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FACT SHEET "SEABEE BASE DIOXIN CLEANUP RESULTS OF NEIGHBORHOOD SAMPLING" NCBC GULFPORT MS
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# Seabee Base Dioxin Cleanup:
## Results of Neighborhood Sampling
April 2003
Revised October 2003

### History of Dioxin at the Gulfport Seabee Base

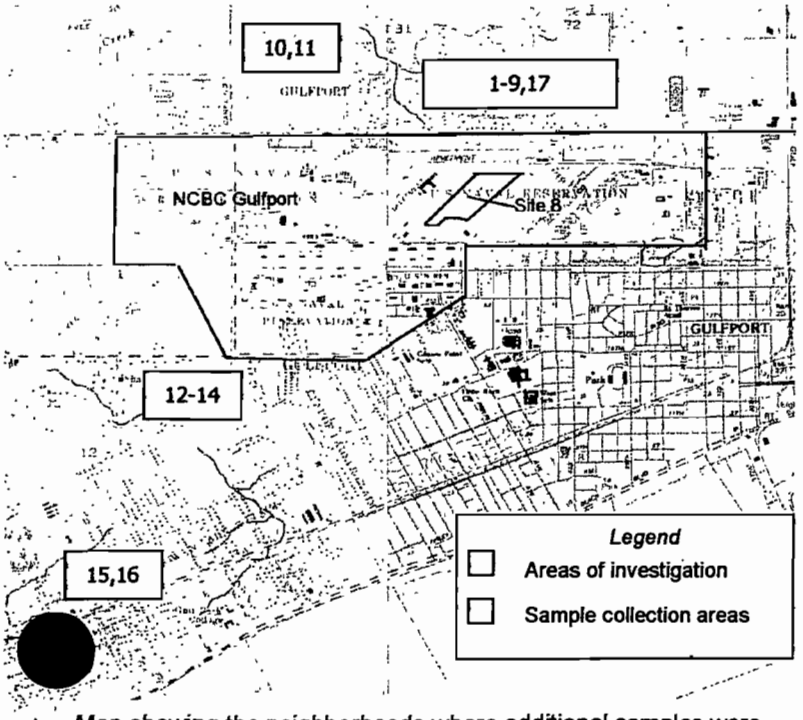
During the Vietnam War, drums of Herbicide Orange were stored by the Air Force on the Seabee Base. In the late 1970s the herbicide was emptied from the drums into tanker cars then transported to a specialized incinerator ship where it was taken out to sea and burned. Following removal of the drums, the Air Force studied the site and determined the amount of dioxin-contaminated soil on the site. Dioxin was a byproduct that was created during the manufacturing of Herbicide Orange.

In the late 1980s the Air Force cleaned up the dioxin-contaminated soil, now referred to as *Site 8, the Former Herbicide Orange Storage Area*, to the standards of the time. In recent years more has been learned about the potential health effects caused by dioxin. In response, Mississippi set a stricter cleanup standard for dioxin. This caused the previous cleanup and many of the earlier studies to be reassessed.

In 1995 the Navy collected samples on and around the Seabee Base to evaluate the need for additional environmental cleanup. Some of the samples showed that dioxin had moved off of the base and into ditches to the north at concentrations higher than the newly established standard. These findings triggered an extensive sampling program.

Results of this sampling program were used to determine the extent of dioxin contamination both on and off of the base and to develop a proposal for cleanup. This Proposed Plan was presented to the public during the public comment period that began in April of 2002. During the comment period, community members shared new information that showed the need for additional sampling.

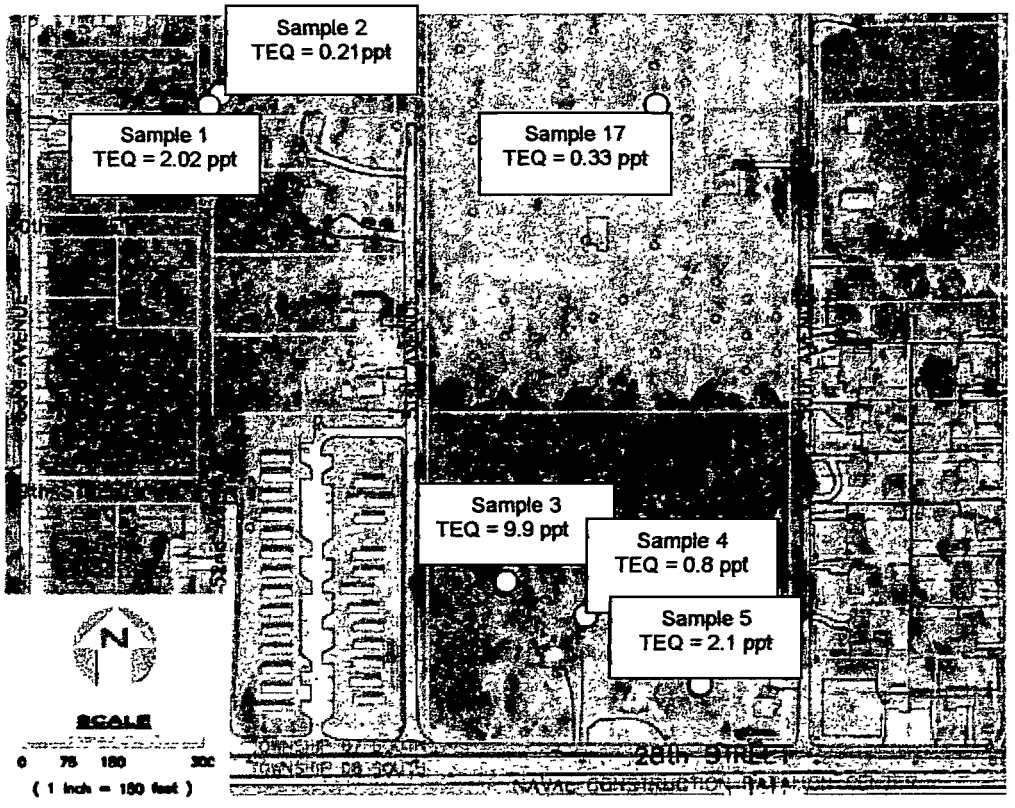
This fact sheet presents the results of the samples that were taken in response to this new information. The data is presented here as Toxicity Equivalency Quotients, or TEQs, as described in the box below.




Map showing the neighborhoods where additional samples were collected. The sample numbers are shown in the green boxes.

## How is dioxin reported?

Dioxin is a common name given to a group of 210 different compounds collectively referred to as dioxins and furans. The most toxic of these compounds is **2,3,7,8-tetrachlorodibenzo-p-dioxin**, also known as **TCDD**. The other 209 dioxin and furan compounds are less toxic than TCDD. For this reason, dioxin concentrations are presented as a computed value that takes into account all of the dioxin compounds that are present in the sample and the relative toxicity of each of these compounds as compared to TCDD (called a TCDD-equivalent). The amount of dioxin in a given sample is reported as the sum of the concentration of TCDD and the TCDD-equivalents. This value is called the **Toxic Equivalency Quotient, or TEQ**. TCDD, the contaminant found in Herbicide Orange, may not be present or could be only a fraction of the TEQ value.



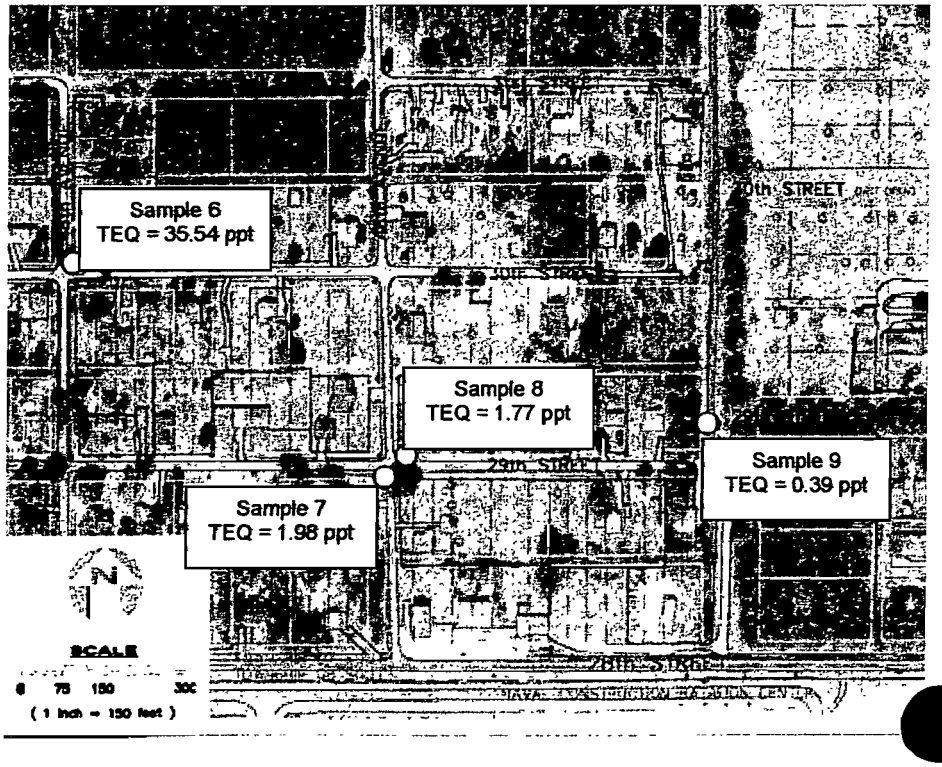

**Samples 1-5 and 17**

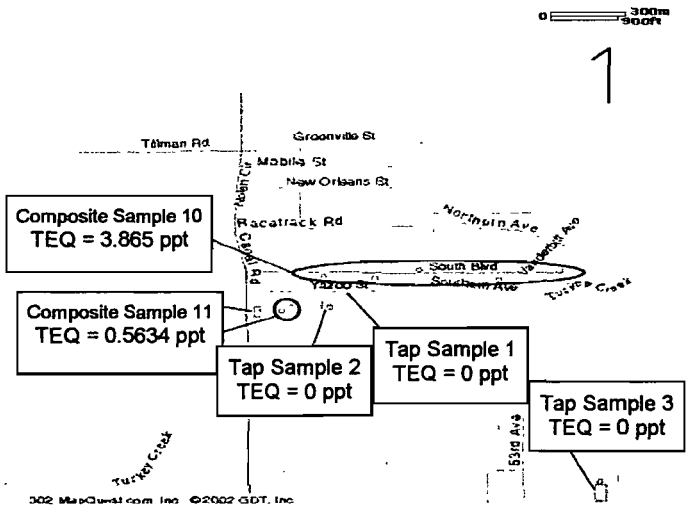
Samples 1 though 5 and 17 were collected north of the base. Results indicate that no further dioxin investigation is needed in this area.

**Samples 6 through 9**

Samples 6 though 9 were collected north of the base. Laboratory results suggest that the elevated concentration in Sample 6 may be due to the presence of polychlorinated biphenyls (PCBs) such as those found in transformer fluids. The Mississippi Power Company was asked to sample the area for PCBs by a local resident.

Results indicate that no further dioxin investigation is needed in the vicinity of samples 6 through 9.





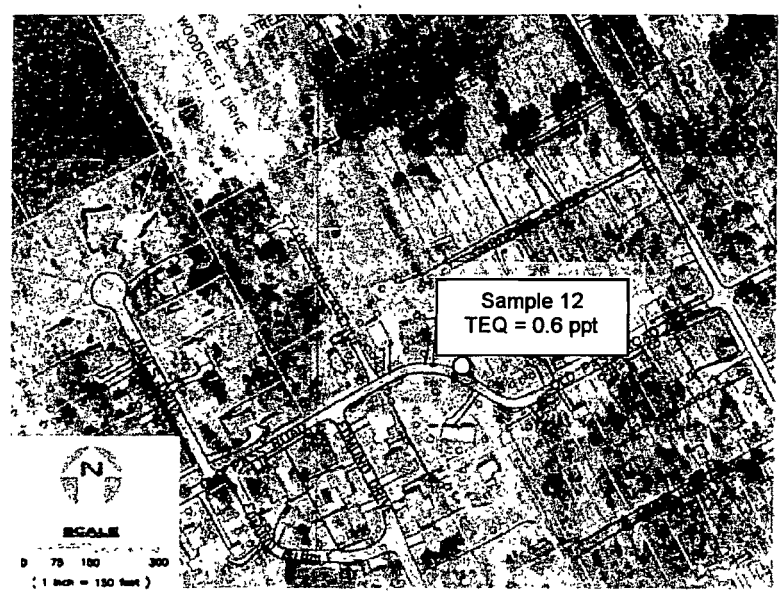

**Samples 10 and 11**

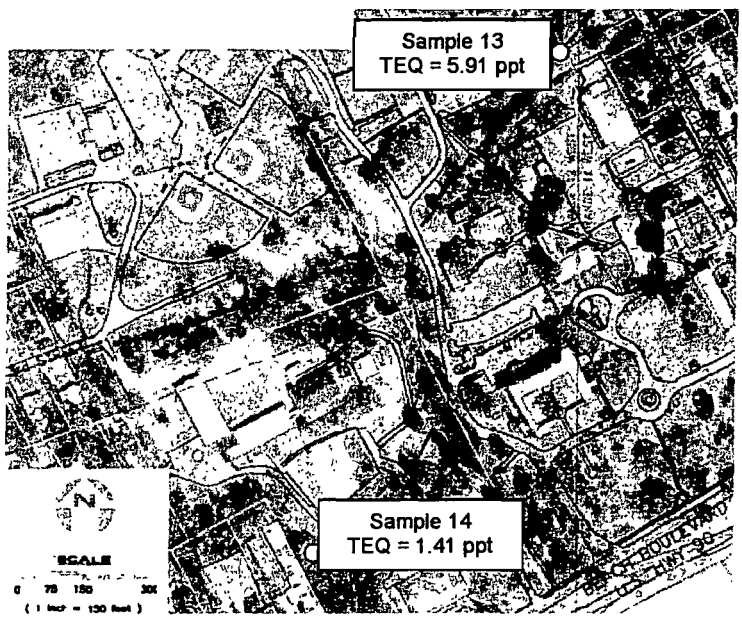
Sample 10 was a five-part composite collected along South Boulevard north of the base. Sample 11 was collected in a swale where sediment would typically collect. It was determined that no further dioxin investigation is needed in this area.

In addition, three tap water samples were collected. Dioxin concentrations measured in tap water were within United States Safe Drinking Water Standards.

**Sample 12**

Sample 12 was collected south of the base off of Old Pass Road. Results indicated that no further dioxin investigation is needed in this area.

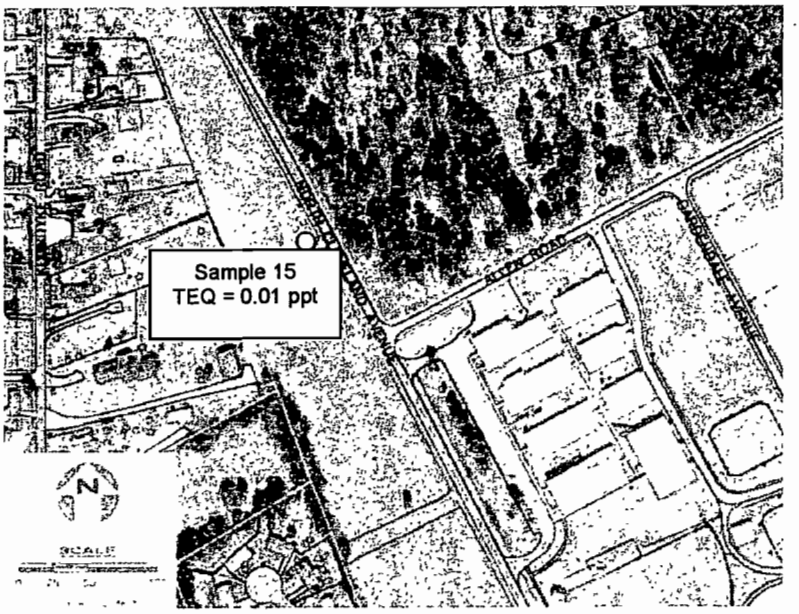


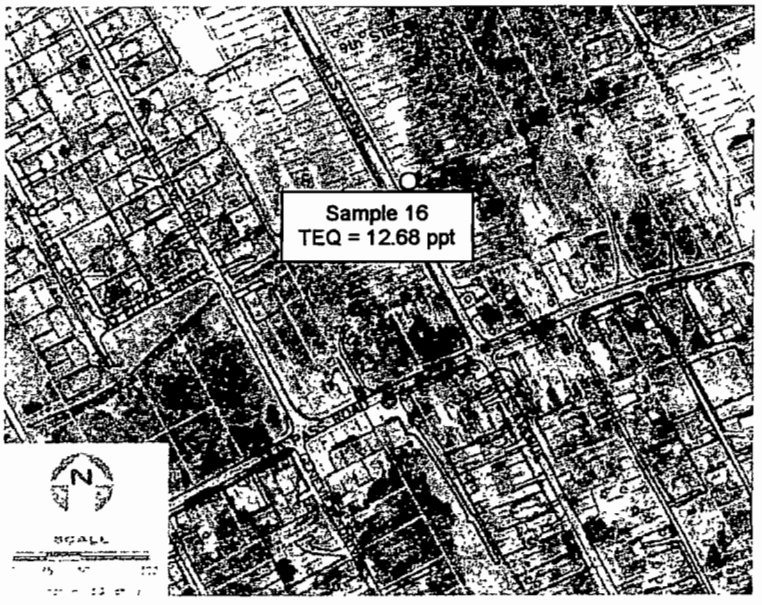




**Samples 13 and 14**

Samples 13 and 14 were collected in Long Beach southwest of the base. Results indicate that no further dioxin investigation is needed in this area.

**Sample 15**
Sample 15 was collected southwest of the base in Long Beach, Mississippi. No further dioxin investigation was indicated for this location.




**Sample 16**
Sample 16 was collected in Gaston Ponte approximately one block south of the Seabee Base. The dioxin found here is most likely the result of industrial activities. No further dioxin investigation was indicated for this location.

**Summary**

In response to information and concerns voiced by community members, 20 samples (17 sediment or soil and three drinking water samples) were collected and analyzed. Based on these results, there is no evidence of dioxin contamination from Site 8 in the study area. Also, dioxin was not found in the drinking water tested.