Site Review And Update

SAPP BATTERY SALVAGE

ALFORD, JACKSON COUNTY, FLORIDA

CERCLIS NO. FLD980602882

SEPTEMBER 30, 1993

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

SITE REVIEW AND UPDATE

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ALFORD, JACKSON COUNTY, FLORIDA

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Prepared by

Office of Toxicology and Hazard Assessment
Florida Department of Health and Rehabilitative Services
Under Cooperative Agreement With
Agency for Toxic Substances and Disease Registry

SUMMARY OF BACKGROUND AND HISTORY

Sapp Battery Salvage (Sapp Battery) is about 5 miles south of Cottondale and about 2 miles north of Alford in Jackson County, Florida (Figure 1). This 45 acre site is on County Road 280 approximately one-quarter mile east of US 231. It is bounded on the south by County Road 280, on the east by railroad tracks, and on the north and west by swamps.

Sapp Battery reclaimed lead from used auto batteries from 1970 to 1980. At peak production, Sapp Battery processed 50,000 batteries per week. Sapp Battery disposed of battery casing chips in a man-made fishing pond in the northwest corner of the site adjacent to the Northwest Swamp (Figure 2). Soil contamination is concentrated on the western two-thirds of the site. Initially, Sapp Battery poured acid from the batteries directly on the ground. Acidic run-off flowed sequentially into the West Swamp, East Swamp, and Southeast Swamp. Acidic run-off from Southeast Swamp moved off site through a culvert under County Road 280 into Steele City Bay.

In 1978, the Florida Department of Environmental Protection (DEP) (formerly Department of Environmental Regulation) received complaints about dying cypress trees in Steele City Bay and beyond. Florida DEP required Sapp Battery to prevent acid run-off. Sapp Battery dug a holding pond for the acid waste and constructed a berm south of the West Swamp but was unsuccessful in preventing the acid run-off. In 1980 Sapp Battery abandoned the site.

In 1980, in response to citizen concerns about high acidity and lead concentrations in Steele City Bay, the Environmental Protection Agency (EPA) elevated and extended the berm south of West Swamp, built a berm north of the plant, and neutralized the acidic soil with lime. On- and off-site acidity initially decreased then increased. EPA placed the site on the Superfund National Priority List in 1982. In 1984, Florida DEP constructed a 6 foot fence around the site, drained the holding pond and treated the contaminated water, excavated and removed about 9,000 cubic yards of contaminated soil from the holding pond area, backfilled the holding pond with clean fill, and constructed a berm and weir to control storm water run-off. Under a cooperative agreement with EPA, Florida DEP completed a remedial investigation/feasibility study in 1986. EPA agreed to the following cleanup plans: excavation and on-site stabilization of contaminated soils and sediments, treatment of contaminated ground water, treatment of on- and off-site contaminated surface water, and monitoring of drinking water wells within 1 mile. In 1988, EPA began a site cleanup but suspended work pending further study when they discovered that contamination was more widespread than originally estimated.

In two 1986 letters to Florida DEP, the Florida Department of Health and Rehabilitative Services (HRS) commented on acceptable cleanup levels for lead, cadmium, and antimony. Florida HRS concluded that site cleanup levels for lead should be 79 parts per million (ppm) for the top 6 inches of soil and 107 ppm for the subsoil. Florida HRS did not consider any other chemicals, pathways of exposure, community health concerns, reach any other conclusions, or make any recommendations. These two Florida HRS letters formed the basis for the 1986 Agency for Toxic Substances and Disease Registry (ATSDR) preliminary health assessment. The 1986 preliminary health assessment only addressed acceptable soil cleanup levels. It did not reach any conclusions about the site's public health threat or make any recommendations.

Residents and local government officials expressed health concern related to lead contamination in the surface water and ground water, both sources of drinking water. Members of the Chipola Basin Protective Group expressed concern about contamination of the Chipola River which receives run-off from Sapp Battery via Steele City Bay, Little Dry Creek, and Dry Creek. Many members of this group use the Chipola River as their source of drinking water. Other area residents eat fish from the Chipola River and use it to irrigate crops and water livestock. In 1984 the HRS Jackson County Public Health Unit (CPHU) tested blood lead levels for area residents but did not identify any site-related lead poisoning. Nearby residents, however, complained of a lack of information and understanding of the potential health effects of lead.

CURRENT CONDITIONS OF SITE

On September 23, 1993 Dr. Joe Sekerke, HRS Office of Toxicology and Hazard Assessment and Mr. Bill Dean of the HRS Jackson County Public Health Unit visited the site. Dr. Sekerke and Mr. Dean met a representative of Sanders Lead, a potentially responsible party (PRP) at the site. Dr. Sekerke observed a chain link fence with barbed wire on top on three sides of the site. The northern border is not fenced because it is a swamp. Part of the fence in the southwest corner of the site had been removed by workers from Sanders to allow entry of an office trailer. Sanders Lead plans to restore the fence and install new warning sign. Dr. Sekerke observed several locations where monitoring wells had been removed without proper abandonment. He also observed monitoring wells that have been properly abandoned. Dr. Sekerke observed a large pile of concrete rubble and sections of what appeared to be PVC monitoring wells on the northern portion of the site. Dr. Sekerke observed that the plastic liner installed over the contaminated soil in 1984 had deteriorated and areas previously covered were exposed. Signs of soil erosion were present. He observed heavy equipment and trucks parked on the northern portion of the site.

CURRENT ISSUES

The primary public health hazard at this site is lead contaminated ground water. Ground water is the primary source of drinking water in this area. Since Florida HRS reviewed the soil contamination in 1986, ATSDR and the Centers for Disease Control have documented human lead neurotoxicity at lower exposure levels. Since 1986, Florida DEP has reduced the standards for surface and ground water in Florida from 50 to 15 micrograms per liter (µg/L). Some of the drinking water wells that were tested in 1986 contained lead levels that exceeded the current standard. Many of the samples were tested with a method that was not sufficiently sensitive to detect lead contamination at the current standard. Deterioration of the plastic soil liner and improperly abandoned monitor wells have likely allowed continued migration of lead for the contaminated soil and/or upper aquifers into the deeper drinking water aquifer.

Although the environmental impact and community concerns about the acidic run-off from the site have diminished, concerns about lead contamination still persist.

In 1992 the PRPs completed a remedial design. Sanders Lead will collect additional on-site soil and ground water samples and conduct the initial cleanup. Cleanup levels for soil and groundwater have not been finalized. Based on the remedial design, Sanders Lead will excavate, solidify, and return the contaminated soil. Cleanup of groundwater will begin after the soil remediation is complete. These activities may increase community awareness and concerns about the site.

CONCLUSIONS

The 1986 preliminary health assessment only addressed acceptable soil cleanup levels. It did not reach any conclusions about the site's public health threat or make any recommendations. The public health threat of this site needs to be evaluated.

RECOMMENDATIONS

1. The extent of lead contamination both on and off site needs to be fully determined. The condition of drinking water from nearby residential wells should be determined as soon as possible. Any sampling data since 1986 should be reviewed. If contamination is identified, corrective action should be taken.

2. A complete public health assessment should be conducted as soon as additional data on the extent of contamination of on- and off-site soil, sediment, surface water, and ground water are available. This assessment should address past

and present health risk in light of current knowledge of the health effects of lead.

3. Sampling of drinking water wells in the area should continue on a quarterly basis until the contamination in the Floridan Aquifer is remediated.

Health Activities Recommendation Panel Recommendations:

The data and information developed in the Site Review and Update have been evaluated to determine if follow-up actions may be indicated. Further site evaluation is needed to determine appropriate public health actions.

DOCUMENTS REVIEWED

1. Consent Decree - USA vs Aaron Scrap, et al.

2. Preliminary Health Assessment for Sapp Battery Salvage, Jackson County, Florida, CERCLIS NO. FLD980602882, July 1986.

3. Summary Report on the Field Investigation of the Sapp Battery Site, Jackson County, Florida prepared by Ecology and Environment, Inc. November 1986.

4. Draft Work Plan for the Remedial Design/Remedial Action at the Sapp Battery Site, Jackson County, Florida. Revision I, July, 1988.

5. 60% Design Report. Remedial Control Design. Sapp Battery Site. February, 1990.

6. Community Relations Plan for the Sapp Battery Superfund Site, Jackson County, Florida. November 1991.

Prepared of Site Review and Update

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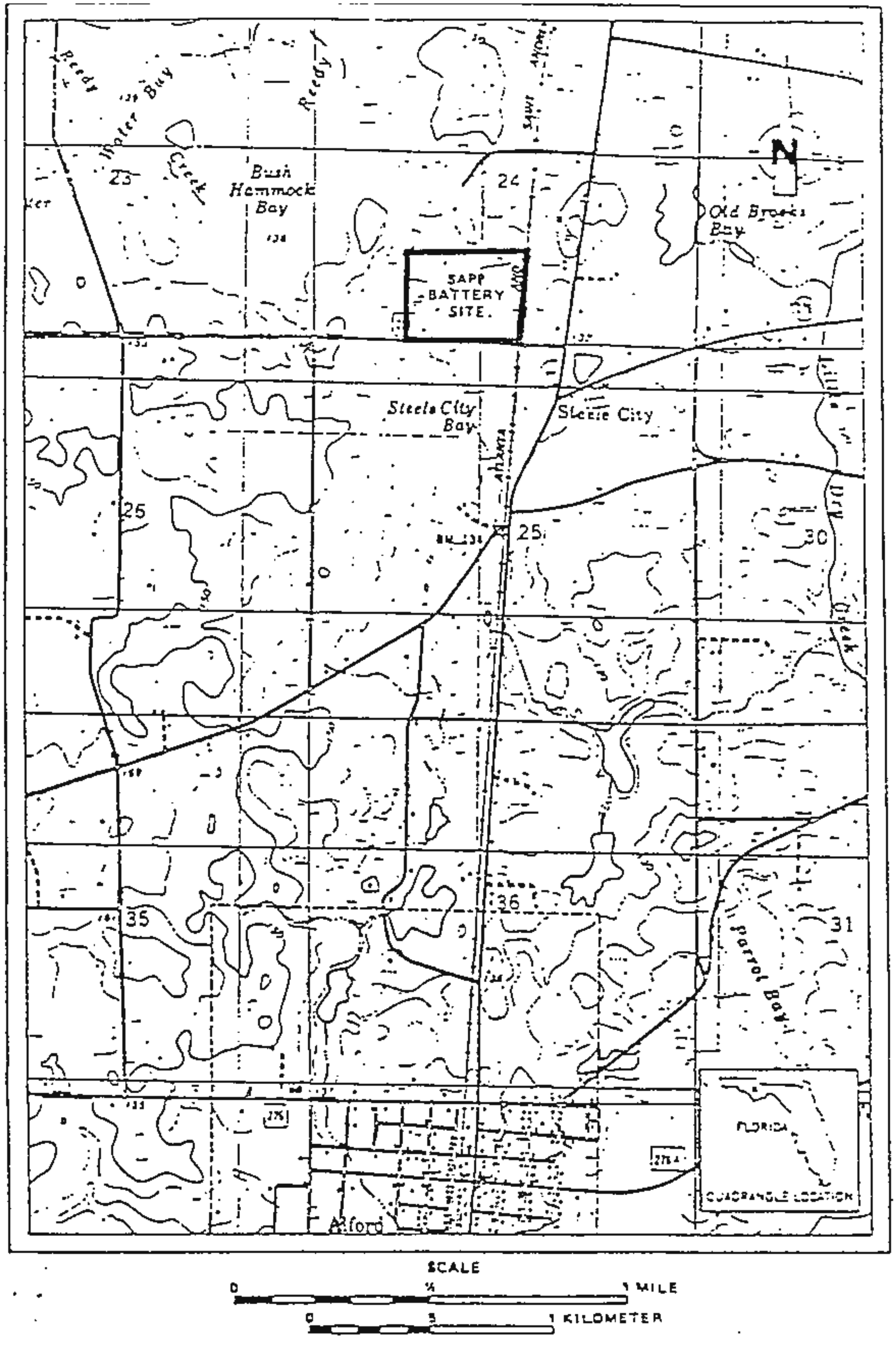
Reedy
Water Bay
Creek
Reedy
Bush
Hammock
Bay
23
24
Old Brooks
Bay
SAPP
BATTERY
SITE
Steele City
Bay
Steele City
25
30
35
36
31
Parrot Bay
Creek
Alford
FLORIDA
QUADRANGLE LOCATION
SCALE
0
½
1 MILE
0
.5
1 KILOMETER

FIGURE 1

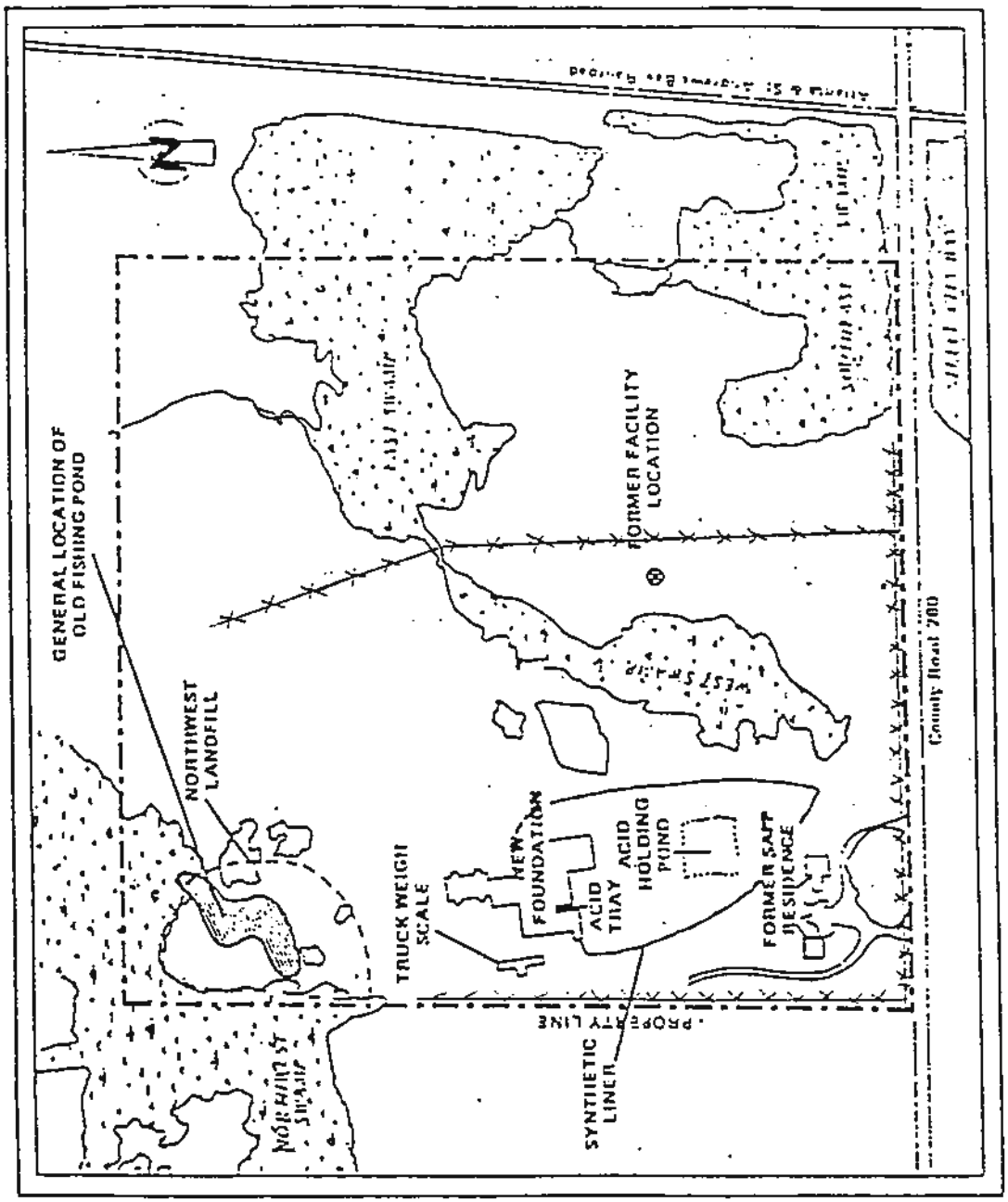
N
GENERAL LOCATION OF OLD FISHING POND
NORTHWEST LANDFILL
FORMER FACILITY LOCATION
TRUCK WEIGH SCALE
NEW FOUNDATION
ACID TRAY
ACID HOLDING POND
FORMER SAFT RESIDENCE
SYNTHETIC LINER
PROPERTY LINE
County Road 780
SCALE
Property Line
Fence

FIGURE 2