

Florida Department of Environmental Regulation

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Lawton Chiles, Governor

Carol M. Browner, Secretary

June 24, 1991

Mr. James H. Scarbrough, P.E., Chief
Waste Management Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: RCRA Facility Assessment; FLD984171165 Safety Kleen - Sanford,
FLD984171694 Safety Kleen - Medley

Dear Mr. Scarbrough:

In accordance with our Memorandum of Agreement and the Workplan, enclosed are the copies of the RFA's for the Sanford and Medley Safety Kleen facilities. Our recommendation for these two sites is to identify the proposed units as SWMUs with no further action required.

Should you have any questions, please call me or John Griffin of my staff at (904) 488-0300.

Sincerely,

Satish Kastury
Environmental Administrator
Hazardous Waste Regulation

SK/do

cc: Bob Kukleski, DER/West Palm Beach
Bob Snyder, DER/Orlando

RCRA FACILITY ASSESSMENT

for

**SAFETY KLEEN CORPORATION
Northstar Business Park Lot 10
Sanford, Florida 32771**

FLD 984 171 165

Prepared by: Florida Department of Environmental Regulation

Site Visit: John E. Griffin

Report Date

March 1991

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I. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) expanded the regulatory authority under the Resource Conservation and Recovery Act (RCRA) to allow for a RCRA corrective action program to clean up releases of hazardous waste or hazardous constituents from Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs). This corrective action program applies to all facilities that have obtained a RCRA Part B permit or are in the process of obtaining a RCRA Part B permit.

The RCRA corrective action program consists of three phases. The first phase involves the RCRA Facility Assessment (RFA) to identify releases or potential releases requiring further investigation. During the second phase, the extent of releases, if any, are fully characterized under the RCRA Facility Investigation (RFI). The Corrective Measure Study (CMS) is the final phase to determine the need for and extent of remedial measures. This step includes the selection and implementation of appropriate remedies for all releases identified. This report covers only the RFA portion of the corrective action program.

The RFA is subdivided into three stages and this includes a Preliminary Review (PR) which focuses primarily on evaluating any existing information about a facility. Based on this existing information a preliminary list of SWMUs and AOCs is determined. Following this review is a Visual Site Inspection (VSI) which entails a site visit to collect visual information and to obtain any additional evidences of releases from SWMUs or AOCs. If necessary, a Sampling Visit (SV) will be performed by obtaining sampling and field data to further evaluate any releases of hazardous waste or hazardous constituents to the environment. To summarize, the purpose of these three stages of this report is identify to SWMUs and AOCs and to assess the release potential of any hazardous constituent from these units.

This report summarizes information found during the PR of material from the State of Florida Department of Environmental Regulation (FDER) files and the VSI conducted by FDER staff at the proposed site of the Safety Kleen facility on February 18, 1991. According to the Construction Permit Application, Safety Kleen plans to operate a hazardous waste storage facility at the site. Waste materials would be stored in either tanks or containers for transport to off-site recycling or disposal facilities. There is no planned on-site disposal. There were two Solid Waste Management Units identified at the site during the PR and VSI. The two Solid Waste Management Units listed in this document are for the proposed RCRA storage units. No previous releases were reported in the file data or observed during the VSI.

A. Background

The Florida Department of Environmental Regulation (FDER) was directed under an agreement with the United States Environmental Protection Agency (EPA) to conduct a RCRA Facility Assessment (RFA) at the proposed Safety Kleen Facility in Sanford, Florida. The purpose of an RFA is to:

- (1) Identify and gather information on Solid Waste Management Units (SWMUs) or Areas of Concerns (AOCs) at RCRA facilities;
- (2) Evaluate SWMUs and AOCs for releases of hazardous waste hazardous constituents; and
- (3) Make determinations regarding releases of concern and further actions or screen from further investigation those SWMUs or AOCs which do not pose a threat to human health or the environment.

B. Facility History

The proposed site is located in Seminole County near Sanford, Florida approximately 1 mile east of Interstate 4 and one-quarter mile south of Route 46. Smith Canal borders the western and southern limits of the property. The site is currently zoned RI-1 (restricted industrial).

On October 30, 1989, Safety Kleen submitted an application to FDER for a Hazardous Waste Construction Permit. An addendum to this application was submitted by Safety Kleen on December 14, 1989. The FDER issued a first notice of deficiency on February 16, 1990. Safety Kleen responded to the first notice of deficiency on March 21, 1990. The FDER then issued a second notice of deficiency on May 14, 1990. Safety Kleen responded to the second notice of deficiency on June 18, 1990. The FDER considered the application complete and pursuant to Rule 17-730.220(6)(a) FAC, the FDER notified the local government authorities that the application was complete.

C. File Search and VSI

The file search was performed at the FDER during the first week of February. The file search consisted of a desk top study of the RCRA files and a review of the files prepared by the Florida State Board of Conservation, Division of Geology. The purpose of the file search was to compile a list of SWMUs and AOCs including additional information about the proposed facility and a geology of the site.

The VSI was conducted on February 18, 1991 by John Griffin of the FDER. Another representative of the FDER who participated in the VSI was Bob Snyder. Two representatives of the facility accompanied FDER and they were Ray Stewart and Paul Johnson. There were no EPA representatives present. The purpose of the VSI was to verify the findings of the file review, evaluate any releases of hazardous waste or hazardous constituents, SWMUs and AOCs and to collect any information necessary to complete this report.

D. Waste Generation

According to the Construction Permit Application, Safety Kleen plans to operate a hazardous waste storage facility at the proposed site. A site plan of the proposed facility is provided in Figure 1. The facility will have the capacity to store wastes in containers and tanks.

1. Container Storage Facility:

Safety Kleen would operate the storage facility within a building specifically designed for hazardous waste management. The proposed container storage building would have a drum storage capacity of 6,912 gallons. The dimensions of the building will be 80 feet wide by 50 feet long. All waste materials would be stored and subsequently sent to a reclaimer. The wastes that can not be effectively reclaimed will be sent to a licensed facility for disposal. All drummed waste materials will be stored in Department of Transportation (DOT) acceptable containers in such a manner that detrimental co-mingling will be prevented. The containers will store mineral spirit dumpster sediments (D001/D006/D008), immersion cleaner (F002/F004), dry cleaning waste (F002), and paint waste (F003/F005/D001/D006/D007/D008) in various size drums.

2. Tank Storage Facility:

A tank farm area is planned to contain all bulk storage tanks. This tank farm will include six 20,000 gallon aboveground steel tanks. One tank is designated to store used mineral spirits (D001/D006/D008), another tank will be used to store mineral spirit product, three tanks will store non-hazardous waste oil, and one tank will be storing perchloroethylene product. All tanks are vented at the top to prevent pressure buildup. All tanks are underlain by a 55 feet wide by 39 feet long, six-inch concrete slab surrounded by a 2 foot concrete dike. The dike will be sealed with a chemical resistant coating.

E. Environmental and Demographic Setting

1. Population:

The proposed Safety Kleen site is located in Central Florida, in Seminole County near Sanford, Florida. It is approximately 1 mile east of Interstate 4 and one-quarter mile south of Route 46. Smith Canal borders the western and southern limits of the property. The site is currently zoned RI-1 (restricted industrial). The estimated population in 1988 for Seminole County is 267,108. The largest populated city in Seminole County is Altamonte Springs with an estimated population in 1988 of 35,892. Sanford, the county seat, is the second most populous city with a 1988 estimated population of 29,288 (References 1, 7).

2. Climate:

The climate in Seminole County is subtropical. The average annual precipitation at Sanford is 52.89 inches. About 70 percent of the precipitation falls during the months of May through October. The mean annual temperature at Sanford is 72.2 °F. The lowest mean monthly temperature is 61.4 °F in January and the highest mean monthly temperature is 82.2 °F in August. The average growing season is about 330 days. (Reference 8).

3. Topography and Drainage:

The topography of Seminole County may be divided into two types: a flat lowland, characteristic of the area adjacent to Lake Monroe; and hilly uplands, characteristic of the area in the vicinity of Lake Mary. The land-surface attitude of the level lowlands ranges from 5 feet above sea level near the St. Johns River to about 30 feet above sea level where the lowlands merge into the hilly uplands. The land surface attitude of the hilly uplands ranges from about 30 feet above sea level where the area adjoins the level lowlands to about 105 feet above sea level in the vicinity of Altamonte Springs.

The level lowlands and lower areas of the hilly uplands drain into the St. Johns River and its tributaries, which include Lake Jessup, the Wekiva River, and the Econlockhatchee River. The remainder of the hilly uplands drain into closed depressions. Many of these depressions are probably drained through permeable material into the underlying aquifers. (Reference 8).

4. Geology:

A generalized geologic cross-section is shown in Figure 4. The geology of the region is summarized in Reference 8 as follows:

The uppermost portion of the geologic deposits consist of undifferentiated deposits from the Pleistocene and Recent age and late Miocene or Pliocene age. The Pleistocene and Recent age deposits consist of clear to frosted, fine to coarse sand. In areas near the St. Johns River, the deposits also include some shells and thin beds of clay. The Pliocene or late Miocene age deposits consist of sticky blue clay and shell beds.

Underlying these deposits is primarily the Hawthorn Formation from the Miocene age. The Hawthorn Formation in Seminole County consists of beds of blue to grey calcereous clay, alternating with beds of cream to grey sandy limestone containing numerous grains of black to cream phosphate rock and fragments of chert. Lying below parts of the Hawthorn Formation is the Ocala Group from the Eocene age. The Ocala Group consists of white-cream to tan-gray soft to hard, granular, porous foraminiferal marine limestones. The altitude of the top of the Ocala Group ranges from near sea level near the town of Lake Mary to about 113 feet below sea level near the village of Lake Monroe.

The Avon Park Limestone also of the Eocene age underlies the Ocala Group. The Avon Park Limestone consists of layers of light gray to brown, soft to hard, porous to dense, granular to chalky limestone. The Avon Park Limestone also yields more groundwater in Seminole County than any other formation. Below the Avon Park Limestone lies the Lake City Limestone also of the Eocene age. The Lake City Limestone consists of alternating layers of hard, brown, porous crystalline dolomite and hard, cream to tan chalky limestone and dolomitic limestone.

5. Groundwater:

The hydrology of the region is summarized in Reference 8 as follows:

Groundwater in Seminole County occurs in two aquifers. The surficial aquifer and the Floridan aquifer. The surficial aquifer consist of surficial sands of Pleistocene and Recent age primarily under non-artesian conditions. This aquifer is replenished by local precipitation. Water from this aquifer contains about 50 ppm of dissolved solids but sometimes can contain an excessive amount of iron. The principal source of water in Seminole County are deposits of sand and shell of the Pliocene and late Miocene Age, the permeable parts of the Hawthorn Formation, and limestone formations of middle and late Eocene Age. This aquifer is called the Floridan. The general flow of groundwater in the Floridan in Seminole County is to the northeast direction. The amount of dissolved mineral matter from the Floridan ranges from low in the recharge areas of the hilly uplands to high in the discharge area of the lowlands.

F. Exposure Potential

1. Target Populations: Since this area is currently unpopulated and is planned to be used for industrial purposes, the threat to human health is very low. The health risk on animal populations is unknown, but is also expected to be low.
2. Receptor Information: Since there are no waste operations at this facility, the release potential is nonexistent at this time.

III. SWMU AND AOCs DESCRIPTIONS

See Figure 3 the Solid Waste Management Unit Identification Summary. The Appendix consists of the VSI photo log.

IV. SUMMARY AND RECOMMENDATIONS

Two Solid Waste Management Units exist at this site and these units are the proposed container and tank storage units. No further action should be taken at this time.

V. LIST OF REFERENCES

1. Safety Kleen Corporation - Construction Permit Application dated October 30, 1989.
2. FDER First Notice of Deficiency dated February 12, 1990.
3. Safety Kleen Corporation - Response to FDER First Notice of Deficiency dated March 21, 1990.
4. FDER Second Notice of Deficiency dated May 14, 1990.
5. Safety Kleen Corporation - Response to FDER Second Notice of Deficiency dated June 18, 1990.
6. FDER notification to local government authorities that application is complete dated October 1, 1990.
7. 1989 Florida Statistical Abstract.
8. Florida Geological Survey, Reprint of Investigations NO. 27 by J.T. Barradough.

VI. FIGURES




FIGURE 2

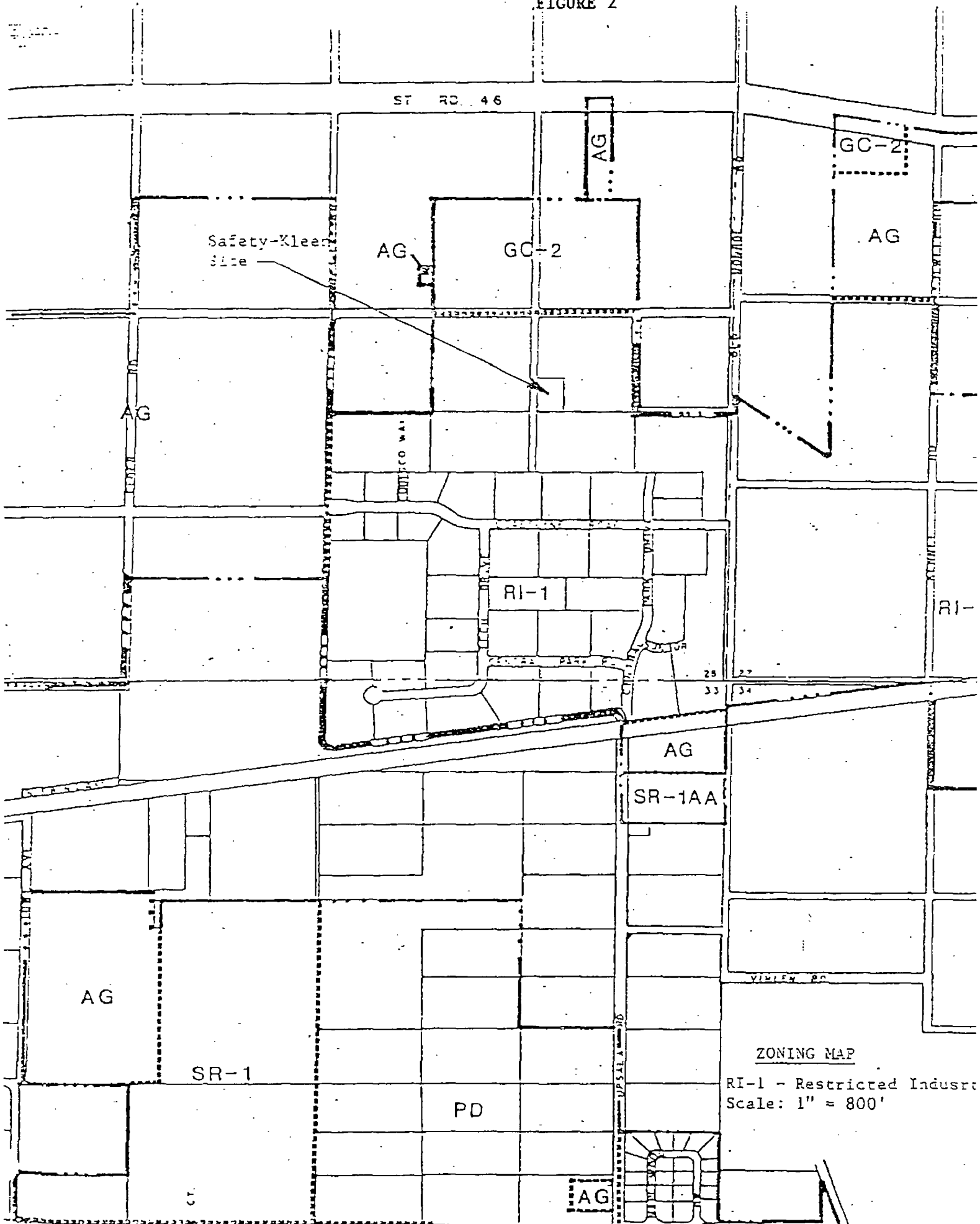
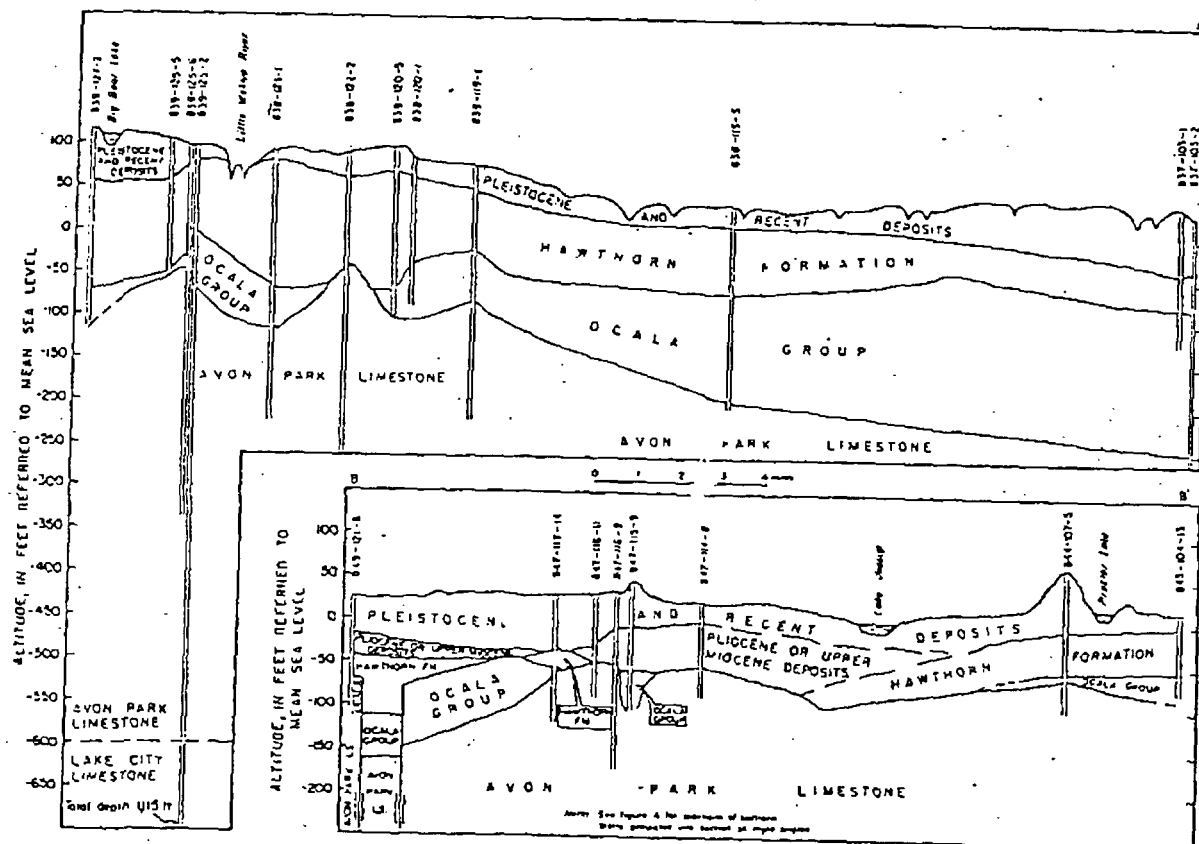


FIGURE 3

[illegible]

Age	Unit	Thickness (feet)	Physical Character	Water-Bearing Character
Pleistocene and Recent	Undifferentiated deposits	10-75	Sand, containing some shells and clay.	Furnishes water to shallow wells equipped with screens. Usually adequate for lawn irrigation, domestic and stock use. The water is softer and more corrosive than water from the Miocene and Eocene deposits.
to Miocene or Pliocene	Undifferentiated deposits	0-83	Sticky blue clay and shell beds.	The shell beds yield small to moderate quantities of water to wells. Water from wells that tap these beds flow in most of the lower lands. The clay beds confine water under artesian pressure.
Oligocene	Hawthorn Formation	0-150	Blue to gray calcareous clay; cream to gray sandy limestone; containing grains of cream to black phosphate rock and fragments of chert.	The beds of sandy limestone yield substantial quantities of water to wells drilled for irrigation or domestic uses. The clay beds serve as an aquiclude.
Oligocene	Ocala Group	0-190	Cream to tan-gray, soft to hard, granular, porous foraminiferal marine limestone.	The second most productive formation in the county. The Ocala furnishes large quantities of water to many wells which tap it only and contributes considerable water to wells that tap both overlying or underlying formations also. It is the first limestone penetrated in most of the county.
Oligocene	Avon Park Limestone	500±	Light-gray to brown, soft to hard, porous to dense, granular to chalky limestone and dolomitic limestone.	The most productive formation in Seminole County. Yields water to all the deeper wells in the county and is the only part of the Floridan aquifer tapped by many wells. Very few wells draw water from the lower part of the Avon Park and very substantial additional supplies could be developed from that part of the formation.
Oligocene	Lake City	Over 400	Hard, brown, porous, crystalline dolomite; hard, cream to tan chalky limestone and dolomitic limestone.	A highly productive formation in the southwestern part of the county but tapped by only a few wells. No information is available about the hydraulic properties or the chemical quality of the water from this formation elsewhere in the county.



VII. APPENDICIES

APPENDIX 1

SWMU DATA SHEET

Page 1 of 2

SWMU NUMBER: 1

PHOTO NUMBER:

NAME: Container Storage Area Inside Service Center

TYPE OF UNIT: Containers

PERIOD OF OPERATION: None

PHYSICAL DESCRIPTION AND CONDITION:

Will hold 6,912 gallons of waste inside of the main building (i.e. - service center).

WASTES AND/OR HAZARDOUS CONSTITUENTS MANAGED:

- D001, D006, D007, D008, F002, F003, F004, F005.

RELEASE PATHWAYS: Air () Surface Water () Soil ()

*NONE Groundwater () Subsurface Gas ()

HISTORY AND/OR EVIDENCE OF RELEASES(S): NONE

RECOMMENDATIONS: No Further Action (X)
RFA Phase II Sampling ()
RFI Necessary ()

REFERENCES: See Figures 1 and 3.

COMMENTS: *When fully constructed, this unit will be totally enclosed in a building and surrounded by a berm. Therefore, no release pathways are evident.

Project Name: Safety Kleen

Date: February, 1991

SWMU DATA SHEET

Page 2 of 2

SWMU NUMBER: 2

PHOTO NUMBER:

NAME: Tank Storage Area Inside Tank Farm Building

TYPE OF UNIT: Tank

PERIOD OF OPERATION: None - Area under construction during the VSI.

PHYSICAL DESCRIPTION AND CONDITION:

Six - 20,000 gallons steel tanks: Two product tanks, one waste tank and three waste oil tanks within an enclosed bermed area.

WASTES AND/OR HAZARDOUS CONSTITUENTS MANAGED:

- D001/D006/D008

RELEASE PATHWAYS: Air () Surface Water () Soil ()

*NONE Groundwater () Subsurface Gas ()

HISTORY AND/OR EVIDENCE OF RELEASES(S): NONE

RECOMMENDATIONS: No Further Action (X)
RFA Phase II Sampling ()
RFI Necessary ()

REFERENCES: See Figures 1 and 3.

COMMENTS: *When fully constructed, this unit will have secondary containment. Therefore, no release pathways are evident.

Project Name: Safety Kleen

Date: February, 1991

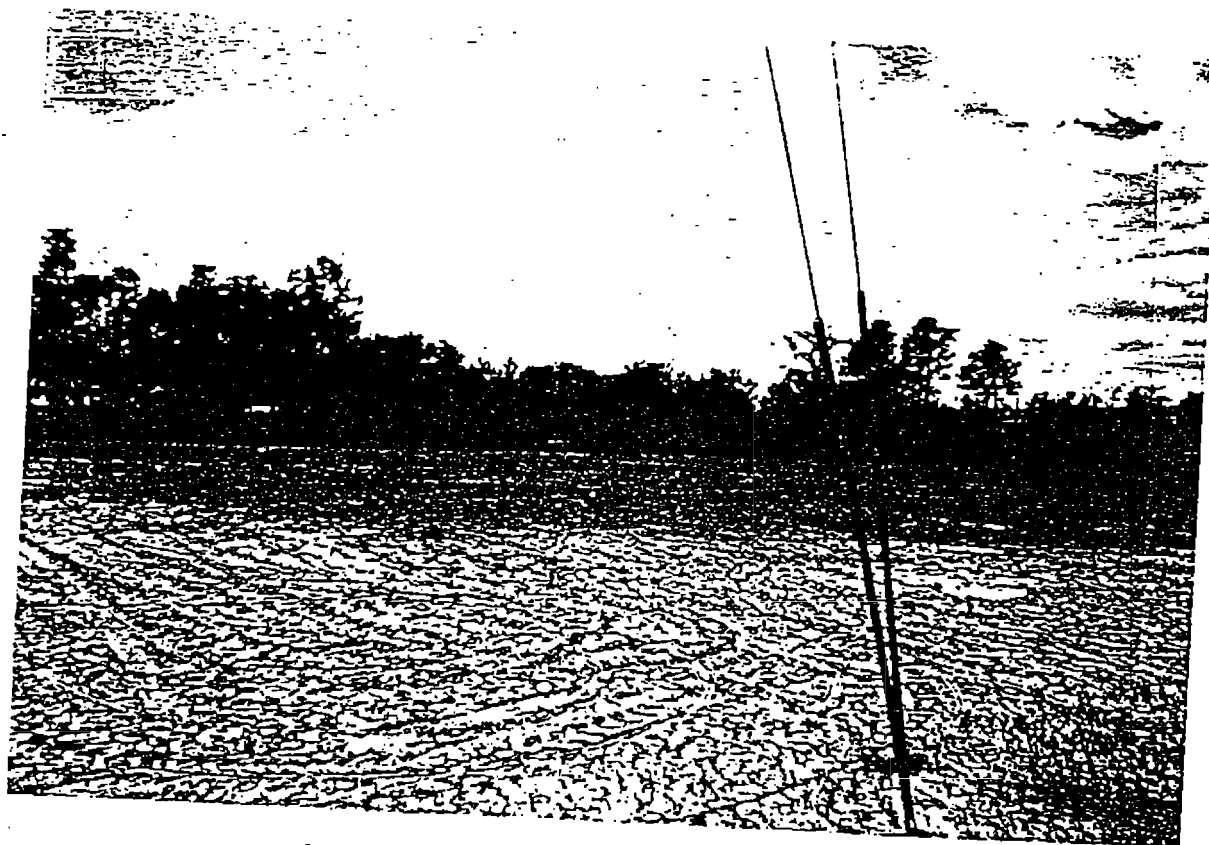
APPENDIX II



1. Facility Site
 looking west from the southeast corner
 2-18-91
 John E. Griffin



2. Facility Site
 looking north from the southeast corner
 2-18-91
 John E. Griffin



3. Facility Site
looking south from the northeast corner
2-18-91
John E. Griffin