.

According to the April 1986 report, analyses of leachate samples taken in November 1984 detected organic chemicals such as 1,1 di-chloroethane (77 ug/l), ethylbenzene (25 ug/l), methylene chloride (142 ug/l), toluene (3222 ug/l) and vinyl chloride (23 ug/l).

Among the hazardous conditions and incidents the Ohio EPA report did not evaluate for the ELDA landfill (the letters "N/A" -- "not applicable" -- are written in the relevant blocks on the assessment form) are the following: "Contamination of Air; Fire/Explosive Conditions; Contamination of Soil; Population Exposure/Injury; Unstable Containment of Wastes; Contamination of Sewers, Storm Drains."

The Ohio EPA's report concludes that "This is a low priority site for State and FIT activities. Continued sampling of the monitoring wells and leachate system is recommended....The site is adequately addressed by existing solid waste regulations. No FIT activities are required at this time."

In July 1986, migrating gases alternatively referred to as "methane gas" and "landfill gas" were discovered in the surface soil and below the ground in the vicinity of the Elda Landfill and the Varsity Circle residential area of Winton Hills. From all reports, it appears that the Ohio EPA, Elda Management, and relevant city agencies acted responsibly in monitoring the levels of "methane gas" and in installing a "methane" extraction system.

According to an August 23, 1986 report prepared by Timothy Burke, of Manley, Burke and Fischer, a methane recovery plant is being constructed on the southeast portion of the property. A subsequent report by Mr. Burke dated 8/26/86 states that the methane migration is "restricted to the utility backfill trenches underneath and adjacent to the pavement of the parking lot in the area of 5349-5411 Varsity Circle. Gas is still found in the ground around the complex. This gas is not moving and has not spread since our initial readings, though its concentration in the ground has diminished slightly."

At the public meeting held in Winton Hills on September 25, 1986, Mr. Joseph Moore, Ohio EPA, stated that "all but three or four locations now have no gas...there is lingering gas which is still trapped in the soil...the present extraction system is withdrawing gas from the upper elevations, but in the deeper strata, the gas is migrating laterally and will require deeper probes."

At the same public meeting, public health and Ohio EPA officials offered repeated assurances to the residents of the Winton Hills region that there were no harmful health effects associated with exposures to the low level

of "methane gas" found in the Varsity Circle vicinity. However, the EAC learned from these same officials that no one -- the Ohio EPA, the ELDA management, or any city agency -- had tested the gases to determine their actual composition.

With the suspected history of this landfill, it is possible that exposures to other constituents of the gaseous mixture (e.g., carcinogenic volatile organic compounds) even at very low levels over time may cause harmful health effects. The actual composition of the gases is also important to know in evaluating the effect of uncontrolled emissions from the flare, which is part of the extraction system, and from the future resource recovery plant.

Old Center Hill Landfill

On July 8, 1986, three employees of a city contractor who were working on a stormsewer line for the Recreation Commission's Crosley Field Sports Center were injured when "landfill gas" exploded after one of the workers lit a cigarette.

According to a city administration report dated 9/10/86, the Recreation Commission has known about the landfill gas problem since at least September 1984. It should be noted that the old Center Hill landfill is also a CERCLIS site;* to the EAC's knowledge, the Ohio EPA has not conducted a Preliminary Assessment of this location to date.

To the northwest of the landfill site, a new industrial/warehouse complex is located. Directly on top of at least a portion of the old Center Hill landfill is the Recreation Commission's new baseball field and nearby, along Center Hill Road, is the newly constructed recreation complex building. To the southeast of the landfill (and possibly on part of the CERCLIS site) is the proposed location for the ENCOA incinerator.

According to the 9/10/86 city administration report:

"...Preliminary investigations are being made by Waste Management and the Sanitation Division of Public Works to estimate the gas generation rate in the Center Hill Landfill. These investigations will consist of an historical review of the landfill's operation, including such items as waste composition, depth and area, and computer calculations on expected generation based on that information. The feasibility and economics of active recovery or venting of the gas can then be better known.... Various

* The CERCLIS site is listed as "Este Avenue Dump, Este and Township Avenue, #CHD980509988.

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Preliminary Assessment Narrative

Date: December 31, 1986
Company: Emery Chemicals, INC..
I.D.#: OHDO93903235

Emery Industries, Inc. had changed its name to Emery Chemicals, Inc. Emery is a Division of National Distillers and Chemical Corporation located in New York. The operating plant is located on 4900 Este Avenue in Cincinnati, Ohio - Hamilton County. It is just south of the E.L.D.A. landfill, northwest of the city of Saint Bernard, and it lies along Mill Creek.

The company started its operations at the site in 1885. They manufacture specialty chemicals primarily from fats and oils under vacuum and very high temperatures. Records indicate that Emery used three surface impoundments for organic sludge disposal from 1970-77. In 1978, excavation of the 8,500 cubic yards from the ponds commenced. The filter cakes from these impounds were transported to the ELDA, and the Rumpke landfills in Hamilton County. Cleanup finished in 1980 and a closure certificate was issued in 1982.

Studies on the waste composition from the impounds showed organic components to be reasonably biodegradable. The waste contained metallic ions in insoluble forms - Chromium, nickel, aluminum, iron, calcium, manganese, and magnesium. Heavy metals were in low concentration and they included hexavalent chromium, mercury, cadmium, and lead. Results from leachate samples indicated minimal effects. Toxic effects from the wastewater residual was found to be non-existent.

HWFAB issued Emery with a Hazardous Waste Facility Installation and Operation permit on December 28, 1981. Emery withdrew its part B of RCRA-TSDF permit in 1982. In April of 1985, the company was assigned as a "generator only" with 90 day storage.

Files show that Emery has voluntarily reported to OEPA several spills into Mill Creek and to the sewer drains in its operations. Most of the spills were different forms of alcohols and acids at low volumes. These spills were either contained or recovered.

The only potential hazardous situation that remains at Emery is fire/explosive conditions. (The extreme temperatures that the company uses warrants this comment.) Concerned hazardous substances at this time are cleaning solvents. However, these solvents are in small amounts on the site to be of a major concern. Emery's Contingency plan for safety indicates a well reorganized approach to responding to any emergencies that may arise.

A low priority for the state and a low F.I.T. activity is recommended. Emery should be inspected under the appropriated guidelines to maintain a "generator only" status.

PRELIMINARY ASSESSMENT NARRATIVE

ESTE AVENUE DUMP
5700 CENTER HILL ROAD
CINCINNATI, OHIO 45232
HAMILTON COUNTY

ID #: OHD980509988

ESTE AVENUE DUMP IS LOCATED WEST OF THE TOWN OF ELMWOOD PLACE, NORTH OF THE TOWN OF SAINT BERNARD, AND IT IS SEVERAL HUNDRED YARDS FROM THE E.L.D.A. LANDFILL (CERCLIS SITE). AN INOPERATIVE INCINERATOR PLANT IS LOCATED ON SITE, AND MILL CREEK IS ABOUT 75 YARDS TO THE EAST. THE CITY LANDFILL STOPPED TAKING WASTES IN 1977. SINCE THAT TIME, IT HAS BEEN TURNED INTO RECREATIONAL BALLFIELDS. THE NORTH END OF THE LANDFILL IS CURRENTLY BEING FILLED WITH DEMOLITION WASTES. SIZE OF THE LANDFILL IS APPROXIMATELY 30 ACRES.

FROM 1955 TO 1977, THE SITE WAS USED TO DISPOSE OF ALL TYPES OF WASTE MATERIALS. IT PROVIDED THE CITY OF CINCINNATI A NEW SITE FOR DISPOSAL OF INCINERATOR RESIDUE AND NON-COMBUSTIBLES. IN 1972, THE CITY STOPPED DISPOSING OF MUNICIPAL WASTES BUT CONTINUED WITH THE DISPOSAL OF RESIDUE WASTES. SAMPLE RESULTS OF RESIDUE QUENCH WATER AND RESIDUE LEACHATE INDICATED INCOMPLETE COMBUSTION OF WASTES THAT DID NOT RENDER THE WASTES INERT. DAILY COVERING OF THE WASTES WAS NOT PRACTICED AT THE SITE. THIS METHOD OF LANDFILLING, ALONG WITH THE UNDESIRABLE CHEMICAL QUALITY OF THE RESIDUE, COULD HAVE RESULTED IN GROUNDWATER AND/OR SURFACE WATER CONTAMINATION.

THE OHIO EPA AND THE CINCINNATI HEALTH DEPT. WORKED WITH THE LANDFILL OPERATORS TO STOP THE OPEN DUMPING OF THE UNINCINERATED WASTES. EVENTUALLY, THE LANDFILL STOPPED TAKING RESIDUE WASTES IN 1977. THERE MAY HAVE BEEN HEAVY METALS AND TRACE METALS DISPOSED AT THE SITE. UNITED STATES PLAYING CARD COMPANY (OHDO04234217) LISTS CENTER HILL LANDFILL IN ITS CERCLA 103(C) FORM AS HAVING BEEN USED FOR THE DISPOSAL OF "OLD COATING IN 55 GALLON DRUMS." THE COATINGS WERE PIGMENTED AND WERE COMPOSED OF 20% ORGANICS AND 80% INORGANICS. THIS SITE MAY HAVE RECEIVED OTHER INDUSTRIAL WASTES TOO.

BECAUSE OF PAST OPERATIONAL AND DISPOSAL PROBLEMS, METHANE GAS WAS GENERATED AND RELEASED TO THE SURFACE AND SURROUNDING ATMOSPHERE FROM THE RESIDUE WASTES DISPOSED AT THE SITE. ON 7/8/86, THREE WORKERS IN A BUILDING AT THE SITE WERE INJURED FROM A METHANE FLASH FIRE. THEY WERE TREATED AND RELEASED AT A HOSPITAL.

AT A CITY OF CINCINNATI COUNCIL MEETING, A CITIZEN REPRESENTING THE COMMUNITY NEAR THE SITE, ALONG WITH AN ENVIRONMENTAL ADVISORY COUNCIL (EAC) REPRESENTATIVE, DISCUSSED MANY OF THE REPORTED HEALTH COMPLAINTS IN THE AREA. EAC RECOMMENDED THAT A STUDY BE INITIATED FOR THE POTENTIAL HEALTH EFFECTS FROM THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, LIABILITY, AND INFORMATION SYSTEM (CERCLIS) SITES, AND FROM THE INDUSTRIAL PLANTS IN THE AREA. OTHER CERCLIS SITES IN THE AREA

ESTE AVENUE DUMP

HD980509988

PAGE 2

INCLUDE: WINTON RIDGE LANDFILL, GRAY ROAD LANDFILL, CANAL RIDGE ROAD DUMP, E.L.D.A. LANDFILL, AND EMERY CHEMICALS COMPANY.

THE SITE OVERLIES A GENERAL AREA OF UNCONSOLIDATED AQUIFER. THE SOIL IN THE AREA IS COMPOSED OF CLAY, SAND AND GRAVEL. THE CITY OF WYOMING WATER SUPPLY WELLS ARE ABOUT 3 MILES FROM THE SITE. THERE ARE ALSO SEVERAL PRIVATE AND/OR INDUSTRIAL WELLS IN THE AREA. THESE WELLS AND OTHERS MAY OR MAY NOT BE IN USE. METHANE GAS THAT HAS BEEN DETECTED AT THE SITE HAS BEEN AS HIGH AS 80% CONCENTRATION. (MONITORING CONDUCTED BY NORHTWEST DISTRICT, CITY OF CINCINNATI HEALTH DEPT. OFFICIAL.)

A MEDIUM PRIORITY FOR THE STATE AND A MEDIUM PRIORITY FOR F.I.T. ACTIVITY IS RECOMMENDED FOR THIS SITE. THERE IS THE POTENTIAL FOR GROUNDWATER AND SURFACE WATER CONTAMINATION SHOULD THERE BE ANY HEAVY METALS AND/OR OTHER HAZARDOUS SUBSTANCES PRESENT AT THE SITE. F.I.T. ACTIVITY SHOULD INCLUDE GROUNDWATER, SOIL, AND LEACHATE SAMPLING IF ANY SEEPS ARE FOUND TO EXIST.

PREPARED BY:

Chul Kim-McGuire
CHUL KIM-MCGUIRE
DISTRICT CERCLIS COORDINATOR
OEPA - SOUTHWEST DISTRICT
JUNE 2, 1987

REVIEWED BY:

Michael Starkey
MICHAEL STARKEY
DISTRICT UNREGULATED SITES
GROUP LEADER
DIVISION OF SOLID AND HAZARDOUS
WASTE MANAGEMENT

Preliminary Assessment Narrative

Date: March 14, 1984
Company: General Electric/Evendale - Aircraft Engine Group
I.D.#: OHD000817312

General Electric basic site activities include manufacturing and testing of jet aircraft engines. The facility is partially owned by General Electric Co. and partially owned by U. S. Air Force. General Electric is controlled by RCRA management as a TSD facility.

G.E.'s main concern is the abandoned sludge basins located near building 508, Scrap and Salvage area. The east basin is approximately 8,000 cubic yards in size and the west basin is approximately 2,000 cubic yards. Historically, these basins were constructed by Wright Aeronautical in 1944. They were used to store water treatment sludge, which is basically lime sludge. The Auto lite Co. began operations after the shutdown of Wright. Auto lite used the basins to store water treatment sludge and electro plating waste. The treatment included the destruction of cyanide and the reduction of hexavalent chromium to trivalent chromium. This operation ceased in 1958.

It was common practice to fill one basin while using the other basin for dewatering and drying. Afterwards, the dewatered basin was excavated and the sludge hauled to a landfill.

These basins were used by the past and present owners as impoundments for water treatment sludge and electroplating waste. At present, the basins are inactive. General Electric is concerned about the present condition of the basins. Both basins were tested in 1980. The test results exceed the allowed limits on E.P. Toxicity Test for cadmium and chromium. In 1981, core samples were taken around the north side of the basins for determining migration of pollution. Those results indicate minimal migration of metals. Upon the development of further geological information, it was discovered that the upper aquifer flows in a southerly direction and the lower confined aquifer flows in a south-southwest direction. General Electric decided to install 3 monitor wells along the southern edge of the basin to watch for movement of contaminants. Sample analysis was taken in April, 1982, and September, 1982, and each sample was analyzed by two different labs, DuBois Testing and Pedco Environmental. All results had somewhat lower concentrations. Although these values are below drinking water standard, the presence of any of these contaminants indicate groundwater pollution. The presence of chromium and cadmium is a very good reason for further monitoring.

E & E proposed groundwater monitoring. My recommendations are the same proposed by E & E. A site inspection is necessary to obtain further information. The well field

Assessment Prepared by:

Darrell F. Jones, ECHIS Coordinator, SWDD

Review by:

David H. Duell OHMMS/SWDD

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OHIO EPA

APR 12 1984

HAZARDOUS

For the City of Reading is within a mile south of General Electric. These fields are well within the limits as a target area. The tributary to the Mill Creek, which flows around the northeastern edge of the basins should also be monitored. I would like to be on this site inspection upon scheduling.

General Electric is north of Pristine and Cincinnati Steel Drum. These facilities may not influence the findings locally around G.E. but they may affect the results of the well field.

DPD:bjg

Preliminary Assessment Narrative

Date: May 29, 1984
Company: Highland Greens WWTTP
I.D.#: OHD980898613

Highland Greens facility was a sewage treatment plant for the Highland Greens Apartment complex. This plant was abolished in 1981 on account of a merger with the Upper Mill Creek Regional Waste Project.

The plant had problems typical to sewer treatment operations. Many of these problems were solved by the merger and with the elimination of the lagoons and the plant. This facility had never received any waste chemicals for disposal.

The site seems in stable conditions. It is a marshy area with plenty of wildlife. I observed about 10 ducks in the temporary marsh. I see no need for F.I.T. activity or state response. This site should be eliminated from the Erris List.

Assessment Prepared by:

Daryl Fowler, Erris Coordinator

Review by:

D. Stayer, Supv. 51401MV

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Date: 7/1/86
Company: Laidlaw City Dump
I.D.#: OHD000810176

SEP 04 1986
Environmental Protection Agency
SOUTHWEST DISTRICT

The City Dump on 735 Laidlaw Avenue Cincinnati, Ohio started operations prior to 1960. It is located on the northeast corner of Mill Creek Expressway and the Norwood Lateral (St. Rt. 562). The B & O Railroad runs south of the site and Laidlaw is north of it. Solid and industrial wastes were disposed of on-site prior to the takeover of Proctor and Gamble Co. in 1960.

Proctor & Gamble disposed of plastics, glass, and metal containers, wood, paper, garbage and manufactured waste products. The waste was dumped at the five acre site in a mismanaged fashion. The landfill contained a shallow lagoon about 7 feet by 300 feet which received approximately 120 tons per month of liquid residue from the distillation of glycerine. This site was not in compliance with the solid waste regulations because there was no daily cover and material other than solid wastes were dumped in the landfill.

The Cincinnati Health Department notified Proctor & Gamble of their violations and restricted their activities to hardfill such as concrete, bricks and sand. The files do not indicate any hazardous wastes disposed of on-site. Proctor & Gamble was commended for their cooperation and improved solid waste practices. (The site has a dense grass cover now). This site is a medium priority site for State and Federal activities.

A FIT (Field Investigation Team) inspection is recommended because the site is located in a sand and gravel buried valley aquifer. This creates the potential for glycerine to leach through the lagoon into the groundwater. Groundwater samples should be taken so installation of monitoring wells are required. Soil samples should also be taken in the area where the lagoon was located.

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PRELIMINARY ASSESSMENT NARRATIVE

Lockland Works (E.I. DuPont de Nemours & Company, Inc.)
606 Shepard Drive
Lockland, Ohio 45215

OHD980704704

→ Pilot Chemicals'
address!

The Lockland Works facility is located in the Village of Lockland in a mixed industrial and residential area. Former property boundaries of the facility are unknown, but it is believed that the site was bounded by Anthony Wayne Road to the east, the West Fork of Mill Creek to the west and south and the southern city limits of Lincoln Heights to the north. E.I. Dupont de Nemours & Company, Inc. owned and operated a sulfuric acid manufacturing plant at this site between 1929 and 1951. DuPont sold the 137 acre landholding in three separate parcels during the 1950's. The land has since been parcelled further and is currently occupied by Pilot Chemical, truck terminals and Lockland's municipal landfill. The area of concern at this site is reported to have covered approximately 1600 square feet within the 137 acre landholding. The exact location of the facility operations is not known, but the Lockland Building Commissioner believes the location to have been at 606 Shepard Drive, which is currently occupied by Pilot Chemical Company. The site was brought to the attention of the Ohio EPA by a Notification of Hazardous Waste form.

Sulfuric acid manufactured by the lead chamber process generated a lead sulfate sludge which was disposed of on-site in shallow pits as well as directly onto the ground surface. Contamination concerns include groundwater, surface water and direct contact. The site lies above the Mill Creek buried valley aquifer - fill deposits which supply 25,700 residents of Reading, Glendale and Wyoming with drinking water. The nearest well to the site is for the community of Wyoming and is located at 4500 feet to the south; Reading's well is located 6500 feet east of the site and the Glendale community well is located 2.5 miles northeast of the site. All wells pump from the sand and gravel valley fill deposits at depths ranging from 130 to 220 feet. Detailed site geology is unknown, although area well logs indicate the presence of a thick till deposit which may separate the aquifer of concern from site contamination.

The West Fork of Mill Creek is located about 500 feet west of the site. Runoff, overland flow and subsurface seeps may have accelerated contaminant migration toward the creek. The West Fork of Mill Creek is not generally used for recreational or drinking water purposes. Direct contact is of concern as former site security is unknown and the nearest home is located less than 800 feet away.

Lockland Works
OHD980704704
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It is recommended that this site be given a medium priority for additional investigation activities by the state and FIT. Investigations should include sampling of the West Fork of Mill Creek sediments, on-site soils and residential wells in the area.

Narrative completed by Ecology & Environment, Inc. 9/3/86

Narrative updated 12/7/87 by Claudine F. Jones, OEPA/SWDO/DSHWM

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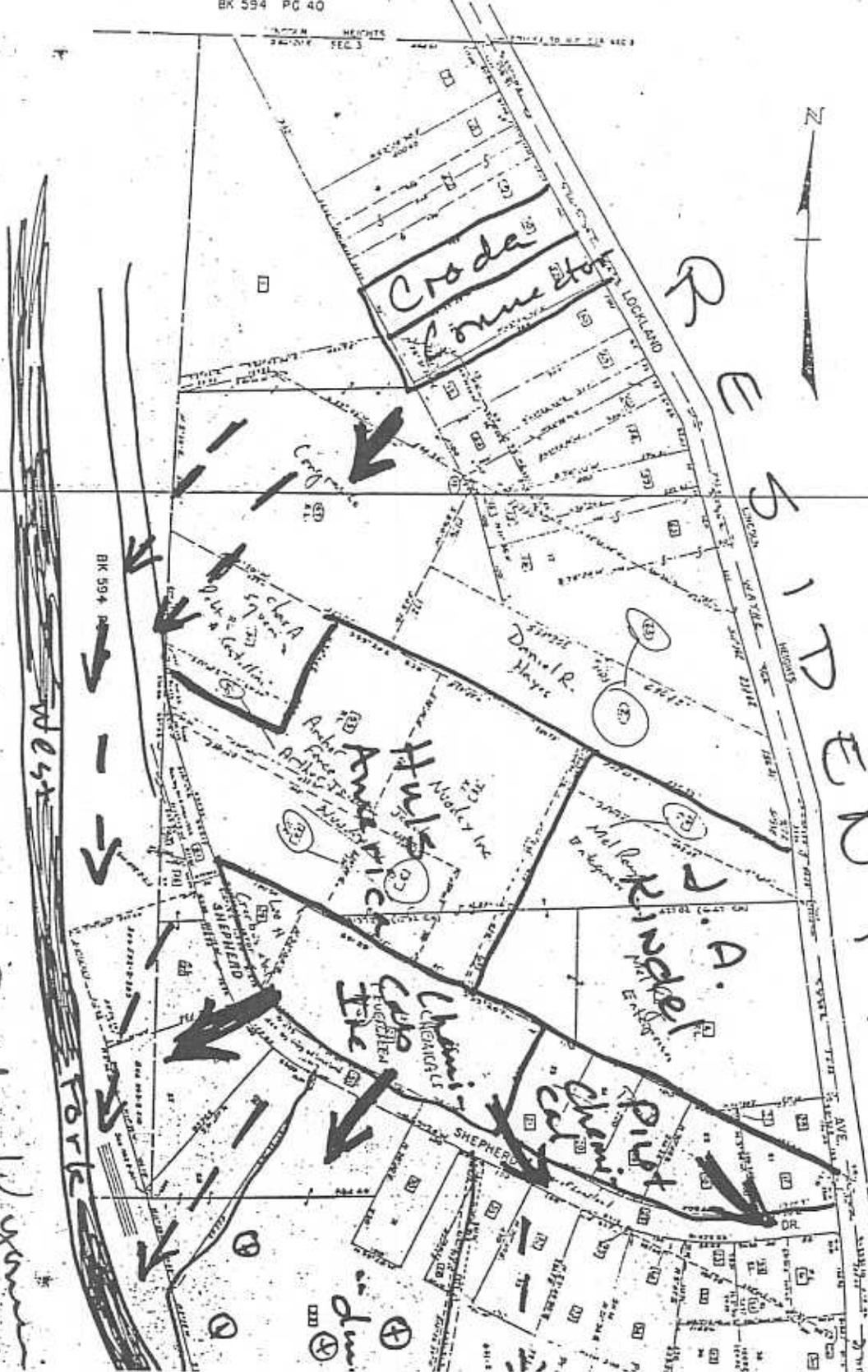
MONY WAYNE INDUSTRIAL PARK SUB BL 2 + B TO P 40 BL
MONY WAYNE INDUSTRIAL PARK SUB PT. 1 BL 3 FROM P 40 BL

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BK 594 PG 40

SECTION HEIGHTS
SECTION SEC. 3

↑ ground water flow
↑ surface water flows



BK 594 PG 10

SHEPHERD LE.

123 Coast Street, Lockland, Pa. 19050
Charles Patrick Hoesgen, Director

Lockland, Pa. 19050
641
John C. Schaefer, Director

West Park, W. Wayne Park by all

Plans
Landscape

PRELIMINARY ASSESSMENT NARRATIVE

TENNECO CHEMICAL, INC.
620 SHEPHERD DRIVE
LOCKLAND, OH 45215
HAMILTON COUNTY

ID #: OHDO41604729

THE FACILITY IS LOCATED ABOUT 3/4 MILES WEST OF I-75, SOUTH OF LINCOLN HEIGHTS, NORTH OF THE CITIES OF WYOMING AND LOCKLAND, AND ABOUT 1/8 MILE EAST OF THE BALTIMORE AND OHIO RAILROAD. THIS FACILITY IS IN OPERATION. ON DECEMBER 22, 1982, NUODEX INC. PURCHASED THE FACILITY FROM TENNECO INC. IT IS CURRENTLY UNDER THE RCRA - GENERATOR STATUS.

ACCORDING TO THE ECKHARDT - WASTE DISPOSAL SURVEY (1979), TENNECO DISPOSED SOME OF THEIR WASTES AT METROPOLITAN SEWER DISTRICT, MILL CREEK, 1600 GEST STREET, CINCINNATI, OH. THE TYPES OF WASTES DISPOSED THERE INCLUDED WASTES CONTAINING HEAVY METALS AND TRACE METALS, ORGANICS AND MISCELLANEOUS WASTE MATERIAL(S). THE AMOUNT OF WASTES DISPOSED IS SAID TO BE 2.6 MILLION GALLONS. A 1981 INDUSTRIAL SURVEY CONDUCTED BY OHIO EPA - SOUTHWEST DISTRICT, INDICATED NO ON-SITE WASTE DISPOSAL. THE COMPANY REPORTED THE DISPOSAL OF WASTE SOLVENTS AT GENERAL PORTLAND, INC., ROUTE 127 N, PAULDING, OHIO, LICENSE #OHDO05048-947, AND THE DISPOSAL OF PAINT COLORANT SLUDGE AT CECOS/CER CO., 5092 ABER ROAD, WILLIAMSBURG, OH.

OTHER THAN THE TWO SURVEYS, THERE IS NO OTHER INFORMATION INDICATING THAT TENNECO HAD DISPOSED ANY WASTES ON-SITE. THE TWO ABOVE-MENTIONED DISPOSAL SITES ARE RCRA FACILITIES.

IF ANY WASTES CONTAINING HAZARDOUS SUBSTANCES WERE DISPOSED ON-SITE, THERE CAN BE A POTENTIAL GROUNDWATER CONTAMINATION. THE CITY OF WYOMING AND READING HAVE PUBLIC WATER SUPPLY SYSTEMS NEARBY THAT CAN BE AFFECTED.

A LOW STATE PRIORITY AND NO F.I.T. ACTIVITY IS RECOMMENDED FOR THIS SITE. THE DIVISION OF SOLID AND HAZARDOUS WASTE MANAGEMENT, RCRA GROUP, SHOULD INSPECT THE FACILITY TO INSURE THAT THE COMPANY MEETS RCRA - GENERATOR REGULATIONS.

PREPARED BY:

Chul Kim - McGuire
CHUL KIM-MCGUIRE
DISTRICT CERCLIS COORDINATOR
OEPA - SOUTHWEST DISTRICT
JUNE 19, 1987

REVIEWED BY:

Michael Starkey
MICHAEL STARKEY
DISTRICT UNREGULATED SITES
GROUP LEADER
DIVISION OF SOLID AND HAZARDOUS
WASTE MANAGEMENT

CHEMICALS INC.
LOCKLAND
 HAMILTON COUNTY

SITE DESCRIPTION

This chemical repackaging and distribution facility, which is located in the Anthony Wayne Industrial Park, repackaged inorganic and organic chemicals, metal finishing products, lawn care products and agricultural products. The site has been used for industrial purposes by various owners since 1927.

CURRENT STATUS

In June 1990 an invitation to negotiate was extended to the potentially responsible party. Administrative negotiations for an interim action at the site were completed in July 1991.

ENVIRONMENTAL CONCERN

On-site and off-site ground water contamination with volatile organic chemicals has been discovered. Contaminants of concern include chlorinated solvents. The municipalities of Wyoming and Lockland have public drinking water supply wells located within 1/2 mile and 1/8 mile, respectively, of the facility.

ACTIVITY	ACTION DATE	STATUS	FUNDING SOURCE	COMMENTS
CONSENT ORDER	7/91	C	PRP	
IA	12/91	Current	PRP	finishing investigation stage
RI				
FS				
RD				
RA				
O & M				