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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

HPRM
DO NOT ALTER

REPLY TO THE ATTENTION OF:
HRM-7J

APR 23 1992

Mr. Ken Burda
Waste Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Re: Preliminary Assessment/Visual Site Inspections

Dear Mr. Burda:

Enclosed are Preliminary Assessment/Visual Site Inspections for your files (see enclosed list). The Executive Summary and Conclusions and Recommendations sections have been withheld as "enforcement confidential".

If you have any questions, please contact me at (312) 886-7580.

Sincerely yours,

Lorraine Kosik

Lorraine Kosik
Michigan Project Officer

Enclosures

RECEIVED
APR 3 1992
Waste Management Division

INDEX OF DOCUMENTS

1)	Gencorp Automotive, Inc.	MID 053 669 040
2)	T.C. Realty	MID 041 803 123

U.S. Environmental Protection Agency
Office of Waste Programs Enforcement
Contract No. 68-W9-0006

TES 9

Technical Enforcement Support at Hazardous Waste Sites Zone III Regions 5,6, and 7

PRC
PRC Environmental Management, Inc.

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

T.C. REALTY, INC. (FORMERLY ETHYL CORPORATION) FERNDALE, MICHIGAN MID 041 803 123

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

Work Assignment No.	:	C05087
EPA Region	:	5
Site No.	:	MID 041 803 123
Date Prepared	:	March 16, 1992
Contract No.	:	68-W9-0006
PRC No.	:	009-C05087MI2M
Prepared by	:	PRC Environmental Management, Inc. (Kevin Schnoes)
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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the TC Realty, Inc. (TCR), facility in Ferndale, Michigan. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritization of RCRA facilities for corrective action.

The TCR facility is used for computer aided design (CAD), computer aided manufacturing (CAM), and product testing and analysis. The facility generates and manages the following waste streams: mineral spirits (D001), waste hydraulic oil, and waste motor oil. The facility has operated at its current location since 1987. The facility occupies 34 acres in an area of mixed use and employs about 110 people. The facility is a small-quantity generator of hazardous waste. Ethyl Corporation (Ethyl) owned the facility from 1936 to 1987. In 1983, Ethyl employeed about 50 people. On June 1, 1984, Ethyl donated the facility to the National Counsel for Community Development, Inc. (NCCD), a charitable organization; however, Ethyl remains responsible for any remedial action needed at the facility. CMI Tech Center, Inc. (CMI), purchased the facility from the NCCD on December 3, 1987. CMI has changed its name to TCR since then.

The PA/VSI identified the following 4 SWMUs at the facility:

Solid Waste Management Units

1. Former Drum Storage Area (DSA)
2. Burial Pit Area 1
3. Burial Pit Area 2
4. Container and Tank Storage Area (CTSA)

Releases of toluene, chloroform, and tetrahydrofuran to ground water from on-site burial pits have been documented in on-site monitoring well samples. Ethyl contends that the contaminants detected are either at too low a concentration to pose a threat to the environment, or are a result of monitoring-well installation. Ground water is not used as a source of drinking water in this area. Ground water in the area is not used for anything else.

The potential for a release to surface water is low. The nearest surface water body is a small isolated pond that measures about 100 feet by 50 feet about 1 mile southeast of the facility.

This pond does not appear to have any use. No other major surface water bodies exist in the vicinity of the TCR facility.

The potential for a release to the air is low. The SWMUs at the facility do not appear to emit vapors. Also, the facility has never had an air permit.

Releases of organic contaminants to the on-site soils have been documented. Drilling near the Burial Pit Area 1 (SWMU 2) in the northwest corner of the facility revealed organic contamination of subsurface soils.

No wetlands or sensitive environments exist within 4 miles of the facility. Also, there are no ground-water wells within 2 miles.

Access to the facility is restricted by a fence and a security guard system operating 24 hours a day, seven days a week. A logbook is kept to monitor on-site personnel.

The nearest residences are 1 mile adjacent to the east and west boundaries of the facility property.

PRC recommends that TCR and Ethyl continue with their monitoring programs. Also, the extent of soil and ground-water contamination should be determined.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading-unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all visible SWMUs, identifying evidence of releases, initially identifying potential sampling parameters and locations, if needed, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the T.C. Realty, Inc. (TCR), facility in Ferndale, Michigan. The PA was completed on January 31, 1992. PRC gathered and reviewed information from the Michigan Department of Natural Resources (MDNR) and from EPA Region 5 RCRA files. The VSI was conducted on February 4, 1992. It included interviews with facility representatives and a walk-through inspection of the facility. Four SWMUs and no AOCs were identified at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and three inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, history of documented releases, regulatory history, environmental setting, and receptors.

2.1 FACILITY LOCATION

The TCR facility is located at 1600 West Eight Mile Road in Ferndale, Oakland County, Michigan (latitude 42°26'47"N and longitude 83°8'50"W), as shown in Figure 1. The facility occupies 34 acres in an area of mixed use.

The TCR facility is bordered on the north by Ferndale High School; on the west by Goodwill Printing and private residences; on the south by All American Car Rental, the Detroit Store Fixture Co., General Type and Supply, A1 Transmissions, and Tuffy Service Center; and on the east by a Citgo gas station and private residences.

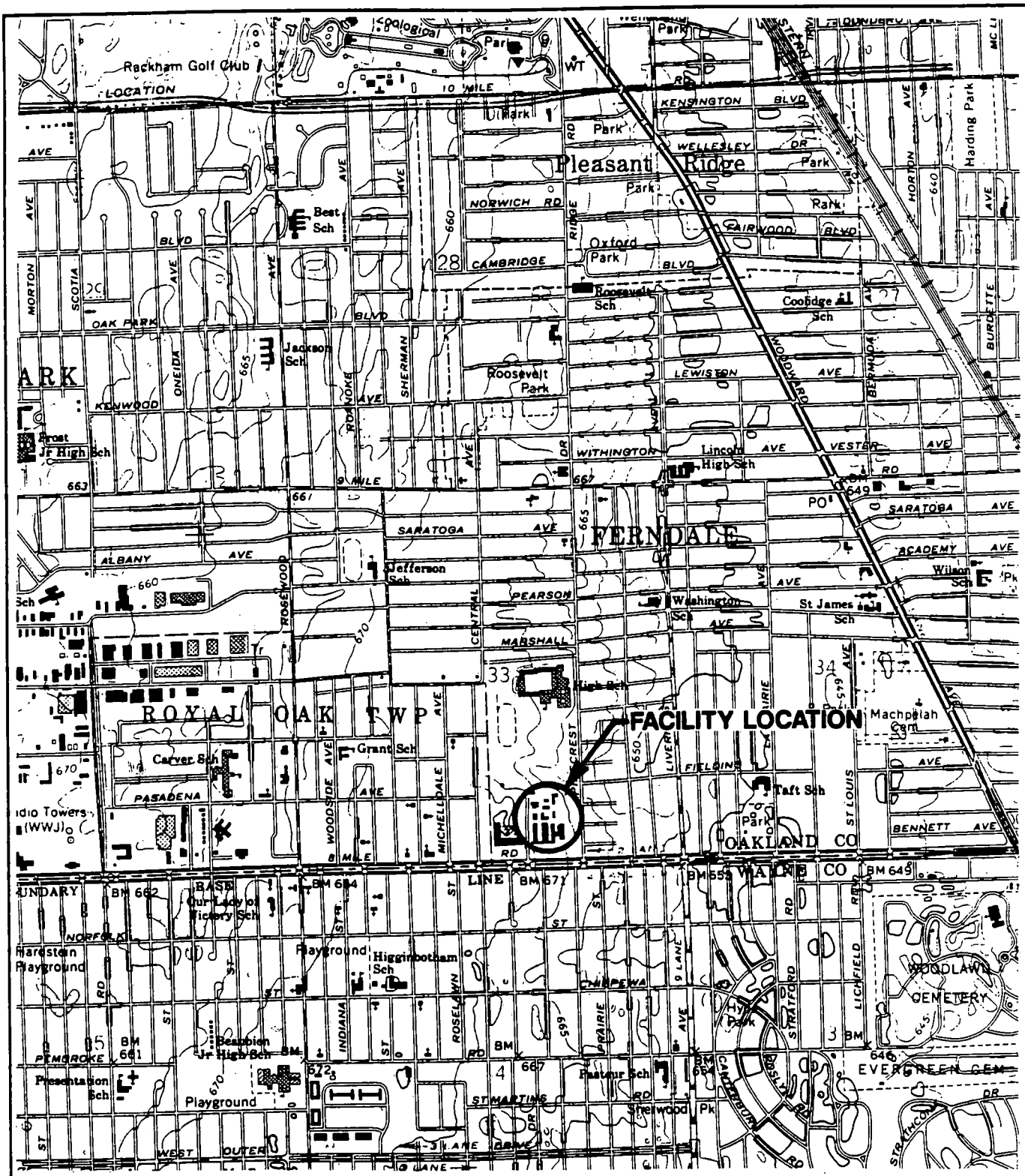
Access to the facility is restricted by a fence and a security guard system operating 24 hours a day, seven days a week. A logbook is also kept to monitor on-site personnel.

2.2 FACILITY OPERATIONS

The TCR facility is used for computer-aided design (CAD), computer-aided manufacturing (CAM), and product testing and analysis. The facility has operated at its current location since 1987 and employs about 110 people. The facility is composed of about 30 buildings, but not all are used.

TCR currently generates waste hydraulic and motor oil and waste mineral spirits (D001) from machining and research and development operations. These wastes are stored in three 500-gallon tanks in a Container and Tank Storage Area (CTSA) (SWMU 4). Waste hydraulic oil is also stored in the CTSA in drums ranging in size from 30 to 55 gallons.

Formerly, the facility was owned by Ethyl Corporation (Ethyl) for research and development. Ethyl owned the facility from 1936 to 1987. In 1983 the facility employed about 50 people. Ethyl conducted research on automotive fuel and lubricant additives, emissions controls, engine dynamometers, chassis dynamometers and road tests. Ethyl generated D001, D002, D003, F002, F004, and F005 wastes at the facility, which were managed in containers in SWMU 1, the former drum storage area (DSA) (Ethyl, 1980a; Ethyl 1980b).



T.C. REALTY, INC.
FERNDALE, MICHIGAN

FIGURE 1

FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

SOURCE: MODIFIED FROM USGS, 1986

While Ethyl owned the facility, they buried laboratory and pilot plant (testing plant) glassware and residues in shallow pits. These pits usually measured less than 1,000 square feet (10' x 10' x 10') in volume. Debris was placed in these pits (SWMUs 2 and 3) and were periodically covered with sand until full (Ethyl, 1985).

SWMUs (past and present) at the TCR facility are listed in Table 1. The facility layout, including SWMU locations, is included as Figure 2.

2.3 WASTE GENERATING PROCESSES

The primary waste streams at the TCR facility are waste hydraulic and waste motor oil and waste mineral spirits (D001). These wastes are generated from testing and analyzing automotive products. Wastes generated at the facility are discussed below and are summarized in Table 2.

TCR generates waste mineral spirits (D001) from cleaning machinery that tests automotive parts. This waste is stored in a 500-gallon tank in SWMU 4. The facility also generates waste hydraulic oil and waste motor oil from automotive testing. The two types of waste oil are stored in separate 500-gallon tanks in SWMU 4. Waste oils are also stored in 55-gallon drums in SWMU 4. All wastes are stored on site for less than 180 days.

Ethyl, the originator of the hazardous waste permit and former owners of the facility, also generated and stored hazardous waste on site. The facility's Part A hazardous waste permit listed codes for the container storage of 6,400 pounds of F002 waste; 5,600 pounds of F004 waste; and 21,000 pounds of F005 waste (Ethyl, 1980b). These wastes were also listed as ignitable (D001), corrosive (D002), reactive (D003), and toxic (D000) (Ethyl, 1980a). The wastes were generated by research and development activities at the facility. A RCRA Inspection Report by the MDNR dated August 4, 1982, noted that organophosphate wastes were also generated at the facility (MDNR, 1982). A RCRA Inspection by the MDNR dated January 19, 1984, revealed that Ethyl was generating about 1,800 gallons of waste oil and about 4,500 gallons of waste gasoline that year (MDNR, 1984). Information was not available about how these wastes were generated, how they were stored, or how they were disposed.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils, at the TCR facility.

TABLE 1
SOLID WASTE MANAGEMENT UNITS (SWMU)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit*	Status
1	Former Drum Storage Area (DSA)	Yes	Closed in 1984
2	Burial Pit Area 1	No	Inactive
3	Burial Pit Area 2	No	Inactive
4	Container and Tank Storage Area (CTSA)	No	Active, less than 180-day storage of hazardous waste

Note:

* A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

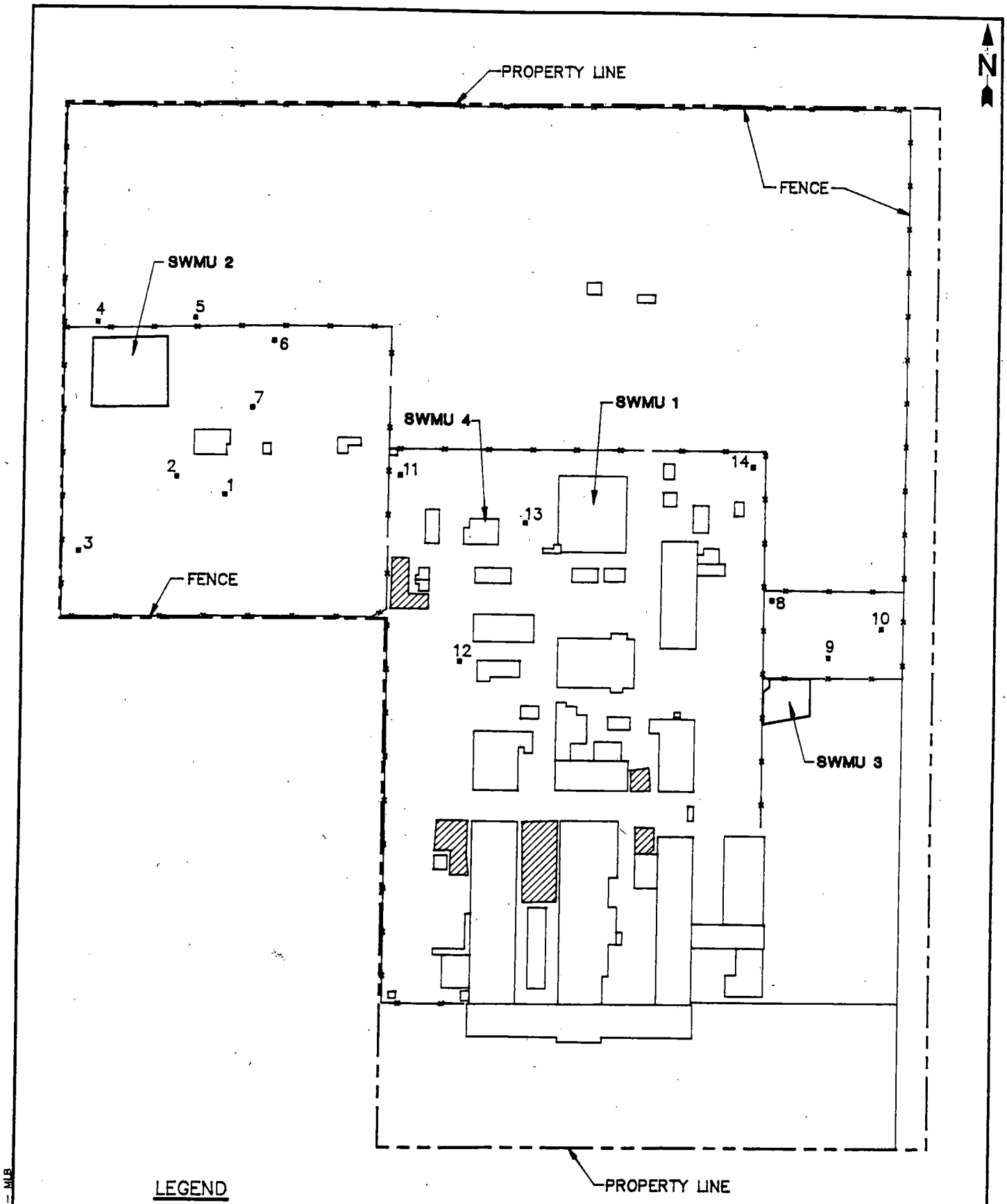
TABLE 2
SOLID WASTES

Waste/EPA Waste Code	Source	Primary Management Unit*
Mineral Spirits/D001	Machinery cleaning	SWMU 4
Waste Hydraulic Oil/NA**	Machining processes equipment	SWMU 4
Waste Motor Oil/NA	Automotive testing	SWMU 4

Notes:

* Primary management unit refers to a SWMU that currently manages or formerly managed the waste.

** Not applicable (NA) designates nonhazardous waste


PROPERTY LINE
N
FENCE
SWMU 2
4
5
6
7
2
1
3
FENCE
SWMU 4
SWMU 1
11
14
13
8
10
9
12
SWMU 3
PROPERTY LINE
LEGEND
8
MONITORING WELL
AREA OF EXCAVATED UNDERGROUND STORAGE TANKS
SOURCE: MODIFIED FROM T.C. REALTY SKETCH RECEIVED BY PRC ON FEBRUARY 4,1992
NOT TO SCALE
T.C. REALTY, INC.
FERNDALE, MICHIGAN
FIGURE 2
FACILITY LAYOUT
PRC ENVIRONMENTAL MANAGEMENT, INC.
REALTY1.DWG - 2/27/92 - MLB

No documented releases of hazardous material to the environment by TCR exist based on the PA file review and the VSI. However, the PA revealed releases to the environment by Ethyl, the former owner of the facility. In 1984, soil borings in the vicinity of Burial Pit Area 1 (SWMU 2) in the northwest corner of the facility revealed organic contamination in the soils (MDNR, 1986). No evidence of analytical samples is available to confirm this contamination. Ground-water samples from six monitoring wells installed around the most recently used and identified burial pit (SWMU 2) showed 1 to 5 micrograms per liter (µg/L) of toluene and chloroform, and 40 to 400 µg/l of tetrahydrofuran (MDNR, 1986). Ethyl believes that the toluene and chloroform are at concentrations too low to pose a threat to the environment. Ethyl also claims that the tetrahydrofuran is from pipe glue used in monitoring well construction at the facility (Ethyl, 1986b). Trace organic contamination was also noted in Monitoring Wells 8, 9, 10, and 14 near the east side of the facility and in the area of SWMU 3. Ethyl states that this contamination is minor and will evaporate from the ground water (Ethyl, 1986b).

In the mid-1980s, Ethyl excavated 73 underground storage tanks (USTs) ranging in size from 500 to 10,000 gallons (MDNR, 1986a). These tanks were used to store gasoline upon which research and development was being performed. Soil gas samples in the UST areas revealed no contamination and the Ferndale Fire Department monitored the excavation (Ethyl, 1986b).

Mr. Tyler Tennent, attorney for TCR, stated during the VSI that Ethyl has agreed to remediate the facility. The next round of sampling for the 14 existing monitoring wells is scheduled for completion before the end of March 1992. As a result of the on-site contamination by toluene, chloroform, tetrahydrofuran, and burial pits, the facility has been given a high priority for further action by the MDNR. Also, Mr. Tennent informed PRC inspectors that the facility is on the Michigan Priority List. This is a list of sites designated by the state of Michigan that require further study or action. TCR wishes to get the facility remediated so it can be removed from this list.

2.5 REGULATORY HISTORY

Ethyl, the former owner of the facility, submitted a notification of hazardous waste activity to EPA on August 6, 1980 (Ethyl, 1980a). The facility submitted a RCRA Part A permit application on November 14, 1980. This application listed container storage (S01) of 5,000 gallons of hazardous waste (Ethyl, 1980b). The application listed the following waste codes (and capacities): F002 (6,400 pounds); F004 (5,600 pounds); and F005 (21,000 pounds) (Ethyl, 1980b). Ethyl submitted a closure plan for its hazardous waste storage area (SWMU 1) on June 3, 1983. This plan was approved on October 11, 1983 (EPA, 1983). The closure was completed and

certified on February 14, 1984 (EPA, 1984). No activity by Ethyl occurred at the facility after closure; therefore, they did not file for an EPA hazardous waste activity status after this date.

Ethyl owned the facility from 1936 to 1987. On June 1, 1987, Ethyl donated the facility to the National Counsel for Community Development (NCCD), a charitable organization; however, Ethyl agreed to remain responsible for any remedial action needed at the facility. CMI Tech Center, Inc. (CMI), purchased the facility from the NCCD on December 3, 1987. CMI has changed its name to TCR (Clark, Klein, and Beaumont, 1992). Ethyl and TCR have installed monitoring wells at the facility to monitor possible ground-water contamination and contaminant migration.

TCR, the current owner of the facility, is classified as a small-quantity generator of hazardous waste. Ethyl and TCR do not operate under any air permits or National Pollutant Discharge Elimination System (NPDES) permits.

2.6 ENVIRONMENTAL SETTING

This section describes the climate, flood plain and surface water, geology and soils, and ground water in the vicinity of the TCR facility.

2.6.1 Climate

The climate in Oakland County is influenced by nearby Lake St. Clair. The average daily temperature is 48.5°F. The lowest average daily temperature is 16.1°F in January. The highest average daily temperature is 83.1°F in July (DOC, 1968).

The total annual precipitation for the county is 32 inches (DOC, 1968). The mean annual lake evaporation for the area is about 30 inches (DOC, 1968). The 1-year, 24-hour maximum rainfall is about 2.2 inches (DOC, 1963). The prevailing wind is from the southwest. The average wind speed is 10.3 miles per hour (NOAA, 1989).

2.6.2 Flood Plain and Surface Water

The TCR facility is not located in a 100-year flood plain (FEMA, 1990). The nearest surface water body, a small pond in a cemetery, is about 1 mile southeast of the facility and is apparently not used for recreation or any other purpose. No major surface water bodies exist in the vicinity of the TCR facility.

Surface water drainage at the facility is probably minimal because of the area's flat topography. The nearest storm sewer is located along the eastern boundary of the facility. This sewer ultimately discharges to the Detroit River. TCR does not operate under any storm water or wastewater discharge permits.

2.6.3 Geology and Soils

The geology and soils beneath the TCR facility consist of unconsolidated deposits overlying bedrock. The unconsolidated deposits are water-laid moraines consisting of sand and clay (WMU, 1981). Boring logs from 14 on-site monitoring wells show that a sand unit extends from ground surface to about 30 feet below ground surface. Below the sand unit, a clay unit is encountered. In 1941, Ethyl attempted to drill a water well on site. During drilling, the clay unit was encountered from 23 feet to 150 feet below ground surface. Mixed clay and shale was then encountered to 561 feet below ground surface (Ethyl, 1985).

Bedrock in the vicinity of the TCR facility is encountered at about 150 feet below ground surface. The uppermost bedrock units encountered are Mississippian Period Berea Sandstone and Bedford Shale, and in some instances Devonian Period Antrium Shale. The Berea Sandstone, Bedford Shale, and Antrium Shale are about 30, 50, and 70 feet thick, respectively, near the facility (WMU, 1981).

2.6.4 Ground Water

Ground water beneath the TCR facility is approximately 10 feet below ground surface in the sand unit. Measurements of ground-water levels in the 14 on-site monitoring wells indicate that ground water flows east to southeast below the facility. Ground water may be intercepted by a stormsewer system along the eastern boundary of the facility because of the fact that ground-water flow gradients increase towards the facility's eastern boundary. The sewer into which ground water may be discharging flows into the Twelve Town System designed to drain both sides of Pinecrest Avenue. This sewer ultimately discharges to the Detroit River. Estimates of the hydraulic gradient of the water table beneath the facility range from 0.0042 to 0.01. Hydraulic conductivity values for the sand unit range from 1.35×10^{-5} to 3.2×10^{-5} centimeters per second (cm/s) (Ethyl, 1986b).

The Geological Survey Division of the MDNR searched and found that its files contained no well log data or other information on any water wells within 3 miles of the facility. The MDNR also concluded that it is very unlikely an aquifer exists near the facility (Ethyl, 1986b).

Ground-water contamination has been noted in some of the on-site monitoring wells (see Figure 2 for on-site monitoring well locations). Chloroform and toluene were noted by Burial Pit Area 1. Concentrations of these constituents ranged from 1 to 5 parts per billion (ppb). Ethyl stated that it will be difficult to determine if chloroform is from a local source or at background concentrations because, according to Ethyl, even Detroit's municipal water supply contains about 30 ppb of chloroform (Ethyl, 1986a). Ethyl also felt that the toluene did not pose a threat to the environment because it was only found in one well, and because ground water is not used in the area as a source of drinking water (Ethyl, 1986b). Traces of organic contamination were also observed in Monitoring Wells 8, 9, 10, and 14. This contamination is most likely caused by past burial pit disposal by Ethyl in the area (Ethyl, 1986b). Ethyl states that the volatile and slightly soluble hydrocarbons will evaporate to the atmosphere from the unconfined ground water in the sand unit and therefore pose little threat to the environment (Ethyl, 1986b).

2.7 RECEPTORS

The TCR facility occupies 34 acres in an area of mixed use in Ferndale, Michigan. Ferndale has a population of 25,084 (PRC, 1992).

The facility is bordered on the north by a wooded area and Ferndale High School; on the west by Goodwill Printing and private residences; on the south by All American Car Rental, the Detroit Store Fixture Co., General Type and Supply, A1 Transmissions, and Tuffy Service Center; and on the east by a Citgo gas station and private residences. The nearest school, Ferndale High School, is less than 1 mile north of the facility. Facility access is controlled by a security fence, a 24-hour, 7-day-a-week security guard system, and a logbook.

The nearest surface water body is a small pond about 1 mile southeast of the facility and does not appear to have any uses. No major surface water bodies exist within 2 miles of the facility.

Ground water is not used as a source of drinking water. There are no ground-water wells within 2 miles of the facility. No sensitive environments are located on site, and no wetlands exist within 4 miles of the facility. Palmer Park is 1.5 miles southeast of the facility, and a city park is 2 miles northwest of the TCR facility.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the four SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC observations. Figure 2 shows the SWMU locations.

SWMU 1	**Former Drum Storage Area (DSA)**
Unit Description:	The former DSA is outside near the middle of the facility property. The unit was used to store F002, F004, and F005 hazardous wastes in 55-gallon drums. The unit is a concrete pad which measures 95 by 130 feet (see Photograph No. 1).
Date of Startup:	The unit began operating in 1936.
Date of Closure:	The unit has been inactive since 1984, when it was certified closed. (EPA, 1984).
Wastes Managed:	This unit managed F002, F004, and F005 hazardous wastes in containers. It is not known how these wastes were disposed; however, all wastes were removed before closure was approved and certified.
Release Controls:	This unit is outside made of concrete and is not bermed.
History of Documented Releases:	No releases from this SWMU have been documented.
Observations:	This unit did not contain any hazardous or nonhazardous wastes at the time of the VSI.
SWMU 2	**Burial Pit Area 1**
Unit Description:	Burial Pit Area 1 (11 pits total) is in a wooded area in the northwest corner of the facility (see Photograph No. 2). Each pit was usually 10 by 10 feet in area and less than 10 feet deep.

	Debris in the pits was periodically covered with sand until the pit was full.
Date of Startup:	These pits were first used in 1963 (Ethyl, 1985).
Date of Closure:	These pits have been inactive since the early 1980s (Ethyl, 1985).
Wastes Managed:	Laboratory and pilot plant glassware and residues were buried in the pits (Ethyl, 1985).
Release Controls:	There are no release controls for these pits.
History of Documented Releases:	Soil borings in 1984 revealed soil contamination around the most recently dug pit. Also, monitoring well ground-water samples from around the most recent burial pit showed 1 to 5 μg/L of toluene and chloroform, and 40 to 400 μg/L of tetrahydrofuran. Ethyl believes that the toluene and chloroform are at too low a concentration to pose a threat to the environment, and that the tetrahydrofuran is from pipe glue used to install the wells.
Observations:	Snow cover at the time of the VSI prevented close inspection of the pits. Natural material excavated to form the pits was evident (see Photograph No. 2).
SWMU 3	**Burial Pit Area 2**
Unit Description:	Additional burial pits were excavated in the area now covered by the northwest corner of the parking lot on the east side of the facility. There is no indication of the size of these pits. Ethyl describes the pits as small, manually dug holes located between trees. Neither Ethyl nor TCR has any records of what these burial pits contained nor are they marked. PRC and TCR facility representatives had no knowledge of these pits during the VSI. Evidence of these pits were revealed in Ethyl documents collected by TCR and sent to PRC after the VSI.

Date of Startup:	Ethyl began using these pits in 1939 (Ethyl, 1985).
Date of Closure:	These pits have not been used since 1955 (Ethyl, 1985).
Wastes Managed:	Laboratory and pilot plant glassware and residues were buried in Burial Pit Area 2.
Release Controls:	There are no release controls for these pits.
History of Documented Releases:	Traces of organic contamination were observed in ground water samples from Monitoring Wells 8, 9, 10, and 14 in this area (Ethyl, 1986b).
Observations:	Because these burial pits were discovered after the VSI, they were not inspected.
SWMU 4	**Container and Tank Storage Area (CTSA)**
Unit Description:	The CTSA is outdoors near the middle of the facility property. The CTSA is used to store wastes for disposal. The unit measures approximately 30 by 50 feet and consists of a concrete floor and curb. The curb encloses both 55-gallon drums and three 500-gallon tanks in the CTSA. The unit is covered with a roof and enclosed in a chain-link fence with a gate (see Photograph No. 3).
Date of Startup:	This unit began operating around 1987.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages waste hydraulic and waste motor oil and waste mineral spirits (D001). Wastes in this unit are ultimately picked up for disposal.
Release Controls:	This unit has a concrete floor and curbing.

History of Documented Releases:	No releases from this SWMU have been documented.
Observations:	The unit contained full and empty product drums at the time of the VSI. The unit also contained 11 drums, ranging in size from 30 to 55 gallons, of waste oil, and three 500-gallon aboveground storage tanks containing waste hydraulic oil, waste motor oil, and waste mineral spirits (D001). There were no cracks apparent in the concrete floor and curbing.

4.0 AREAS OF CONCERN

PRC identified no AOCs during the PA/VSI.

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Western Michigan University (WMU), 1981. Hydrogeologic Atlas of Michigan, Department of Geology, Kalamazoo, Michigan.

ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	MID041803123

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)*	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER				
T.C. Realty Inc. (TCR)	1600 W. Eight Mile Road				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Ferndale	MI	48220	Oakland	125	
09 COORDINATES: LATITUDE 42°26'47"N	**LONGITUDE** 083°08'50"W				

10 DIRECTIONS TO SITE *(Starting from nearest public road)*

Route 10 north to 8 Mile Road; east on 8 Mile Road for about 2.8 miles; facility is on north side of 8 Mile Road

III. RESPONSIBLE PARTIES

01 OWNER *(if known)*	02 STREET *(Business, mailing residential)*		
TCR	1600 W. Eight Mile Road		
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**
Ferndale	MI	48220	(313) 399-9600
07 OPERATOR *(If known and different from owner)*	**08 STREET** *(Business, mailing, residential)*		
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**

13 TYPE OF OWNERSHIP *(Check one)*

■ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency Name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*

■ A. RCRA 3010 DATE RECEIVED: 08/06/80 (by Ethyl Corporation) ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: ___/___/___ ■ C. NONE

MONTH DAY YEAR

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY *(Check all that apply)*

■ YES DATE 02/04/92 ☐ NO

☐ A. EPA ■ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): PRC Environmental Management, Inc.

02 SITE STATUS *(Check one)*

■ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

1940 | Present (BEGINNING YEAR | ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Ignitables (D001), corrosives (D002, reactives (D003), halogenated solvents (F002), nonhalogenated solvents (F004 and F005), chloroform (K009 or K010), tetrahydrofuran (P110), waste oil, and waste gas

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Potential hazard to the environment exists because of soil and ground-water contamination. This contamination is the result of operations by Ethyl Corporation, the previous owner of the facility.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ■ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*		03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA Region 5		(312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
Kevin Schnoes		PRC-EMI	(312) 856-8700	02/19/92 (MONTH DAY YEAR)

ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY

T.C. Realty, Inc. (TCR)
Ferndale, Michigan
MID 041 803 123

Date:	February 4, 1992
Facility Representatives:	Jeff Norton, Environmental Engineer, TCR Diane Zekind, Director - Advance Planning and Administration, TCR Tyler Tennent, Attorney from Clark, Klein and Beaumont, representing TCR
Inspection Team:	Kevin Schnoes, PRC Environmental Management, Inc. (PRC) Deb Harrity, PRC
Photographer:	Kevin Schnoes
Weather Conditions:	Calm, overcast, temperature 30°F
Summary of Activities:	The visual site inspection (VSI) began at 10:00 a.m. with an introductory meeting. The inspection team discussed the purpose of the VSI and agenda for the visit. Facility representatives then discussed the TCR facility's past and present operations, solid wastes generated, and release history. TCR representatives also discussed information they had concerning Ethyl Corporation, the previous owner of the facility. Most of the information was exchanged on a question-and-answer basis. TCR representatives provided the inspection team with copies of documents requested. The VSI tour began at 10:45 a.m. The VSI tour included inspection of three on-site SWMUs. Burial Pits 2 (SWMU 3) was not inspected during the VSI because neither PRC or TCR representatives had any knowledge of this SWMU at the time of the VSI. The SWMUs inspected were the current Container and Tank Storage Area, Ethyl Corporation's Former Drum Storage Area, and the Burial Pit Area 1. The visit also included an inspection of areas that used to contain underground storage tanks (UST). Photographs of SWMUs 1, 2, and 4 were taken. However, SWMU 3 was not photographed. The tour concluded at 11:30 a.m., after which the inspection team held an exit meeting with TCR representatives. The VSI was completed and the inspection team left the facility at 11:55 a.m.

Photograph No. 1 Location: SWMU 1
Orientation: North Date: February 4, 1992
Description: Former drum storage area (DSA) used by Ethyl Corporation (Ethyl)

Photograph No. 2 Location: SWMU 2
Orientation: Northwest Date: February 4, 1992
Description: Old burial pit at northwest corner of the facility in Burial Pit Area 1 used by Ethyl

Photograph No. 3 Location: SWMU 4
Orientation: North Date: February 4, 1992
Description: Container and Tank Storage Area (CTSA) used by TCR; currently contains full and empty product drums in addition to drums and tanks containing waste oil and waste mineral spirits

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

(92)

Jim - Sr Reg Spec
Rich - ~~Sr~~ Health, Safety, & Env. Mngr.
Matt - Safety

2/5/92 Sunny, 40's (93)

0920 Arrive @ Diversey-Wyandotte
PRC - Kevin Schnoes, Deb Harrity
Diversey-Wyandotte - Matt Pucinski, Rich ~~Labarte~~ McInnis
Jim Labarte

Purpose of ~~X~~ KS PA/VSI explained to Diversey-Wyandotte

Sold by BASF 10 years ago; facility will be closing in about 2-3 years

← Facility only produces off-spec wastes now.

Make cleaning, sanitizing, & process chemicals for dairy, food, ag, institutional, & laundry → made for customers specifications → ship all different sizes.

↓ ~~Waste list~~

① Non-haz petroleum distillate → by product

K. Schnoes 2/5/92

(94)

(5)(3)(4)(5) Lab solvents (Lab Pack)

(6) Paint stripper → discontinued product

(7) Byproducts from batch } same

(8) Off-spec waste from batch } operation

(9) Discontinued raw material KS

(7) KS Off-spec product → Hydrogen peroxide

(10)(11) Discontinued raw material

(12) Lab pack → from lab clean-out

(11) Off-spec Alkaline machine dishwashing detergent

(13) Off-spec Spectrum HDS

(14)(16) Waste oil

(15) Lab wastes

Waste Storage Areas

✓ Accumulated in 5 gallon buckets in labs

K. Schroes 2/5/92

(95)

✓ Storage area on ~~second~~ 3rd floor for off spec wastes KS

✓ Waste oil stored in 2500 gallon storage tank

✓ WW Pre-treatment system → for reactive WW & cooling water, most generated in liquid dept. collected in pits → pumped to pretreatment pit & neutralized, 10,000 gal tank in powder dept

NPDES & Air permits → will be sent at later date)
for dust control system

No USTs or PCBs

Spill notice → 6 violations to WW discharge permits →

K. Schroes 2/5/92

(96)

3 plt violations

500 ft x 600 ft

Fencing around site ↑

~300,000 ft² → building

~70 employees, 2 shifts

Cameras, off hours security guard

1896 - building built

10:30 VSI → Diversey-Wyandotte will take their own photos @ same locations as PRC

Photo 1
Lab area

Photo 2
Dust collector (3rd floor)

Photo 3 → about 15'x20'
Container storage area (3rd floor)
empty → operating since mid 1980s

Photo 4 (3rd floor)
Old CSA → probably about 20'x20'

K. Schroer 2/5/92

(97)

Photo 5 (1st floor) mid 1980's
Non-haz waste oil tank
Bay door → oil could leak under, some curbing, drain for Pit B nearby

Photo 6 (1st floor)
WW Treatment Pit B → 500 gallons → will be sent
capacities of other pits

Photo 7 (1st floor)
Waste oil drum 30 gallon
3/4 full
No leak evident

Photo 8 (in operation since 1978)
Waste Water Neutralization Pit

Photo 9 (4th floor) ~~dust~~ KS
10,000 gallon tank → part of WW Treat system for powder area

K. Schroer 2/5/92

Material in tanks from washing out powder area. Tank is used to collect waste water so it does not all go to treatment system @ once
No containment
Hole in floor
just started using this tank for treatment system

1120 End VSP, start wrap-up meeting

1148 - Site area reconnaissance:
East: BASF Corporation
West: Residential Community
North: Residential Area
J.C. Manufacturing

South: Mixed Commercial and residential and Polonas Restaurant DWC Printing