01.04-10/11/95-01732

FINAL

SITE CHARACTERIZATION AND EVALUATION REPORT SITES 10 AND 85 - MCB CAMP LEJEUNE AND SITES 11 AND 17 - NAVAL STATION ROOSEVELT ROADS

CONTRACT TASK ORDER 0348

OCTOBER 11, 1995

Baker

Baker Environmental, Inc.

FOSTER WHEELER

FOSTER WHEELER ENVIRESPONSE, INC.

WESTON

MANAGERS DESIGNERS/CONSULTANTS

01.04-10/11/95-01732

FINAL

SITE CHARACTERIZATION AND EVALUATION REPORT SITES 10 AND 85 - MCB CAMP LEJEUNE AND SITES 11 AND 17 - NAVAL STATION ROOSEVELT ROADS

CONTRACT TASK ORDER 0348

OCTOBER 11, 1995

Prepared for:

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND
Norfolk, Virginia

Under the:

LANTDIV CLEAN Program
Contract N62470-89-D-4814

Prepared by:

BAKER ENVIRONMENTAL, INC.
Coraopolis, Pennsylvania

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Baker Environmental, Inc. (Baker) conducted an expedited site characterization and evaluation under Contract Task Order (CTO) 0348 of Installation Restoration Program (IRP) Sites 10 and 85 at Marine Corps Base Camp Lejeune, Jacksonville, North Carolina and IRP Sites 11 and 17 at Naval Station Roosevelt Roads, Puerto Rico. Figures 1-1 and 1-2 present the location of each site at MCB Camp Lejeune and Naval Station Roosevelt Roads, respectively.

Objectives of the study are to identify the presence and levels of contaminants at each of the sites. Data, presented in this report, have been compared to relevant standards and criteria applicable to sites located within USEPA Regions II and IV.

It should be noted that due to the expedited nature of the sampling program and the intent to conduct more comprehensive investigations, data were not validated, nor were quality assurance/quality control (QA/QC) samples provided to the laboratory for analysis. Therefore, information presented in this report should be utilized only as a pre-screening measure of environmental conditions at each of the study areas.

Sections 2.0 and 3.0 (respectively) provide brief overviews of site settings and field sampling activities conducted at each facility. Notable physical results of the field effort are presented in Section 4.0. Analytical data for each site are presented in Section 5.0 and Section 6.0 provides a summary of the site characterization effort.

Tables and Figures are presented at the end of the report. Appendix A includes Chain-of-Custody documentation, as well as a summary of the analytical results.

2.0 SITE BACKGROUND AND SETTING

Two disposal areas were investigated at MCB Camp Lejeune, Jacksonville, North Carolina, including; Site 10, the original base landfill; and, Site 85, the Camp Johnson battery dump. Four areas were investigated at Naval Station Roosevelt Roads: Site 11 comprised of a Solid Waste Management Unit (SWMU 6) and an area of concern (AOC - B); and, Site 17, which includes two SWMUs (12 and 14).

The following sections provide brief descriptions of each area investigated during the site characterization.

2.1 MCB Camp Lejeune - Sites 10 and 85

2.1.1 Site 10 - Original Base Landfill

Historical records show that Site 10 was the original base construction debris landfill which operated from the early 1940's to the early 1950's. Records documenting type of debris and/or wastes deposited at Site 10 are unavailable at this time. However, areas of construction debris (i.e., concrete, bricks, barbed wire, and scrap metal) were observed during the initial site visit, conducted prior to commencing field activities.

Figure 1-1 identifies the location of Site 10 at Camp Lejeune. Holcomb Boulevard is located approximately 900 feet to the east of Site 10; Wallace Creek is located approximately 1,600 feet to the north, and Bearhead Creek is located approximately 1,750 feet to the south. Both of the creeks flow from west to east, and eventually drain into the New River.

The entire study area is partially wooded with dense underbrush. Site 10 gently slopes from the eastern edge to the center of the site with the slope becoming more steep along the western boundary and beyond. Surface runoff appears to traverse the site in a northwest direction, eventually flowing into a low, swampy area located approximately 300 feet to the northwest.

Figure 2-1 provides a general layout of Site 10.

2.1.2 Site 85 - Camp Johnson Battery Dump

Site 85 is located within the Camp Johnson support operations area. The site is accessed from Coolidge Road to the south via a network of improved and unimproved roads. With the exception of the roads, the surrounding area is relatively flat and densely vegetated with trees and a thick understory. Currently, the roads that surround Site 85 are used for vehicle training and support operations. Tactical Landing Zone (TLZ) Mallard, located approximately 300 feet to the west of Site 85, serves as a debarkation and landing point during personnel maneuvers. Figure 1-1 also identifies the location of Site 85 at Camp Johnson.

Reportedly, Site 85 was used as a battery dump during the 1950s. Battery remnants, possibly disposed during the Korean War era, were uncovered during road blading. During a site visit conducted in September 1993, five distinct disposal areas were identified.

Figures 2-2 provides a plan of Site 85.

2.2 Naval Station Roosevelt Roads - Sites 11 and 17

2.2.1 Site 11 - SWMU 6 (Building 145)

SWMU 6 - Building 145 comprises a portion of Installation Restoration (IR) Site 11. The building is a former bunker, approximately 60 yards long, 7 feet high, and 8 feet wide. Presently, three concrete piers (opened at the top) are located at the site. Stacks of wood debris are situated between the piers. The area surrounding the former bunker currently is used for storage of flat bed trailers. See Figure 2-3 for general site conditions at Site 11.

2.2.2 Site 11 - AOC B (Building 25)

AOC B - Building 25 is also included as part of IR Site 11 and is located adjacent to and southwest of SWMU 6. Building 25 was used by the Public Works Supply Department for temporary storage of materials from 1951 until the structure collapsed in 1979. Based on a review of aerial photographs flown in 1957, the entire area around the building was used for open storage of drummed material.

Presently, all that remains of Building 25 is the floor slab which is used for the storage of heavy equipment (e.g., bulldozers and cranes). The ground surrounding the slab is relatively flat. AOC B also is presented in Figure 2-3.

2.2.3 Site 17 - SWMU 12 (Fire Training Pit Oil/Water Separator)

The Fire Training Pit Oil/Water Separator is located approximately 40 feet northeast of the Fire Training Pit (SWMU 14) in an open grassy field adjacent to the Air Operations Department. Reportedly, this SWMU began operating in 1983.

The oil/water separator is an inground concrete tank that measures approximately 7 feet x 30 feet x 10 feet deep. Waste oils are burned at the Fire Training Pit during training exercises, the excess of which is collected in the oil/water separator. Water from this unit is pumped to the Sewer Drainage System to be processed by one of the Naval Station wastewater treatment plants. Oils from this unit are pumped back into the Fire Training Pit for reuse. A map of this SWMU is presented in Figure 2-4.

2.2.4 Site 17 - SWMU 14 (Fire Training Pit)

The Fire Training Pit (see Figure 2-4) was used for crash crew training from the early 1960s through 1983. Prior to 1983, fire training operations were conducted in an unlined pit where waste oils, solvents, fuels, wood, trash, fuel filter elements, and oily rags were burned and extinguished using aqueous film-forming foam (AFFF) and potassium bicarbonate (Purple K). The present fire training pit was constructed in 1983 at the same location as the old pit.

3.0 FIELD ACTIVITIES

Surface soil, subsurface soil and groundwater were collected as part of site characterization activities at each facility. All soil samples were collected using a stainless steel sampling spoon. Soils were classified in the field by a geologist using the United Soil Classification System (USCS) by the visual-manual methods described in ASTM D-2488. Lithologic descriptions were recorded in a field logbook. Soil classification included characterization of soil type, grain size, color, moisture content, and other pertinent information such as indications of contamination (i.e., staining, odor, elevated photoionization detector [PID] measurements).

Soil and groundwater samples were obtained using the Geoprobe ® Direct Push technology. This technology utilizes a large 4 foot core barrel which is pushed into the ground via a hydraulic hammer. Once the desired depth is reached the core barrel is removed from the borehole and opened. Soil that enters the core barrel is kept intact by a thin acetate tube which permits the geologist to view an undisturbed sample. Each tube is capped and labeled as to boring location and sample depth. Upon determining groundwater depth, subsurface samples are then chosen from the core barrels. A stainless steel sampling spoon was used to collect the soil from the acetate tubes.

Groundwater samples also were collected by using Geoprobe ® Direct Push technology. A 0.75 inch outside diameter steel rod with three feet of slotted screen was pushed into the ground via a hydraulic hammer. Four foot sections of steel riser pipe then were attached to the section of screen. This is procedure was continued until the screen bisected the groundwater table. Once the screen was fully submerged, the temporary well was left for 15 minutes to up to 2.5 hours to recharge (depending on site conditions). A peristaltic pump with disposable polyethylene tubing was then used to collect a groundwater sample directly into sampling containers from each temporary monitoring well.

Soil and groundwater sample containers for analyses of Volatile Organic Compounds (VOCs) were filled first, with the soil packed to diminish headspace. Upon filling the VOC containers, remaining soil was homogenized, and then placed into appropriate laboratory containers in order of volatilization (i.e., semivolatiles, pesticides, and polychlorinated biphenyls [PCBs], total petroleum hydrocarbon [TPH], and inorganics, as required). Groundwater sample containers also were filled in decreasing order of volatilization. Samples were kept in coolers on ice and under strict chain-of-custody until delivered to the laboratory.

Please note that QA/QC samples (duplicate samples, trip blanks, rinsate blanks, etc.) were not obtained as part of the preliminary screening sampling effort.

Any soil cuttings were returned to the borehole. Groundwater was obtained by directly filling sampling containers (purging was not conducted). Therefore, generation of investigation derived wastes (IDW) requiring off-site disposal was eliminated. Disposable sampling devices (spoons, tubing), utilized during the field effort, were double-bagged and disposed in on-base municipal containers.

3.1 MCB Camp Lejeune

The site-specific field program conducted at Sites 10 and 85 included surface soil, subsurface soil, and groundwater sampling. The field effort was performed during the week of September 26, 1995. Refer to Figures 2-1 and 2-2 for sampling locations at Sites 10 and 85, respectively.

Direct-push sampling at Sites 10 and 85 (discussed in Section 3.1.2) was provided by Microseeps, Inc., Pittsburgh, Pennsylvania.

Because reference points in the vicinity of Site 10 were not readily available to accomplish hand measurement of sampling points, the firm of Brent A. Lanier Surveying and Planning was retained to perform surveying activities. All soil boring and temporary monitoring well locations were surveyed for both distance and elevation. Vertical accuracy was within 0.01 feet, and horizontal accuracy was within 0.1 feet. Surveying activities were completed at Site 10 and Site 85 on September 28, 1995.

3.1.1 Site 10 - Original Base Landfill

3.1.1.1 Surface Soil Investigation

Five surface soils samples (10-SB01-00 through 10-SB05-00) were collected from Site 10 from 0 to 6 inches below ground surface. Each sample was given a unique descriptive abbreviation to identify sample location and depth (e.g., soil sample 10-SB01-00 refers to Site 10, soil boring number one, and first depth encountered ["00" equates to the 0 to 6 inch depth]).

3.1.1.2 Subsurface Soil Investigation

Each of the five surface soil sampling points (10-SB01 through 10-SB05) were extended into the subsurface. Ten subsurface soil samples (i.e., two subsurface soil samples from each soil boring) were collected at Site 10 from just above the water table, and from a depth midway between the surface and the water table.

Each subsurface soil sample was given a unique descriptive identifying number (e.g., soil sample 10-SB01-01 refers to Site 10, soil boring number one, and depth encountered [i.e., 01 equates to a depth of 1 to 3 feet bgs, 02 - 3 to 5 feet bgs, etc.]).

3.1.1.3 Groundwater Investigation

Three temporary groundwater monitoring wells (i.e., 10-TW01, 10-TW02, and 10-TW03) were installed at Site 10 as shown in Figure 2-1. Groundwater was extracted from each well by continuing the soil borings to a depth below the groundwater table, as described in Section 3.0 and sampled using the Geoprobe® technology. Temporary well 10-TW-03 required approximately two hours to recover prior to initiating acquisition of the groundwater sample.

3.1.2 Site 85 - Camp Johnson Battery Dump

3.1.2.1 Surface Soil Investigation

Five surface soil samples (85-SB01-00 through 85-SB05-00) were collected from Site 85. Each surface soil location was given a unique descriptive identifying number (e.g., soil sample 85-SB01-00 refers to Site 85, soil boring number one, and first depth encountered [i.e., 00 equates to the 0 to 6 inch depth]).

3.1.2.2 Subsurface Soil Investigation

Ten subsurface soils (i.e., two subsurface soil samples from each soil boring) were collected from 85-SB01 through 85-SB05 at Site 85; one from just above the watertable and one at a depth between the surface soil sample and the watertable sample.

Each subsurface soil location was given a unique identifying number to describe sample depth (e.g., soil sample 85-SB01-02 refers to Site 85, soil boring number one, and depth encountered [i.e., 02 equates to the 3 to 5 feet bgs]).

3.1.2.3 Groundwater Investigation

Three temporary groundwater monitoring wells (i.e., 85-TW01, 85-TW02, and 85-TW03) were installed at Site 85. Groundwater samples were collected by using Geoprobe® Direct Push technology as described in Section 3.0.

The temporary wells at Site 85 were installed by continuing the soil borings to below the groundwater table. Temporary monitoring well 85-TW01 was a continuation of soil boring 85-SB01; 85-TW02, a continuation of soil boring 85-SB04; and, 85-TW03, a continuation of soil boring 85-SB05. Monitoring well locations at Site 85 are presented in Figure 2-2.

Two wells at this site required longer recharge periods prior to sampling. Because the vertical openings in the metal well screen appeared to clog with silt, locations 85 TW02 and 85-TW03 required 2.5 hours and 1 hour, respectively, to recharge sufficiently to initiate groundwater sampling.

3.1.3 Analytical Program

Completed chain-of-custody (COC) documentation is provided in Appendix A. All samples were shipped overnight via Federal Express to Weston Environmental Metrics (Weston) for analyses.

Table 3-1 summarizes the soil and groundwater sampling program conducted at Sites 10 and 85. Results of the soil and groundwater investigations are presented in Section 5.0 of this report.

3.1.3.1 Site 10 - Original Base Landfill

All soil samples collected during the Site 10 investigation were analyzed for full Target Compound List (TCL) Organics and Target Analyte List (TAL) Inorganics (included cyanide). All three groundwater samples were analyzed for full TCL Organics and TAL Inorganics (total and dissolved fractions, and cyanide).

3.1.3.2 Site 85 - Camp Johnson Battery Dump

The soil samples obtained from Site 85 were analyzed for TAL metals and cyanide only. In addition, one composite sample from 85-SB01 was collected from the surface to just above the water table, for Toxicity Characteristic Leaching Procedure (TCLP) metals and Resource Conservation Recovery Act (RCRA) corrosivity (pH).

All three groundwater samples obtained from Site 85 were analyzed for TAL Inorganics (including total and dissolved fractions, and cyanide).

3.2 Naval Station Roosevelt Roads

Sampling activities conducted at Naval Station Roosevelt Roads during this investigation included the collection of surface and subsurface soil and groundwater samples. A Geoprobe® direct push system, provided by Target Environmental Services, Columbia, Maryland, was used to collect the subsurface soil and groundwater samples. The sampling technique for the Geoprobe® system is described in Section 3.0.

Soil samples were collected using decontaminated stainless steel spoons. Prior to sample collection, all vegetation (grass and roots) was removed from the location.

Each sampling point was measured in relation to a permanent structure in the vicinity (building, fence, etc.) and marked on a field map. Points were then drafted onto existing site figures during report preparation.

3.2.1 Site 11 - SWMU 6 and AOC B

3.2.1.1 Surface Soil Investigation

Two surface soil samples were obtained from 0 to 6 inches depth from SWMU 6 and three samples were collected from AOC B (Figure 2-3). Samples were acquired from 0 to 6 inches depth.

3.2.1.2 Subsurface Soil Investigation

Subsurface soil samples were only collected at SWMU 6 and AOC B. Two soil borings were advanced at SWMU 6 and three borings were advanced at AOC B (Figure 2-3) via the Geoprobe® method.

The Geoprobe® system described in Section 3.0 involves the advancement of a small diameter sampling tube with a clear acetate liner. The sampling tube was advanced in two foot intervals using a hammer drill. At the end of each sample interval, the tube was extracted from the borehole and the liner removed. The liner was then capped and marked with the boring number and depth interval.

It should be noted that the scope of work called for the collection of two subsurface samples from each boring. Because of the high percentage of rock fragments in the soil and subsequent low sample recovery, insufficient volume was available to obtain multiple samples. Therefore, a single composite sample was obtained at each location from an interval starting at the ground surface and continuing to a maximum depth of eight feet. It was necessary at some locations to advance two or more adjacent borings to obtain sufficient volume for a single composite sample. Sampling was consistent with methods noted above.

3.2.1.3 Groundwater Investigation

Three groundwater samples were collected at AOC B during this investigation as presented on Figure 2-3. Groundwater samples were collected at the same locations as the soil borings with the exception of AOCB-HP02. This sampling point was moved from its original location, AOCB-SB02 (see Figure 2-3) due to insufficient recharge in that area of the site.

Groundwater samples were collected by advancing the hollow-stem Geoprobe® rods with disposable drive point approximately two to three feet into the water table (typically encountered at a depth of eight feet below ground surface). The rods were then raised approximately six inches to one foot to allow groundwater to enter the rods. Flexible Teflon tubing was installed through the rods and connected to a peristaltic pump. Groundwater was pumped directly into the sample containers.

3.2.2 Site 17 - SWMUs 12 and 14

3.2.2.1 Surface Soil Investigation

Two surface soil samples were obtained from SWMU 12 and three samples were collected from SWMU 14 (Figure 2-4). Samples were acquired from 0 to 6 inches depth.

3.2.2.2 Subsurface Soil Investigation

Subsurface soil sampling was not included in the investigation of this site.

3.2.2.3 Groundwater Investigation

Groundwater sampling was not included in the investigation of this site.

3.2.3 Analytical Program

Completed COC documentation is provided in Appendix A. All samples were analyzed by Weston.

Table 3-1 summarizes the soil and groundwater sampling programs conducted at Sites 11 and 17. Results of the investigations are presented in Section 5.0 of this report.

3.2.3.1 Site 11

At SWMU 6 all surface and subsurface samples were analyzed for the Appendix IX parameter list. The parameter list for all AOC B samples (soil and groundwater) also included the Appendix IX list and TPH (Modified 8015).

Surface soil, collected at Site 11, were analyzed for VOCs (Method 8240), SVOCs (Method 8270), PCBs (Method 8080), and TPH (Modified 8015).

Suites of compounds which make up the Appendix IX list include:

- VOCs (Method 8240)
- SVOCs (Method 8270)
- Pesticides and Organophosphate pesticides (Method 8080)
- Herbicides (Method 8150)
- Dioxin (SW-846 Method 8280)
- PCBs (Method 8080)
- Metals (SW-846)
- Cyanide (Method 9010)
- Sulfide (Method 9030)

3.2.3.2 Site 17 - SWMUs 12 and 14

Surface soil, collected from Site 17, included analyses of VOCs (Method 8240), SVOCs (Method 8270), PCBs (Method 8080), and TPH (Modified 8015).

4.0 PHYSICAL RESULTS

This section presents physical results of each study area including surface and subsurface lithology, depth to groundwater and evidence of possible contamination (odors, staining, etc.)

4.1 MCB Camp Lejeune - Site 10

Surface soils at Site 10 are primarily silty sand, fine grained, with color ranging from dark brown to gray. Subsurface soils are primarily dark brown to grey, fine grained sand, with trace to little silt.

Photoionization detector (PID) readings did not exceed background for any of the soil samples.

Groundwater was encountered at a depth of approximately 5 feet below ground surface at 10TW01 and at a depth of 12 feet at 10TW02 and 10TW03. Groundwater elevations were calculated at 14.08 feet mean sea level (MSL) for Well 10TW012, and at 2.56 feet MSL and 3.18 feet MSL for wells 10TW01 and 03, respectively.

4.2 MCB Camp Lejeune - Site 85

Surface soils are primarily silty sand. Soil color includes dark brown, black and grey. Site 85 subsurface soils are primarily dark brown to light brown, fine-grained sand with trace silt.

PID readings did not exceed background during soil sampling activities.

Groundwater was encountered at a depth of approximately 8 feet below ground surface at temporary well locations 85TW02 and 85TW03, and at a depth of 12 feet at 85TW01. Groundwater elevations were calculated at 5.56 feet MSL, 8.5 feet MSL, and 8.42 feet MSL for wells 85TW01 to 03, respectively.

4.3 Naval Station Roosevelt Roads - Site 11

Site 11 incorporates Building 145 (SWMU 6) and Building 25 (AOC B). Soil conditions in the vicinity of Building 145 consist primarily of brown to tan sand, gravel, silt and clay. Soils at Building 25 are primarily a mixture of grey/brown sand and gravel with some clay and silt.

A slight petroleum odor was noticed within borehole AOCB-SB02; however, was not noticed in the soil samples. This may indicate a petroleum layer at the watertable at this location.

Groundwater was encountered at a depth of 8 feet below ground surface at Site 11. At Building 25 (AOC B), a slight sheen and petroleum odor were noted during groundwater sampling activities.

A temporary benchmark with an assumed elevation of 100 feet MSL was established during the investigation at Building 25. Groundwater elevations were calculated at 91 feet MSL, 91.6 feet MSL, and 92.4 feet MSL at sample locations AOCB-HP01, HP02, and HP03, respectively. Groundwater appears to flow southeast toward Ensenada Honda.

4.4 Naval Station Roosevelt Roads - Site 17

Site 17 is comprised of a fire training pit and oil/water separator (SWMU 12) and a second fire training pit (SWMU 14). Soil is described as brown sand and silt, with some fine to coarse gravel and little clay.

Groundwater was not encountered at the maximum boring depth of 6 feet below ground surface at this location.

5.0 ANALYTICAL RESULTS

Please note that samples were neither validated nor subjected to evaluation against QA/QC samples except those provided internally at the laboratory. This investigation was conducted only to provide preliminary information about each study area.

Tables providing inorganic groundwater results include both total and dissolved (denoted by "D" suffix) fractions. Appendix A provides a summary of analytical results.

5.1 MCB Camp Lejeune

Data have been presented with appropriate criteria for Region IV sites, including Federal Maximum Contaminant Levels (MCLs), North Carolina Water Quality Standards (NCWQS), Region III Risk-Based Concentrations (RBC) for tapwater and industrial and residential soils, and background soil concentrations specific to Camp Lejeune as updated under CTO-0303. Concentrations exceeding criteria have been highlighted depending on criteria.

Analytical results for detected concentrations of organic and inorganic compounds in surface soil, subsurface soil, and groundwater are summarized in Tables 5-1 through 5-6, respectively.

5.2 Naval Station Roosevelt Roads

Data have been presented with appropriate criteria for Region II sites, including Federal MCLs for groundwater. Because no Region II RBC values are available for groundwater and soils, Region III RBCs for tapwater (groundwater) and industrial and residential RBCs for soils were used in this report. Concentrations exceeding criteria have been highlighted, depending on criteria.

Analytical results for detected concentrations of organic and inorganic compounds in surface soil, subsurface soil, and groundwater are summarized on Tables 5-7 through 5-12, respectively.

6.0 SUMMARY OF FINDINGS

Compounds exceeding established criteria are presented in Tables 6-1 to 6-9. A brief discussion of analytical results are provided below.

6.1 MCB Camp Lejeune - Sites 10 and 85 - Surface Soil Summary

Organic compounds exceeding established criteria for surface soils at Sites 10 and 85 include: benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene. Benzo(a)pyrene was present greater than industrial RBCs in one sample and residential RBCs in two samples. All other semi-volatile compounds were greater than residential RBCs in only one sample each (see Table 6-1).

Only arsenic and manganese concentrations were greater than industrial RBCs in one surface soil sample. Arsenic was detected in six samples in concentrations above residential RBCs. Manganese was present above residential RBCs in two samples. Five additional inorganic compounds (beryllium, cadmium, mercury, lead, and zinc) exceeded residential RBCs in one sample each. Those inorganic compounds which were present in concentrations greater than site-specific background soil concentrations include: manganese and zinc (5 of 10 samples), potassium (4 of 10 samples), barium, copper, and mercury (3 of 10 samples), arsenic, cadmium, iron, and nickel (2 of 10 samples), and beryllium, cobalt, chromium, sodium, and vanadium (1 of 10 samples). Refer to Table 6-2.

6.2 MCB Camp Lejeune - Sites 10 and 85 - Subsurface Soil Summary

Only benzo(a)pyrene exceeded the residential RBC value in one subsurface soil sample (10-SB03-01); however, this data result was estimated by the laboratory (see Table 6-3).

No inorganic compounds in subsurface soils exceeded industrial RBCs; however, arsenic concentrations were greater than the residential RBC in 10 of 20 samples. Zinc exceeded the subsurface soil background value established for MCB Camp Lejeune in eight samples, lead was found greater than the background concentrations in four samples, manganese exceeded in three samples, barium, calcium, copper, and mercury were above background concentrations in two samples, and aluminum, arsenic, iron, nickel and vanadium exceeded background values in one sample each (see Table 6-4).

6.3 MCB Camp Lejeune - Sites 10 and 85 - Groundwater Summary

No organic compounds were present in groundwater samples above established criteria.

Table 6-5 indicates that aluminum and arsenic were present in 5 of 12 samples in exceedance of tap water standards. Manganese and vanadium exceeded tap water concentrations for those compounds in 4 of 12 samples. Beryllium concentrations were above the tap water value in two samples and cadmium and nickel exceeded in one sample each. Nickel and lead were present in concentrations greater than the Federal MCLs in five samples, chromium exceeded MCLs in four samples, and cadmium and mercury concentrations were above MCLs in two samples and one sample, respectively. North Carolina Water Quality Standards (NCWQS) were exceeded by iron in all 12 samples. Manganese concentrations were above the NCWQS in seven samples, chromium, nickel,

and lead exceeded in five samples, and beryllium concentrations were above criteria in two samples. Only one sample each of mercury and zinc were detected in concentrations above NCWQS.

6.4 Naval Station Roosevelt Roads - Sites 11 and 17 - Surface Soil Summary

Organic compounds which were found to exceed criteria include: benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. Of these compounds, benzo(a)pyrene was detected above industrial RBCs in 3 of 10 samples. Benzo(a)anthracene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene exceeded industrial RBCs in one sample each. Residential RBCs were exceeded by benzo(a)pyrene in five samples, and indeno(1,2,3-cd)pyrene in two samples. The other compounds were detected above residential RBCs in three samples each. Table 6-6 presents organic compounds exceeding criteria in surface soils.

As shown in Table 6-7, only arsenic concentrations in surface soils exceed industrial RBCs in three of five samples and residential RBCs in all samples.

6.5 Naval Station Roosevelt Roads - Sites 11 and 17 - Subsurface Soil Summary

Benzo(a)pyrene and dibenzo(a,h)anthracene were found in subsurface soil sample AOCB-SB03 in concentrations greater than established residential RBC values (see Table 6-8).

Only arsenic was detected in exceedance of the residential RBC value in four of five subsurface soil samples, as presented in Table 6-9.

6.6 Naval Station Roosevelt Roads - Sites 11 and 17 - Groundwater Summary

No organic or inorganic compounds were present in groundwater above tap water or Federal MCL concentrations.

Tables 6-1 and 6-5 present a summary of those contaminants which have exceeded criteria for soil and groundwater, respectively.

FIGURES

SECTION 1.0 FIGURES

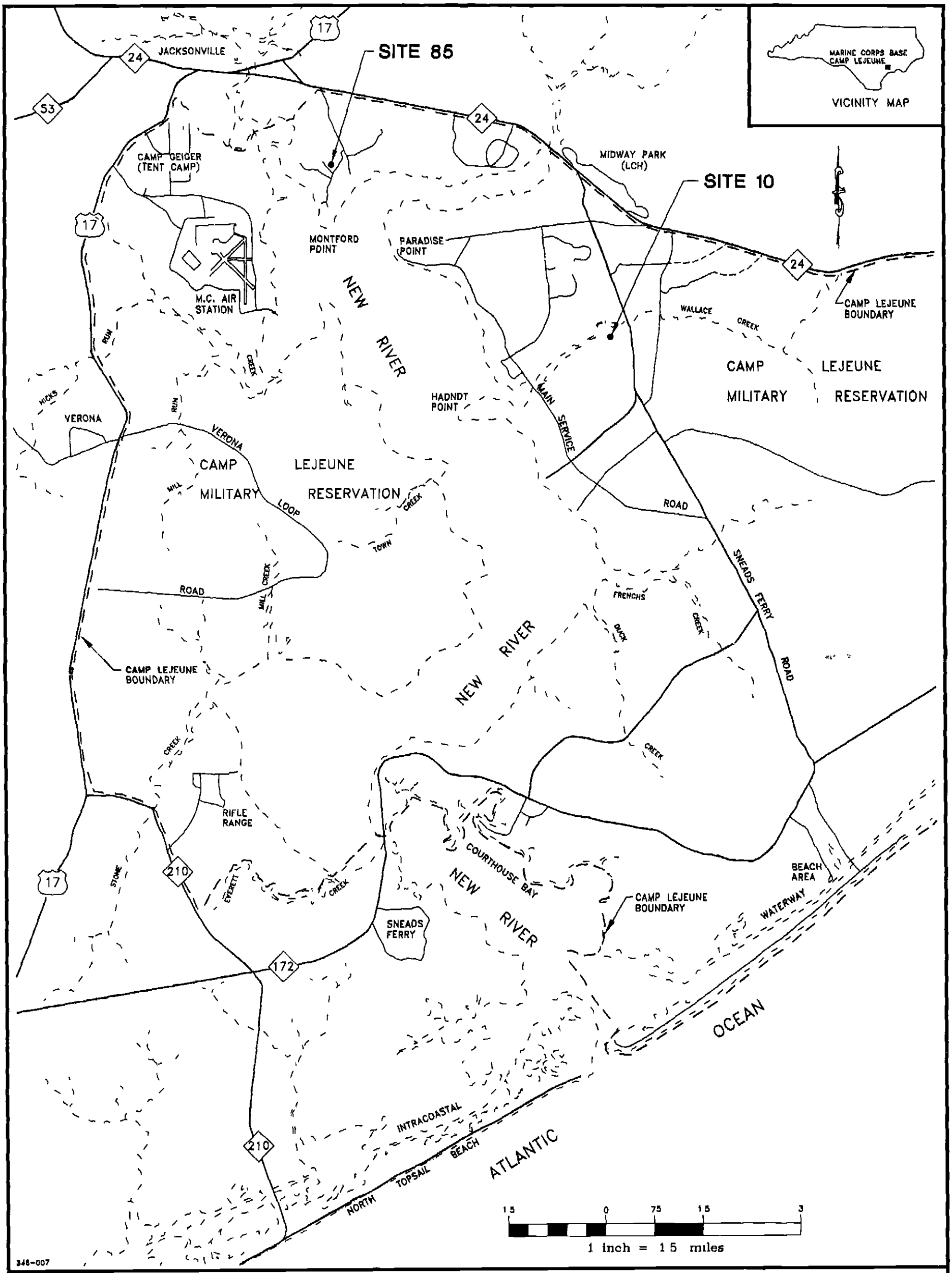


FIGURE 1-1
SITE LOCATIONS AT
MARINE CORPS BASE, CAMP LEJEUNE
SITE INVESTIGATION, CTO-0348

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

01732E012

LEGEND

1 SWMU AND/OR AOC

SOURCE LANTDIV, FEB 1992

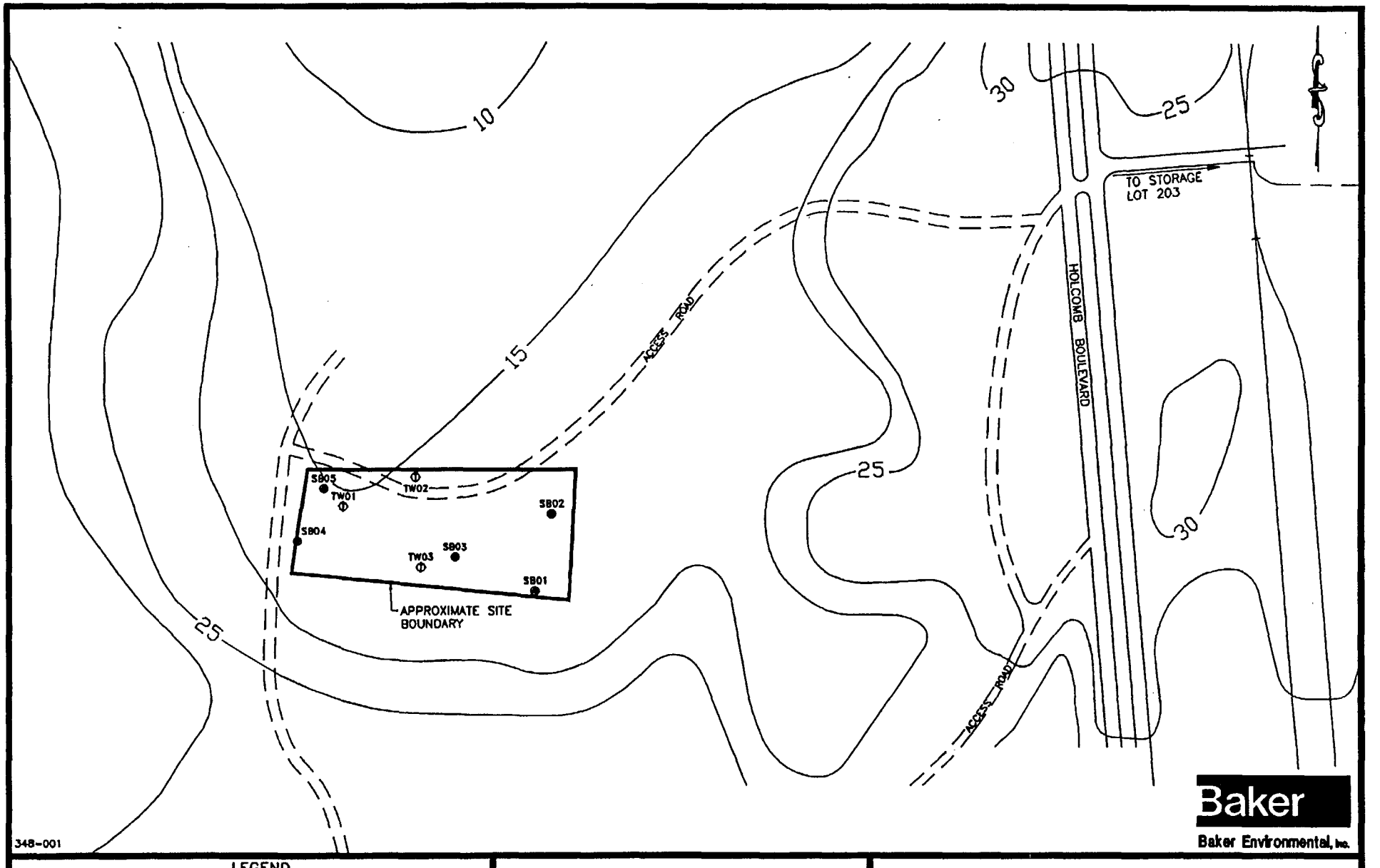
2500 0 1250 2500 5000

1 inch = 2500ft.

FIGURE 1-2
SWMU/AOC LOCATION MAP
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

01732E02Z

SECTION 2.0 FIGURES



LEGEND

SB01 SOIL BORING LOCATION

TW01 TEMPORARY GROUNDWATER MONITORING WELL

ACCESS ROAD

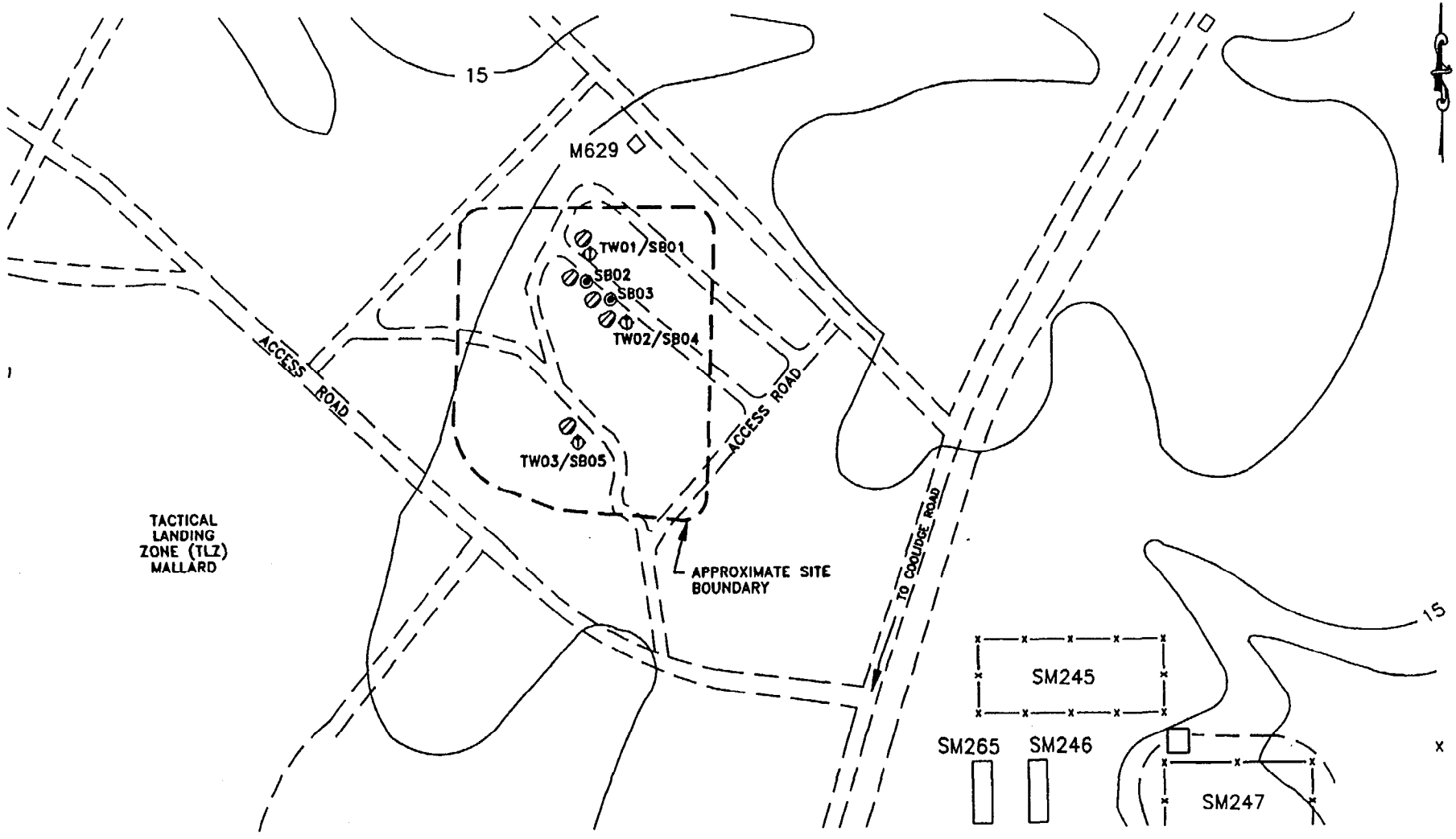
SOURCE: LANTDIV, FEB. 1992

250 0 175 250

1 inch = 250 ft.

FIGURE 2-1
SOIL AND GROUNDWATER SAMPLING LOCATIONS
SITE 10 - ORIGINAL BASE LANDFILL

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



348-001

Baker

Baker Environmental, Inc.

LEGEND

- SB02 — SOIL BORING LOCATION
- TW01/SB01 — TEMPORARY GROUNDWATER MONITORING WELL WITH CORRESPONDING SOIL BORING
- BATTERY DISPOSAL AREA
- DIRT ACCESS ROAD
- FENCE LINE

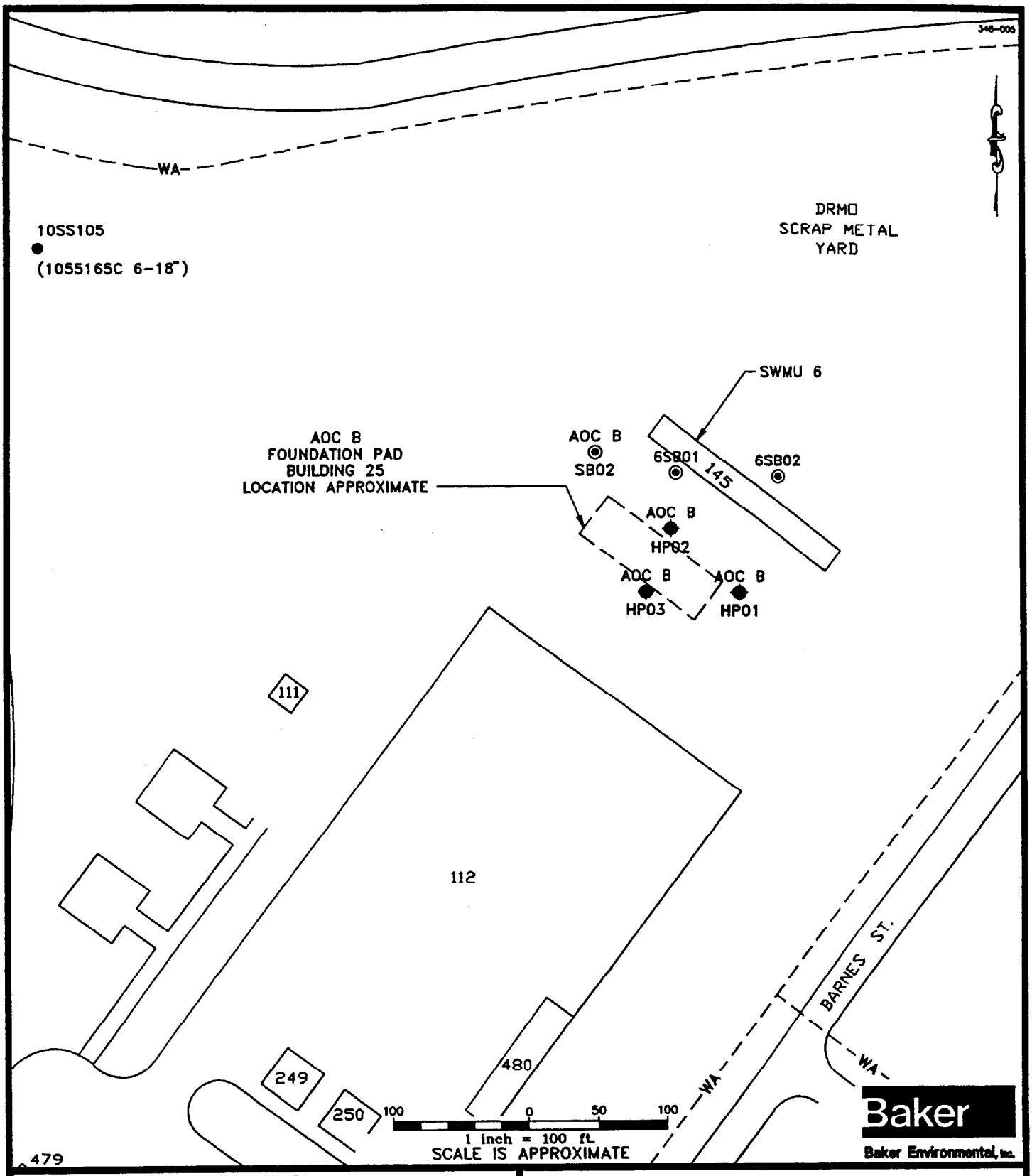
SOURCE: LANTDIV, FEB. 1992

250 0 175 250

1 inch = 250 ft.

FIGURE 2-2
SOIL AND GROUNDWATER SAMPLING LOCATIONS
SITE 85 - CAMP JOHNSON BATTERY DUMP

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



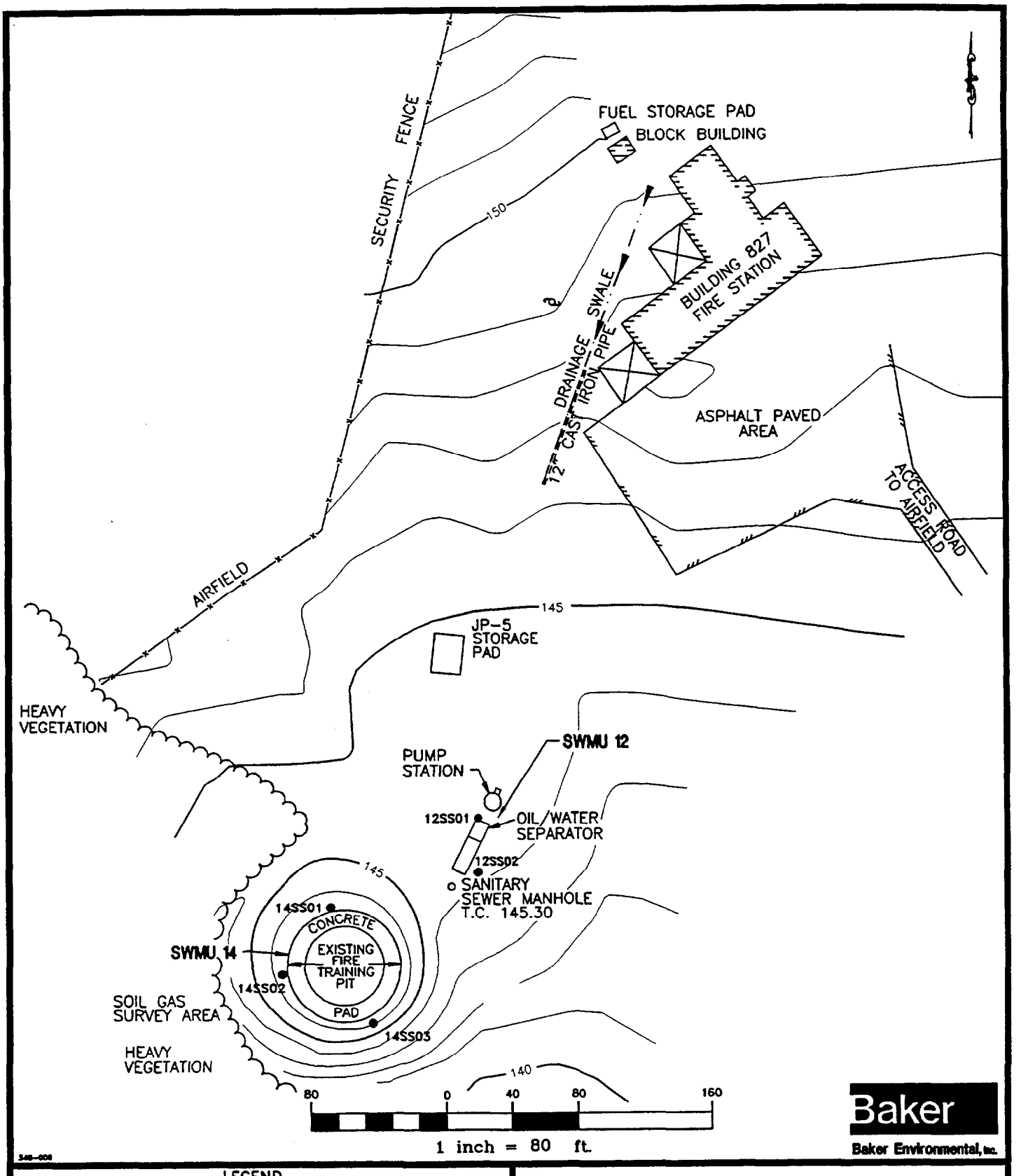
LEGEND

- 10SS105 — 1992 SOIL SAMPLE LOCATION (APPROXIMATE)
- 249 — STATION STRUCTURE
- WA — WATERLINE
- SOIL BORING LOCATION
- HYDROPUNCH LOCATION

SOURCE: STATION PUBLIC WORKS BASE MAP, FEB. 1992
SOURCE: BAKER ENVIRONMENTAL GPS SURVEY, NOV. 1992

FIGURE 2-3
SOIL AND GROUNDWATER SAMPLING LOCATIONS
SITE 11 - AOC B AND SWMU 6

NAVAL STATION ROOSEVELT ROADS
PUERTO RICO



LEGEND

- ● SOIL SAMPLING LOCATION
- 145 SURFACE ELEVATION CONTOUR
- ← SURFACE WATER DRAINAGE DIRECTION

SOURCE: STATION PUBLIC WORKS BASE MAP, FEB. 1992
SOURCE: BAKER ENVIRONMENTAL GPS SURVEY, NOV. 1992

FIGURE 2-4
SOIL SAMPLING LOCATIONS
SITE 17 - SWMU 12 AND 14

NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SECTION 3.0 TABLES

TABLE 3-1

SUMMARY OF SAMPLING PROGRAM
MCB CAMP LEJEUNE AND NAVAL STATION ROOSEVELT ROADS

Activity	Site	Media	No. of Samples	Analyses
MCB Camp Lejeune	Site 10	Surface Soil and Subsoil	5 10	TCL/TAL
		Groundwater	3	TCL/TAL
	Site 85	Surface Soil and Subsoil Groundwater Composite Soil	5 10 3 1	TAL metals TAL metals TAL metals (*) TCLP and pH
Naval Station Roosevelt Roads	Site 11 (SWMU 6)	Surface Soil and Subsoil	2 2	Appendix IX
	(AOC B)	Surface Soil and Subsoil	3 3	Appendix IX and TPH
		Groundwater	3	Appendix IX and TPH
	Site 17 (SWMU 12)	Soil	2	VOC, SVOC, PCBs, TPH
	(SWMU 14)	Soil	3	VOC, SVOC, PCBs, TPH

* includes total and dissolved fractions

SECTION 5.0 TABLES

TABLE 5-1
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	10-SB01-00	10-SB02-00	10-SB03-00	10-SB04-00	10-SB05-00	85-SB01	85-SB01-00
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
VOLATILES (ug/kg)									
Acetone	200000000	7800000	10 JB	15 B	15 B	16 B	26	NA	NA
SEMIVOLATILES (ug/kg)									
Naphthalene	82000000	3100000	410 U	390 U	380 J	440 U	450 U	NA	NA
2-Methylnaphthalene	82000000	3100000	410 U	390 U	140 J	440 U	450 U	NA	NA
Acenaphthylene	61000000	2300000	410 U	390 U	50 J	440 U	450 U	NA	NA
Acenaphthene	120000000	4700000	410 U	390 U	930	440 U	450 U	NA	NA
Dibenzofuran	8200000	310000	410 U	390 U	470	440 U	450 U	NA	NA
Fluorene	82000000	3100000	410 U	390 U	810	440 U	450 U	NA	NA
Phenanthrene	61000000	2300000	410 U	390 U	4500 E	440 U	450 U	NA	NA
Anthracene	610000000	23000000	410 U	390 U	1400	440 U	450 U	NA	NA
Carbazole	290000	32000	410 U	390 U	830	440 U	450 U	NA	NA
Fluoranthene	82000000	3100000	260 J	390 U	5700 E	440 U	450 U	NA	NA
Pyrene	61000000	2300000	290 J	43 J	5900 E	440 U	450 U	NA	NA
Benzo(a)anthracene	7800	880	170 J	390 U	4500 E	440 U	450 U	NA	NA
Chrysene	780000	88000	180 J	390 U	3600 E	440 U	450 U	NA	NA
Benzo(b)fluoranthene	7800	880	260 J	390 U	4600 E	440 U	450 U	NA	NA
Benzo(k)fluoranthene	78000	8800	110 J	390 U	1300	440 U	450 U	NA	NA
Benzo(a)pyrene	780	88	190 J	390 U	3500 E	440 U	450 U	NA	NA
Indeno(1,2,3-cd)pyrene	7800	880	120 J	390 U	2800	440 U	450 U	NA	NA
Dibenzo(a,h)anthracene	780	88	410 U	390 U	630	440 U	450 U	NA	NA
Benzo(g,h,i)perylene	61000000	2300000	110 J	390 U	2400	440 U	450 U	NA	NA
PESTICIDE/PCBS (ug/kg)									
Aldrin	340	38	2 U	1.9 U	33	2.2 U	2.2 U	NA	NA
4,4'-DDE	17000	1900	4.1 U	3.8 U	3.9 U	9.1	4.5 U	NA	NA
Endosulfan II	12000000	470000	4.1 U	3.8 U	3.9	4.3 U	4.5 U	NA	NA
4,4'-DDT	17000	1900	4.1 U	3.4 J	3.9 U	9.5	4.5 U	NA	NA

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
B - Present in blank
E - Exceeds linear calibration range
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-1
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	85-SB02-00	85-SB03-00	85-SB04-00	85-SB05-00
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]				
VOLATILES (ug/kg)						
Acetone	200000000	7800000	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
Naphthalene	82000000	3100000	NA	NA	NA	NA
2-Methylnaphthalene	82000000	3100000	NA	NA	NA	NA
Acenaphthylene	61000000	2300000	NA	NA	NA	NA
Acenaphthene	120000000	4700000	NA	NA	NA	NA
Dibenzofuran	8200000	310000	NA	NA	NA	NA
Fluorene	82000000	3100000	NA	NA	NA	NA
Phenanthrene	61000000	2300000	NA	NA	NA	NA
Anthracene	610000000	23000000	NA	NA	NA	NA
Carbazole	290000	32000	NA	NA	NA	NA
Fluoranthene	82000000	3100000	NA	NA	NA	NA
Pyrene	61000000	2300000	NA	NA	NA	NA
Benzo(a)anthracene	7800	880	NA	NA	NA	NA
Chrysene	780000	88000	NA	NA	NA	NA
Benzo(b)fluoranthene	7800	880	NA	NA	NA	NA
Benzo(k)fluoranthene	78000	8800	NA	NA	NA	NA
Benzo(a)pyrene	780	88	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	7800	880	NA	NA	NA	NA
Dibenzo(a,h)anthracene	780	88	NA	NA	NA	NA
Benzo(g,h,i)perylene	61000000	2300000	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)						
Aldrin	340	38	NA	NA	NA	NA
4,4'-DDE	17000	1900	NA	NA	NA	NA
Endosulfan II	12000000	470000	NA	NA	NA	NA
4,4'-DDT	17000	1900	NA	NA	NA	NA

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
B - Present in blank
E - Exceeds linear calibration range
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-2
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SS [mg/kg] Background 2X (CTO 303)	10-SB01-00 SOIL	10-SB02-00 SOIL	10-SB03-00 SOIL	10-SB04-00 SOIL	10-SB05-00 SOIL	85-SB01 SOIL
TOTAL ANALYTES (mg/kg)									
Aluminum	1000000	78000	5940.594	919	2250	814	421	1410	NA
Arsenic	3.3	0.37	1.305	0.36 U	0.59	0.32 U	0.43 U	0.42 U	NA
Barium	140000	5500	17.36	4.1	18.1	3.7	16.2	3.5	NA
Beryllium	1.3	0.15	0.205	0.27 U	0.39	0.35 U	0.37 U	0.34 U	NA
Calcium	NC	NC	1396.788	148	803	225	889	39.7	NA
Cadmium	1000	39	0.688	0.51 U	0.54 U	0.65 U	0.7 U	0.64 U	NA
Cobalt	120000	4700	1.923	0.4 U	0.88	0.54	0.55 U	0.5 U	NA
Chromium	10000	390	6.693	1.8	2.6	2.1	0.95	0.97	NA
Copper	76000	2900	7.2	1.3	3.2	1.4	2.4	1	NA
Iron	NC	NC	3755.063	794	1990	604	384	1040	NA
Mercury	610	23	0.094	0.11 U	0.12 U	0.1 U	0.11 U	0.1 U	NA
Potassium	NC	NC	199.61	144	129	146	213	121 U	NA
Magnesium	NC	NC	205.751	106	183	60.7	146	36.3	NA
Manganese	10000	390	18.497	13.3	34.6	3.2	3.9	2.8	NA
Sodium	NC	NC	59.298	12.5	29.4	14.1	18.6	14.6	NA
Nickel	41000	1600	3.434	2.1 U	2.3 U	2.7 U	2.9 U	2.6 U	NA
Lead	NC	400	23.749	28	48.5	25.7	12.1	2.1	NA
Selenium	10000	390	0.746	0.32 U	0.31 U	0.29 U	0.53	0.37 U	NA
Vanadium	14000	550	11.628	2.4	5	2.9	3	3.5	NA
Zinc	610000	23000	13.88	8.6	29.2	10.1	7.6	0.75	NA
Cyanide	41000	1600	2.905	0.48 U	0.53 U	0.57 U	0.62 U	0.66 U	NA

Notes:
mg/kg - milligrams per kilogram
NA - Not analyzed
NC - No criteria available
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-2
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	SS [mg/kg]	85-SB01-00	85-SB02-00	85-SB03-00	85-SB04-00	85-SB05-00
Media	Soils [mg/kg]	Soils [mg/kg]	Background 2X (CTO 303)	SOIL	SOIL	SOIL	SOIL	SOIL
TOTAL ANALYTES (mg/kg)								
Aluminum	1000000	78000	5940.594	3080	1140	2910	3190	1870
Arsenic	3.3	0.37	1.305	1.5	76.8	0.63	0.55	0.55
Barium	140000	5500	17.36	19.2	134	9.5	9.4	6.9
Beryllium	1.3	0.15	0.205	0.31 U	0.42 U	0.26 U	0.32 U	0.34 U
Calcium	NC	NC	1396.788	580	823	91	196	91.9
Cadmium	1000	39	0.688	2.1	47.1	0.49 U	0.61 U	0.63 U
Cobalt	120000	4700	1.923	0.45 U	17.3	0.38 U	0.48 U	0.5 U
Chromium	10000	390	6.693	2.3	147	2.8	3.2	3.3
Copper	76000	2900	7.2	89.2	1870	2	8.1	0.88
Iron	NC	NC	3755.063	4590	339000	1570	1990	1480
Mercury	610	23	0.094	2.1	70.7	0.35	0.12 U	0.12 U
Potassium	NC	NC	199.61	214	456	159	158	238
Magnesium	NC	NC	205.751	118	108	89.6	104	62.2
Manganese	10000	390	18.497	739	19700	19.2	218	3.8
Sodium	NC	NC	59.298	12.9	69	9.7	12.5	10.5
Nickel	41000	1600	3.434	2.4 U	117	2 U	2.5 U	3.5
Lead	NC	400	23.749	143	3030	20.5	4.9	10.8
Selenium	10000	390	0.746	0.39 U	0.52 U	0.31 U	0.31 U	0.34 U
Vanadium	14000	550	11.628	4.8	13.9	4.1	5.1	5.9
Zinc	610000	23000	13.88	1330	63900	101	359	5.2
Cyanide	41000	1600	2.905	0.9	2.1	0.51 U	0.56 U	0.57 U

Notes:
mg/kg - milligrams per kilogram
NA - Not analyzed
NC - No criteria available
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-3
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	10-SB01-01	10-SB01-02	10-SB02-01	10-SB02-02	10-SB03-01	10-SB03-02	10-SB04-02
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Phenol	1.00E+09	47000000	360 U	350 U	360 U	46 J	360 U	400 U	370 U
Acenaphthene	120000000	4700000	360 U	350 U	360 U	410 U	58 J	400 U	370 U
Fluorene	82000000	3100000	360 U	350 U	360 U	410 U	59 J	400 U	370 U
Phenanthrene	61000000	2300000	360 U	350 U	360 U	410 U	550	400 U	370 U
Anthracene	610000000	23000000	360 U	350 U	360 U	410 U	110 J	400 U	370 U
Carbazole	290000	32000	360 U	350 U	360 U	410 U	61 J	400 U	370 U
Fluoranthene	82000000	3100000	360 U	350 U	360 U	410 U	780	400 U	370 U
Pyrene	61000000	2300000	43 J	350 U	360 U	410 U	710	400 U	370 U
Benzo(a)anthracene	7800	880	360 U	350 U	360 U	410 U	390	400 U	370 U
Chrysene	780000	88000	360 U	350 U	360 U	410 U	380	400 U	370 U
Benzo(b)fluoranthene	7800	880	360 U	350 U	360 U	410 U	470	400 U	370 U
Benzo(k)fluoranthene	78000	8800	360 U	350 U	360 U	410 U	180 J	400 U	370 U
Benzo(a)pyrene	780	88	360 U	350 U	360 U	410 U	350 J	400 U	370 U
Indeno(1,2,3-cd)pyrene	7800	880	360 U	350 U	360 U	410 U	220 J	400 U	370 U
Dibenzo(a,h)anthracene	780	88	360 U	350 U	360 U	410 U	55 J	400 U	370 U
Benzo(g,h,i)perylene	61000000	2300000	360 U	350 U	360 U	410 U	190 J	400 U	370 U
PESTICIDE/PCBS (ug/kg)									
4,4'-DDT	17000	1900	3.7 U	3.6 U	3.6 U	4.1 U	3.5 U	4.1 U	8.2

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-3
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	10-SB04-04	10-SB05-02	10-SB05-04	85-SB01	85-SB01-02	85-SB01-04	85-SB02-02
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Phenol	1.00E+09	47000000	430 U	380 U	350 U	NA	NA	NA	NA
Acenaphthene	120000000	4700000	430 U	380 U	350 U	NA	NA	NA	NA
Fluorene	82000000	3100000	430 U	380 U	350 U	NA	NA	NA	NA
Phenanthrene	61000000	2300000	430 U	380 U	350 U	NA	NA	NA	NA
Anthracene	610000000	23000000	430 U	380 U	350 U	NA	NA	NA	NA
Carbazole	290000	32000	430 U	380 U	350 U	NA	NA	NA	NA
Fluoranthene	82000000	3100000	430 U	380 U	350 U	NA	NA	NA	NA
Pyrene	61000000	2300000	430 U	380 U	350 U	NA	NA	NA	NA
Benzo(a)anthracene	7800	880	430 U	380 U	350 U	NA	NA	NA	NA
Chrysene	780000	88000	430 U	380 U	350 U	NA	NA	NA	NA
Benzo(b)fluoranthene	7800	880	430 U	380 U	350 U	NA	NA	NA	NA
Benzo(k)fluoranthene	78000	8800	430 U	380 U	350 U	NA	NA	NA	NA
Benzo(a)pyrene	780	88	430 U	380 U	350 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	7800	880	430 U	380 U	350 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	780	88	430 U	380 U	350 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	61000000	2300000	430 U	380 U	350 U	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)									
4,4'-DDT	17000	1900	4.3 U	3.8 U	3.5 U	NA	NA	NA	NA

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-3
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	85-SB02-04	85-SB03-02	85-SB03-03	85-SB04-02	85-SB04-03	85-SB05-02	85-SB05-03
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Phenol	1.00E+09	47000000	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	120000000	4700000	NA	NA	NA	NA	NA	NA	NA
Fluorene	82000000	3100000	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	61000000	2300000	NA	NA	NA	NA	NA	NA	NA
Anthracene	610000000	23000000	NA	NA	NA	NA	NA	NA	NA
Carbazole	290000	32000	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	82000000	3100000	NA	NA	NA	NA	NA	NA	NA
Pyrene	61000000	2300000	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7800	880	NA	NA	NA	NA	NA	NA	NA
Chrysene	780000	88000	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7800	880	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78000	8800	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	780	88	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	7800	880	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	780	88	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	61000000	2300000	NA	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)									
4,4'-DDT	17000	1900	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-4
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	SB [mg/kg]	10-SB01-01	10-SB01-02	10-SB02-01	10-SB02-02	10-SB03-01	10-SB03-02
Media	Soils [mg/kg]	Soils [mg/kg]	Background 2X (CTO 303)	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
TOTAL ANALYTES (mg/kg)									
Silver	10000	390	0.87	0.54 U	0.85	0.46 U	0.49 U	0.55 U	0.61 U
Aluminum	1000000	78000	7375.30	4680	717	2290	782	964	641
Arsenic	3.3	0.37	1.97	1.2	0.3 U	0.67	0.35 U	0.28 U	0.29 U
Barium	140000	5500	14.20	15.4	3.2	11.2	1.8	6.4	2
Calcium	NC	NC	391.51	1550	103	1250	79.4	247	66.8
Cadmium	1000	39	0.71	0.59 U	0.58 U	0.5 U	0.52 U	0.59 U	0.65 U
Chromium	10000	390	12.56	4.6	0.83	3.3	0.81	1.9	0.73
Copper	76000	2900	2.42	1.8	0.75	6.2	0.38	2.1	0.59
Iron	NC	NC	7252.08	2110	165	2400	404	950	161
Mercury	610	23	0.13	0.09 U	0.09 U	0.088 U	0.083 U	0.11 U	0.086 U
Potassium	NC	NC	347.24	167	217	136	117	132	159
Magnesium	NC	NC	260.72	210	33.5	192	26.3	65.7	26.6
Manganese	10000	390	7.92	9.1	1.9	23.5	2.5	6.3	1.3
Sodium	NC	NC	52.68	19.7	17	18.9	9	9.8	8.3
Nickel	41000	1600	3.71	2.4 U	2.4 U	2.1 U	2.2 U	2.4 U	2.7 U
Lead	NC	400	8.33	10.7	1.1	99.8	2	19.2	4
Selenium	10000	390	0.80	0.3 U	0.27 U	0.29 U	0.31 U	0.25 U	0.26 U
Vanadium	14000	550	13.45	6.1	1.4	3.4	1.3	2.2	1.6
Zinc	610000	23000	6.66	13.3	0.65 U	148	11.1	56.7	7.7

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-4
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	10-SB04-02 SOIL	10-SB04-04 SOIL	10-SB05-02 SOIL	10-SB05-04 SOIL	85-SB01 SOIL	85-SB01-02 SOIL
TOTAL ANALYTES (mg/kg)									
Silver	10000	390	0.87	0.49 U	0.62 U	0.56 U	0.48 U	NA	0.54 U
Aluminum	1000000	78000	7375.30	3830	1040	6100	616	NA	4800
Arsenic	3.3	0.37	1.97	0.36	0.34 U	0.97	0.29 U	NA	0.96
Barium	140000	5500	14.20	18.1	2.5	8.5	1.7	NA	3.8
Calcium	NA	NA	391.51	76.7	29.3	43.4	18.5	NA	29.9
Cadmium	1000	39	0.71	0.53 U	0.67 U	0.6 U	0.51 U	NA	0.58 U
Chromium	10000	390	12.56	3.1	1.6	6.3	1.6	NA	5.5
Copper	76000	2900	2.42	1.5	0.6	1.5	0.41	NA	1.7
Iron	NA	NA	7252.08	1730	278	3590	235	NA	2750
Mercury	610	23	0.13	0.1 U	0.097 U	0.091 U	0.071 U	NA	0.092 U
Potassium	NA	NA	347.24	102 U	128 U	209	128	NA	214
Magnesium	NA	NA	260.72	40.7	38.4	147	35.9	NA	110
Manganese	10000	390	7.92	4.1	2	3.8	1.6	NA	2.1
Sodium	NA	NA	52.68	13.4	10.1	17.8	10.6	NA	12.1
Nickel	41000	1600	3.71	2.2 U	2.8 U	2.5 U	2.1 U	NA	2.6
Lead	NA	400	8.33	3.7	0.86	3.6	4.4	NA	3.9
Selenium	10000	390	0.80	0.31 U	0.3 U	0.29	0.26 U	NA	0.26 U
Vanadium	14000	550	13.45	4.3	2	10.4	1.7	NA	8
Zinc	610000	23000	6.66	0.67	0.74 U	2.5	0.57 U	NA	8.3

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-4
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	85-SB01-04 SOIL	85-SB02-02 SOIL	85-SB02-04 SOIL	85-SB03-02 SOIL	85-SB03-03 SOIL	85-SB04-02 SOIL
TOTAL ANALYTES (mg/kg)									
Silver	10000	390	0.87	0.42 U	0.53 U	0.42 U	0.48 U	0.42 U	0.48 U
Aluminum	1000000	78000	7375.30	702	10200	348	3840	592	3460
Arsenic	3.3	0.37	1.97	0.37	3	0.37 U	1.1	0.32	1.1
Barium	140000	5500	14.20	0.81	13.3	0.87	5.2	0.81	4.8
Calcium	NA	NA	391.51	127	82.1	10.5	93.2	9.5	19.7
Cadmium	1000	39	0.71	0.45 U	0.66	0.45 U	0.52 U	0.45 U	0.52 U
Chromium	10000	390	12.56	1.2	11.3	0.96	4.4	0.96	5.3
Copper	76000	2900	2.42	0.5	8.8	0.39	0.65	0.35	0.43
Iron	NA	NA	7252.08	398	9480	385	2520	980	2590
Mercury	610	23	0.13	0.11 U	0.61	0.1 U	0.096 U	0.11 U	0.11 U
Potassium	NA	NA	347.24	105	238	214	113	116	98.7 U
Magnesium	NA	NA	260.72	33	232	10.6	82.5	14.3	87.6
Manganese	10000	390	7.92	0.95	47.5	0.92	1.7	0.65	5.2
Sodium	NA	NA	52.68	11.6	17	8.6	10.4	4.7	10.2
Nickel	41000	1600	3.71	1.9 U	3	1.9 U	2.1 U	1.9 U	4.4
Lead	NA	400	8.33	2.7	40.6	1.2	4.5	1.2	2.7
Selenium	10000	390	0.80	0.28 U	0.35 U	0.33 U	0.26 U	0.23 U	0.27 U
Vanadium	14000	550	13.45	1.9	20	1.2	6.4	2	7.3
Zinc	610000	23000	6.66	6.3	187	4.4	7.3	1.1	6.1

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-4
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	SB [mg/kg]	85-SB04-03	85-SB05-02	85-SB05-03
Media	Soils	Soils	Background	SOIL	SOIL	SOIL
	[mg/kg]	[mg/kg]	2X (CTO 303)			
TOTAL ANALYTES (mg/kg)						
Silver	10000	390	0.87	0.45 U	0.56 U	0.52 U
Aluminum	1000000	78000	7375.30	475	5220	1540
Arsenic	3.3	0.37	1.97	0.98	1.6	0.38
Barium	140000	5500	14.20	0.78	7.5	2.2
Calcium	NA	NA	391.51	7.8	18.8	13.3
Cadmium	1000	39	0.71	0.48 U	0.6 U	0.56 U
Chromium	10000	390	12.56	2.2	6.1	2.3
Copper	76000	2900	2.42	0.35	1	0.38 U
Iron	NA	NA	7252.08	1420	3790	935
Mercury	610	23	0.13	0.15	0.1 U	0.088 U
Potassium	NA	NA	347.24	92.4 U	242	107 U
Magnesium	NA	NA	260.72	11.1	148	52.9
Manganese	10000	390	7.92	0.26	1.9	1.5
Sodium	NA	NA	52.68	8	11.2	8.4
Nickel	41000	1600	3.71	2 U	2.5 U	2.3 U
Lead	NA	400	8.33	2.2	4.8	1.7
Selenium	10000	390	0.80	0.31 U	0.32 U	0.32 U
Vanadium	14000	550	13.45	2.8	10.4	3.5
Zinc	610000	23000	6.66	1.8	1.5	1.5

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-5
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Tap Water [ug/L]	MCL Groundwater [ug/L]	NCWQS Groundwater [ug/L]	10-TW01 GW	10-TW01D GS-DIS	10-TW02 GW	10-TW02D GW-DIS	10-TW03 GW	10-TW03D GW-DIS
VOLATILES (ug/L)									
Acetone	3700	NC	700	10 U	NA	10 U	NA	33	NA
SEMIVOLATILES (ug/L)									
Diethylphthalate	29000	NC	5000	1 J	NA	10 U	NA	10 U	NA
bis(2-Ethylhexyl)phthalate	4.8	6	3	3 J	NA	1 J	NA	2 J	NA
PESTICIDE/PCBS (ug/L)									
Endosulfan II	220	NC	NA	0.1 U	NA	0.1 U	NA	0.08 J	NA

Notes:
ug/L - micrograms per liter
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard November 1993
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-5
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Tap Water [ug/L]	MCL Groundwater [ug/L]	NCWQS Groundwater [ug/L]	85-TW01 GW	85-TW01D GW-DIS	85-TW02 GW	85-TW02D GW-DIS	85-TW03 GW	85-TW03D GW-DIS
VOLATILES (ug/L)									
Acetone	3700	NA	700	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/L)									
Diethylphthalate	29000	NA	5000	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	4.8	6	3	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/L)									
Endosulfan II	220	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L - micrograms per liter
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard November 1993
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-6
DETECTED CONCENTRATIONS OF TOTAL AND DISSOLVED INORGANIC COMPOUNDS IN GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

	Tap Water [ug/L]	MCL Groundwater [ug/L]	NCWQS Groundwater [ug/L]	10-TW01 GW	10-TW01D GW-DIS	10-TW02 GW	10-TW02D GW-DIS	10-TW03 GW	10-TW03D GW-DIS
ANALYTES (ug/L)									
Aluminum	37000	NC	NC	10800	16.9 U	145000	117	75100	85.2
Arsenic	0.038	50	50	1.8 U	1.8 U	17.6	1.8 U	14.1	1.8 U
Barium	2600	2000	2000	98.2	45.3	185	13.4	190	17.1
Beryllium	0.016	4	NC	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Calcium	NC	NC	NC	30000	30100	39300	33000	10200	7440
Cadmium	18	5	5	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Cobalt	2200	NC	NC	2.2 U	2.2 U	2.2 U	2.2 U	3.9	2.2 U
Chromium	180	100	50	15.2	2.4 U	164	2.4 U	74.6	2.4 U
Copper	1400	1300	1000	2.7	1.9 U	36.1	1.9 U	30.2	1.9 U
Iron	NC	NC	300	2780	1650	57100	1910	26800	1710
Mercury	11	2	1.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Potassium	NC	NC	NC	3180	2830	6510	859	5210	1160
Magnesium	NC	NC	NC	2380	2300	7620	2740	4220	1210
Manganese	180	NC	50	32.9	28.7	127	27	92.2	38.5
Sodium	NC	NC	NC	6520	6650	6110	5960	4490	4210
Nickel	730	100	100	369	17.8	28	11.6 U	215	53.5
Lead	NC	15	15	5.1	1.4 U	48.4	3	45.9	1.4 U
Vanadium	260	NC	NC	11.6	2.6 U	388	2.6 U	175	2.6 U
Zinc	11000	NC	2100	6.5	3.1 U	326	10.4	58.2	13.2

Notes:
ug/L - micrograms per liter
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Bold type - laboratory QA/QC criteria outside limits
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard November 1993
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-6
DETECTED CONCENTRATIONS OF TOTAL AND DISSOLVED INORGANIC COMPOUNDS IN GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

	Tap Water [ug/L]	MCL Groundwater [ug/L]	NCWQS Groundwater [ug/L]	85-TW01 GW	85-TW01D GW-DIS	85-TW02 GW	85-TW02D GW-DIS	85-TW03 GW	85-TW03D GW-DIS
ANALYTES (ug/L)									
Aluminum	37000	NC	NC	159000	79.9	429000	175	223000	105
Arsenic	0.038	50	50	10.9	1.8 U	16.7	1.8 U	20.2	1.8 U
Barium	2600	2000	2000	242	13.8	548	8.3	377	15.4
Beryllium	0.016	4	NC	1.5 U	1.5 U	3.3	1.5 U	2.6	1.5 U
Calcium	NC	NC	NC	2420	766	6180	1940	2070	633
Cadmium	18	5	5	6.7	2.8 U	24.6	3.4	4.9	2.8 U
Cobalt	2200	NC	NC	8.6	2.2 U	20.3	2.2 U	7.1	2.2 U
Chromium	180	100	50	436	2.4 U	821	2.4 U	383	2.4 U
Copper	1400	1300	1000	138	2.2	173	1.9 U	55.4	1.9 U
Iron	NC	NC	300	119000	4770	498000	10500	180000	2600
Mercury	11	2	1.1	0.28	0.2 U	2.4	0.2 U	0.29	0.2 U
Potassium	NC	NC	NC	5480	686	16000	1400	8300	775
Magnesium	NC	NC	NC	5530	866	13700	477	11500	1790
Manganese	180	NC	50	395	55.1	1270	224	228	32.6
Sodium	NC	NC	NC	1850	1640	2660	1970	5580	4520
Nickel	730	100	100	4550	206	206	11.6 U	53.3	11.6 U
Lead	NC	15	15	207	1.4 U	512	1.4 U	380	2.2
Vanadium	260	NC	NC	322	2.6 U	908	2.6 U	436	2.6 U
Zinc	11000	NC	2100	485	58.8	3970	473	93.1	4.6

Notes:
ug/L - micrograms per liter
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Bold type - laboratory QA/QC criteria outside limits
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard November 1993
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-7
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01	12SS02
MATRIX	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
VOLATILES (ug/kg)									
Acetone	200000000	7800000	16 B	13 B	11 B	19	11 U	12 U	11 U
SEMIVOLATILES (ug/kg)									
1,2-Dichlorobenzene	180000000	7000000	340 U	340 U	350 U	350 U	350 U	380 U	370 U
Naphthalene	82000000	3100000	340 U	340 U	350 U	350 U	420	380 U	370 U
2-Methylnaphthalene	82000000	3100000	340 U	340 U	350 U	350 U	270 J	380 U	370 U
Acenaphthylene	61000000	2300000	40 J	340 U	71 J	52 J	62 J	380 U	370 U
Acenaphthene	120000000	4700000	340 U	340 U	370	58 J	2500	380 U	370 U
Dibenzofuran	8200000	310000	340 U	340 U	93 J	350 U	720	380 U	370 U
Fluorene	82000000	3100000	340 U	340 U	190 J	350 U	1500	380 U	370 U
Phenanthrene	61000000	2300000	120 J	42 J	2300	560	15000	380 U	370 U
Anthracene	610000000	23000000	47 J	340 U	570	190 J	3100	380 U	370 U
Fluoranthene	82000000	3100000	760	350	3500	1400	23000	380 U	370 U
Pyrene	61000000	2300000	950	390	4700	1700	21000	380 U	370 U
Butylbenzylphthalate	410000000	16000000	340 U	340 U	47 J	200 J	120 J	380 U	370 U
Benzo(a)anthracene	7800	880	370	150 J	2100	890	11000	380 U	370 U
Chrysene	780000	88000	670	280 J	2400	1300	13000	380 U	370 U
bis(2-Ethylhexyl)phthalate	410000	46000	54 J	340 U	150 J	100 J	350 U	39 J	370 U
Benzo(b)fluoranthene	7800	880	760	280 J	3800	1700	14000	380 U	370 U
Benzo(k)fluoranthene	78000	8800	310 J	120 J	1100	640	3500	380 U	370 U
Benzo(a)pyrene	780	88	340	130 J	2000	920	8200	380 U	370 U
Indeno(1,2,3-cd)pyrene	7800	880	330 J	91 J	930	630	4200	380 U	370 U
Dibenzo(a,h)anthracene	780	88	77 J	340 U	220 J	140 J	1100	380 U	370 U
Benzo(g,h,i)perylene	61000000	2300000	330 J	340 U	820	580	170 J	380 U	370 U

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
B - Present in blank
J - Present below detection limit
S - Method of Standard Addition
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-7
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01	12SS02
MATRIX	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PESTICIDE/PCBS (ug/kg)									
Heptachlor epoxide	630	70	41 U	1.7	10	6.2	49	NA	NA
Dieldrin	360	40	82 U	8.2 U	43 U	41 U	7.4 J	NA	NA
4,4'-DDE	17000	1900	82 U	8.2 U	15	16	53	NA	NA
4,4'-DDD	24000	2700	82 U	8.2 U	4.3 J	41 U	9.5	NA	NA
4,4'-DDT	17000	1900	13 J	8.2 U	8.5 J	10	16	NA	NA
gamma-Chlordane	4400	490	410 U	41 U	210 U	210 U	30	NA	NA
Aroclor-1260	740	83	820 U	82 U	430 U	410 U	420 U	91 U	91 U
PCDD/PCDF (ug/kg)									
Total HXCDD	NC	NC	0.42 U	0.31 U	0.82 JS	0.75 JS	0.76 JS	NA	NA
Total PECDF	NC	NC	0.44 U	0.25 U	0.16 JS	0.15 U	0.18 JS	NA	NA
Total HXCDF	NC	NC	0.60 U	0.30 U	1.1 JS	0.93 JS	0.94 J	NA	NA
TPH (ug/kg)									
Diesel Fuel	NC	NC	NA	NA	44 U	4.4 U	44 U	47 U	47 U

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
B - Present in blank
J - Present below detection limit
S - Method of Standard Addition
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-7
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	14SS01	14SS02	14SS03
MATRIX	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL
VOLATILES (ug/kg)					
Acetone	200000000	7800000	11 U	60 U	12 U
SEMIVOLATILES (ug/kg)					
1,2-Dichlorobenzene	180000000	7000000	110 J	120 J	120 J
Naphthalene	82000000	3100000	360 U	390 U	380 U
2-Methylnaphthalene	82000000	3100000	360 U	390 U	380 U
Acenaphthylene	61000000	2300000	360 U	390 U	380 U
Acenaphthene	120000000	4700000	360 U	390 U	380 U
Dibenzofuran	8200000	310000	360 U	390 U	380 U
Fluorene	82000000	3100000	360 U	390 U	380 U
Phenanthrene	61000000	2300000	360 U	390 U	380 U
Anthracene	610000000	23000000	360 U	390 U	380 U
Fluoranthene	82000000	3100000	360 U	200 J	380 U
Pyrene	61000000	2300000	360 U	380 J	41 J
Butylbenzylphthalate	410000000	16000000	270 J	220 J	260 J
Benzo(a)anthracene	7800	880	360 U	68 J	380 U
Chrysene	780000	88000	360 U	76 J	380 U
bis(2-Ethylhexyl)phthalate	410000	46000	360 U	390 U	380 U
Benzo(b)fluoranthene	7800	880	360 U	390 U	380 U
Benzo(k)fluoranthene	78000	8800	360 U	390 U	380 U
Benzo(a)pyrene	780	88	360 U	390 U	380 U
Indeno(1,2,3-cd)pyrene	7800	880	360 U	61 J	380 U
Dibenzo(a,h)anthracene	780	88	360 U	390 U	380 U
Benzo(g,h,i)perylene	61000000	2300000	360 U	100 J	380 U

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
B - Present in blank
J - Present below detection limit
S - Method of Standard Addition
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-7
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	14SS01	14SS02	14SS03
MATRIX	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL
PESTICIDE/PCBS (ug/kg)					
Heptachlor epoxide	630	70	NA	NA	NA
Dieldrin	360	40	NA	NA	NA
4,4'-DDE	17000	1900	NA	NA	NA
4,4'-DDD	24000	2700	NA	NA	NA
4,4'-DDT	17000	1900	NA	NA	NA
gamma-Chlordane	4400	490	NA	NA	NA
Aroclor-1260	740	83	14	15	22
PCDD/PCDF (ug/kg)					
Total HXCDD	NC	NC	NA	NA	NA
Total PECDF	NC	NC	NA	NA	NA
Total HXCDF	NC	NC	NA	NA	NA
TPH (ug/kg)					
Diesel Fuel	NC	NC	44 U	2300	48 U

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
B - Present in blank
J - Present below detection limit
S - Method of Standard Addition
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 5-8
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01	12SS02	14SS01	14SS02	14SS03
MATRIX	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	[mg/kg]	[mg/kg]	96.8	96.4	93.3	95.3	94.2	87.2	88.0	92.3	84.1	85.5
ANALYTES (mg/kg)												
Arsenic	3.3	0.37	2.1	2.9	3.6	6.5	4.8	NA	NA	NA	NA	NA
Barium	140000	5500	69.3	19.2	50.3	72.2	48.0	NA	NA	NA	NA	NA
Cadmium	1000	39	1.1	0.28	1.3	1.1	1.2	NA	NA	NA	NA	NA
Cobalt	120000	4700	10.0	4.6	8.7	14.2	7.0	NA	NA	NA	NA	NA
Chromium	10000	390	35.3	7.1	17.7	18.1	20.1	NA	NA	NA	NA	NA
Copper	76000	2900	177	26.5	80.0	124	59.5	NA	NA	NA	NA	NA
Mercury	610	23	12.9	0.28	0.49	0.84	0.18	NA	NA	NA	NA	NA
Nickel	41000	1600	9.6	2.6	7.4	10.4	6.5	NA	NA	NA	NA	NA
Lead	NA	400	200	10.9	129	63.2	102	NA	NA	NA	NA	NA
Selenium	10000	390	0.096 U	0.091 U	0.77 U	0.16	0.77 U	NA	NA	NA	NA	NA
Vanadium	14000	550	62.6	28.1	60.5	83.7	52.8	NA	NA	NA	NA	NA
Zinc	610000	23000	210	25.5	167	119	167	NA	NA	NA	NA	NA

Notes:
mg/kg - milligrams per kilogram
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-9
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN SUBSURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID MATRIX	Industrial Soils [ug/kg]	Residential Soils [ug/kg]	6SB01 SOIL	6SB02 SOIL	AOCBSB01-01 SOIL	AOCBSB02 SOIL	AOCBSB03 SOIL
VOLATILES (ug/kg)							
Acetone	200000000	7800000	14	11 U	11 U	11 U	11 U
SEMIVOLATILES (ug/kg)							
Phenol	1.00E+09	47000000	47 J	370 U	360 U	360 U	360 U
Acenaphthene	120000000	4700000	350 U	370 U	360 U	360 U	140 J
Dibenzofuran	8200000	310000	350 U	370 U	360 U	360 U	37 J
Fluorene	82000000	3100000	350 U	370 U	360 U	360 U	87 J
Phenanthrene	61000000	2300000	350 U	370 U	360 U	360 U	800
Anthracene	610000000	23000000	350 U	370 U	360 U	360 U	190 J
Fluoranthene	82000000	3100000	87 J	370 U	360 U	64 J	1300
Pyrene	61000000	2300000	120 J	370 U	360 U	83 J	1400
Benzo(a)anthracene	7800	880	62 J	370 U	360 U	45 J	610
Chrysene	780000	88000	91 J	370 U	360 U	74 J	720
Benzo(b)fluoranthene	7800	880	110 J	370 U	360 U	110 J	750
Benzo(k)fluoranthene	78000	8800	350 U	370 U	360 U	51 J	380
Benzo(a)pyrene	780	88	57 J	370 U	360 U	54 J	610
Indeno(1,2,3-cd)pyrene	7800	880	45 J	370 U	360 U	360 U	380
Dibenzo(a,h)anthracene	780	88	350 U	370 U	360 U	360 U	94 J
Benzo(g,h,i)perylene	61000000	2300000	47 J	370 U	360 U	360 U	350 J
1,4-Dioxane	520000	58000	1400 U	1500 U	1500 U	1400 U	1400 J

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
E - Exceeds linear calibration range
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-10
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN SUBSURFACE SOILS
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID	Industrial	Residential	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	[mg/kg]	[mg/kg]	94.6	87.7	90.2	93.0	92.3
TOTAL ANALYTES (mg/kg)							
Arsenic	3.3	0.37	1.1 U	1.4	1.4	0.46	2.0
Barium	140000	5500	80.2	33.6	98.8	81.1	52.8
Cadmium	1000	39	0.56	0.30	0.69	1.0	0.51
Cobalt	120000	4700	14.3	9.0	12.3	13.6	15.0
Chromium	10000	390	15.0	7.9	9.9	15.5	19.5
Copper	76000	2900	124	22.7	80.3	96.4	94.0
Mercury	610	23	2.2	0.084 U	0.11 U	0.14	0.077 U
Nickel	41000	1600	43.6	17.3	34.1	83.6	54.5
Lead	NA	400	32.6	1.3	72.0	11.5	13.8
Tin	1000000	47000	1.5	2.8	1.7 U	1.7 U	1.6 U
Vanadium	14000	550	89.5	43.1	76.6	79.2	82.9
Zinc	610000	23000	75.6	36.7	93.5	76.1	59.6

Notes:
mg/kg - milligrams per kilogram
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-11
DETECTED CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUNDWATER
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID MATRIX	Tap Water [ug/L]	MCL Groundwater [ug/L]	AOCBHP01 WATER	AOCBHP02 WATER	AOCBHP03 WATER
SEMIVOLATILES (ug/L)					
bis(2-Ethylhexyl)phthalate	4.8	6	10 U	1 J	3 J

Notes:
ug/L - micrograms per liter
U - Analyzed, not detected
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard November 1993
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 5-12
DETECTED CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUNDWATER
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SAMPLE ID MATRIX	Tap Water [ug/L]	MCL Groundwater [ug/L]	AOCBHP01 WATER	AOCBHP02 WATER	AOCBHP03 WATER
ANALYTES (ug/L)					
Barium	2600	2000	16.7	71.4	7.3
Cobalt	2200	NC	2.2 U	4.6	2.2 U
Chromium	180	100	2.4 U	4.0	4.9
Copper	1400	1300	9.6	54.4	4.1
Lead	NC	15	7.7	10.4	2.4
Selenium	180	50	1.6 U	1.6 U	3.5
Vanadium	260	NC	10.2	29.4	42.3
Zinc	11000	NC	6.3	21.9	5.2

Notes:
ug/L - micrograms per liter
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
MCL - Maximum Contaminant Level, Federal Register (May 1995)
Tap Waterstrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

SECTION 6.0 TABLES

TABLE 6-1

ORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [ug/kg]	Residential Soils [ug/kg]	10-SB01-00 SOIL	10-SB02-00 SOIL	10-SB03-00 SOIL	10-SB04-00 SOIL	10-SB05-00 SOIL
SEMIVOLATILES (ug/kg)							
Benzo(a)anthracene	7800	880	170 J	390 U	4500 E	440 U	450 U
Benzo(b)fluoranthene	7800	880	260 J	390 U	4600 E	440 U	450 U
Benzo(a)pyrene	780	88	190 J	390 U	3500 E	440 U	450 U
Indeno(1,2,3-cd)pyrene	7800	880	120 J	390 U	2800	440 U	450 U
Dibenzo(a,h)anthracene	780	88	410 U	390 U	630	440 U	450 U

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
E - Exceeds linear range of calibration
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-1

ORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [ug/kg]	Residential Soils [ug/kg]	85-SB01 SOIL	85-SB01-00 SOIL	85-SB02-00 SOIL	85-SB03-00 SOIL	85-SB04-00 SOIL	85-SB05-00 SOIL
SEMIVOLATILES (ug/kg)								
Benzo(a)anthracene	7800	880	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7800	880	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	780	88	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	7800	880	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	780	88	NA	NA	NA	NA	NA	NA

Notes:
ug/kg - micrograms per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
E - Exceeds linear range of calibration
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-2

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. / Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SS [mg/kg] Background 2X (CTO 303)	10-SB01-00 SOIL	10-SB02-00 SOIL	10-SB03-00 SOIL	10-SB04-00 SOIL	10-SB05-00 SOIL	85-SB01 SOIL
TOTAL ANALYTES (mg/kg)									
Arsenic	3.3	0.37	1.305	0.36 U	0.59	0.32 U	0.43 U	0.42 U	NA
Barium	140000	5500	17.36	4.1	18.1	3.7	16.2	3.5	NA
Beryllium	1.3	0.15	0.205	0.27 U	0.39	0.35 U	0.37 U	0.34 U	NA
Calcium	NC	NC	1396.788	148	803	225	889	39.7	NA
Cadmium	1000	39	0.688	0.51 U	0.54 U	0.65 U	0.7 U	0.64 U	NA
Cobalt	120000	4700	1.923	0.4 U	0.88	0.54	0.55 U	0.5 U	NA
Chromium	10000	390	6.693	1.8	2.6	2.1	0.95	0.97	NA
Copper	76000	2900	7.2	1.3	3.2	1.4	2.4	1	NA
Iron	NC	NC	3755.063	794	1990	604	384	1040	NA
Mercury	610	23	0.094	0.11 U	0.12 U	0.1 U	0.11 U	0.1 U	NA
Potassium	NC	NC	199.61	144	129	146	213	121 U	NA
Manganese	10000	390	18.497	13.3	34.6	3.2	3.9	2.8	NA
Sodium	NC	NC	59.298	12.5	29.4	14.1	18.6	14.6	NA
Nickel	41000	1600	3.434	2.1 U	2.3 U	2.7 U	2.9 U	2.6 U	NA
Lead	NC	400	23.749	28	48.5	25.7	12.1	2.1	NA
Vanadium	14000	550	11.628	2.4	5	2.9	3	3.5	NA
Zinc	610000	23000	13.88	8.6	29.2	10.1	7.6	0.75	NA

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SS Background - MCB Camp Lejeune base background, updated through CTO 303 (Aug. 1995)

TABLE 6-2

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SS [mg/kg] Background 2X (CTO 303)	85-SB01-00 SOIL	85-SB02-00 SOIL	85-SB03-00 SOIL	85-SB04-00 SOIL	85-SB05-00 SOIL
TOTAL ANALYTES (mg/kg)								
Arsenic	3.3	0.37	1.305	1.5	76.8	0.63	0.55	0.55
Barium	140000	5500	17.36	19.2	134	9.5	9.4	6.9
Beryllium	1.3	0.15	0.205	0.31 U	0.42 U	0.26 U	0.32 U	0.34 U
Calcium	NC	NC	1396.788	580	823	91	196	91.9
Cadmium	1000	39	0.688	2.1	47.1	0.49 U	0.61 U	0.63 U
Cobalt	120000	4700	1.923	0.45 U	17.3	0.38 U	0.48 U	0.5 U
Chromium	10000	390	6.693	2.3	147	2.8	3.2	3.3
Copper	76000	2900	7.2	89.2	1870	2	8.1	0.88
Iron	NC	NC	3755.063	4590	339000	1570	1990	1480
Mercury	610	23	0.094	2.1	70.7	0.35	0.12 U	0.12 U
Potassium	NC	NC	199.61	214	456	159	158	238
Manganese	10000	390	18.497	739	19700	19.2	218	3.8
Sodium	NC	NC	59.298	12.9	69	9.7	12.5	10.5
Nickel	41000	1600	3.434	2.4 U	117	2 U	2.5 U	3.5
Lead	NC	400	23.749	143	3030	20.5	4.9	10.8
Vanadium	14000	550	11.628	4.8	13.9	4.1	5.1	5.9
Zinc	610000	23000	13.88	1330	63900	101	359	5.2

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SS Background - MCB Camp Lejeune base background, updated through CTO 303 (Aug. 1995)

ORGANIC COMPOUNDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id.	Industrial	Residential	10-SB01-01	10-SB01-02	10-SB02-01	10-SB02-02	10-SB03-01	10-SB03-02	10-SB04-02
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Benzo(a)pyrene	780	88	360 U	350 U	360 U	410 U	350 J	400 U	370 U

Sample Id.	Industrial	Residential	10-SB04-04	10-SB05-02	10-SB05-04	85-SB01	85-SB01-02	85-SB01-04	85-SB02-02
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Benzo(a)pyrene	780	88	430 U	380 U	350 U	NA	NA	NA	NA

Sample Id.	Industrial	Residential	85-SB02-04	85-SB03-02	85-SB03-03	85-SB04-02	85-SB04-03	85-SB05-02	85-SB05-03
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	[ug/kg]	[ug/kg]							
SEMIVOLATILES (ug/kg)									
Benzo(a)pyrene	780	88	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-4

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	10-SB01-01 SOIL	10-SB01-02 SOIL	10-SB02-01 SOIL	10-SB02-02 SOIL	10-SB03-01 SOIL	10-SB03-02 SOIL
TOTAL ANALYTES (mg/kg)									
Aluminum	1000000	78000	7375.30	4680	717	2290	782	964	641
Arsenic	3.3	0.37	1.97	1.2	0.3 U	0.67	0.35 U	0.28 U	0.29 U
Barium	140000	5500	14.20	15.4	3.2	11.2	1.8	6.4	2
Calcium	NC	NC	391.51	1550	103	1250	79.4	247	66.8
Copper	76000	2900	2.42	1.8	0.75	6.2	0.38	2.1	0.59
Iron	NC	NC	7252.08	2110	165	2400	404	950	161
Mercury	610	23	0.13	0.09 U	0.09 U	0.088 U	0.083 U	0.11 U	0.086 U
Manganese	10000	390	7.92	9.1	1.9	23.5	2.5	6.3	1.3
Nickel	41000	1600	3.71	2.4 U	2.4 U	2.1 U	2.2 U	2.4 U	2.7 U
Lead	NC	400	8.33	10.7	1.1	99.8	2	19.2	4
Vanadium	14000	550	13.45	6.1	1.4	3.4	1.3	2.2	1.6
Zinc	610000	23000	6.66	13.3	0.65 U	148	11.1	56.7	7.7

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 6-4

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	10-SB04-02 SOIL	10-SB04-04 SOIL	10-SB05-02 SOIL	10-SB05-04 SOIL	85-SB01 SOIL	85-SB01-02 SOIL
TOTAL ANALYTES (mg/kg)									
Aluminum	1000000	78000	7375.30	3830	1040	6100	616	NA	4800
Arsenic	3.3	0.37	1.97	0.36	0.34 U	0.97	0.29 U	NA	0.96
Barium	140000	5500	14.20	18.1	2.5	8.5	1.7	NA	3.8
Calcium	NC	NC	391.51	76.7	29.3	43.4	18.5	NA	29.9
Copper	76000	2900	2.42	1.5	0.6	1.5	0.41	NA	1.7
Iron	NC	NC	7252.08	1730	278	3590	235	NA	2750
Mercury	610	23	0.13	0.1 U	0.097 U	0.091 U	0.071 U	NA	0.092 U
Manganese	10000	390	7.92	4.1	2	3.8	1.6	NA	2.1
Nickel	41000	1600	3.71	2.2 U	2.8 U	2.5 U	2.1 U	NA	2.6
Lead	NC	400	8.33	3.7	0.86	3.6	4.4	NA	3.9
Vanadium	14000	550	13.45	4.3	2	10.4	1.7	NA	8
Zinc	610000	23000	6.66	0.67	0.74 U	2.5	0.57 U	NA	8.3

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 6-4

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	85-SB01-04 SOIL	85-SB02-02 SOIL	85-SB02-04 SOIL	85-SB03-02 SOIL	85-SB03-03 SOIL	85-SB04-02 SOIL
TOTAL ANALYTES (mg/kg)									
Aluminum	1000000	78000	7375.30	702	10200	348	3840	592	3460
Arsenic	3.3	0.37	1.97	0.37	3	0.37 U	1.1	0.32	1.1
Barium	140000	5500	14.20	0.81	13.3	0.87	5.2	0.81	4.8
Calcium	NC	NC	391.51	127	82.1	10.5	93.2	9.5	19.7
Copper	76000	2900	2.42	0.5	8.8	0.39	0.65	0.35	0.43
Iron	NC	NC	7252.08	398	9480	385	2520	980	2590
Mercury	610	23	0.13	0.11 U	0.61	0.1 U	0.096 U	0.11 U	0.11 U
Manganese	10000	390	7.92	0.95	47.5	0.92	1.7	0.65	5.2
Nickel	41000	1600	3.71	1.9 U	3	1.9 U	2.1 U	1.9 U	4.4
Lead	NC	400	8.33	2.7	40.6	1.2	4.5	1.2	2.7
Vanadium	14000	550	13.45	1.9	20	1.2	6.4	2	7.3
Zinc	610000	23000	6.66	6.3	187	4.4	7.3	1.1	6.1

Notes:
mg/kg - milligrams per kilogram
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)
SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 6-4

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Industrial Soils [mg/kg]	Residential Soils [mg/kg]	SB [mg/kg] Background 2X (CTO 303)	85-SB04-03 SOIL	85-SB05-02 SOIL	85-SB05-03 SOIL
TOTAL ANALYTES (mg/kg)						
Aluminum	1000000	78000	7375.30	475	5220	1540
Arsenic	3.3	0.37	1.97	0.98	1.6	0.38
Barium	140000	5500	14.20	0.78	7.5	2.2
Calcium	NC	NC	391.51	7.8	18.8	13.3
Copper	76000	2900	2.42	0.35	1	0.38 U
Iron	NC	NC	7252.08	1420	3790	935
Mercury	610	23	0.13	0.15	0.1 U	0.088 U
Manganese	10000	390	7.92	0.26	1.9	1.5
Nickel	41000	1600	3.71	2 U	2.5 U	2.3 U
Lead	NC	400	8.33	2.2	4.8	1.7
Vanadium	14000	550	13.45	2.8	10.4	3.5
Zinc	610000	23000	6.66	1.8	1.5	1.5

Notes:

mg/kg - milligrams per kilogram

NC - No criteria available

NA - Not analyzed

U - Analyzed, not detected

Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

SB Background - MCB Camp Lejeune base background, updated through CTO-0303 (August 1995)

TABLE 6-5

INORGANIC COMPOUNDS (TOTAL AND DISSOLVED) EXCEEDING CRITERIA - GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Tap Water [ug/L]	MCL [ug/L]	NCWQS [ug/L]	10-TW01 GW	10-TW01D GW-DIS	10-TW02 GW	10-TW02D GW-DIS
ANALYTES (ug/L)							
Aluminum	37000	NC	NC	10800	16.9 U	145000	117
Arsenic	0.038	50	50	1.8 U	1.8 U	17.6	1.8 U
Beryllium	0.016	4	NC	1.5 U	1.5 U	1.5 U	1.5 U
Cadmium	18	5	5	2.8 U	2.8 U	2.8 U	2.8 U
Chromium	180	100	50	15.2	2.4 U	184	2.4 U
Iron	NC	NC	300	2780	1650	57100	1910
Mercury	11	2	1.1	0.2 U	0.2 U	0.2 U	0.2 U
Manganese	180	NC	50	32.9	28.7	127	27
Nickel	730	100	100	369	17.8	28	11.6 U
Lead	NC	15	15	5.1	1.4 U	48.4	3
Vanadium	260	NC	NC	11.6	2.6 U	388	2.6 U
Zinc	11000	NC	2100	6.5	3.1 U	326	10.4

Notes:

ug/L - micrograms per liter

GW - Groundwater

DIS - Dissolved fraction

NC - No criteria available

NA - Not analyzed

U - Analyzed, not detected

Tap Water - Risk Based Concentration (March 1995)

MCL - Maximum Contaminant Level, Federal Register (May 1995)

NCWQS - North Carolina Water Quality Standard (November 1993)

TABLE 6-5

INORGANIC COMPOUNDS (TOTAL AND DISSOLVED) EXCEEDING CRITERIA - GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Tap Water [ug/L]	MCL [ug/L]	NCWQS [ug/L]	10-TW03 GW	10-TW03D GW-DIS	85-TW01 GW	85-TW01D GW-DIS
ANALYTES (ug/L)							
Aluminum	37000	NC	NC	75100	85.2	159000	79.9
Arsenic	0.038	50	50	14.1	1.8 U	10.9	1.8 U
Beryllium	0.016	4	NC	1.5 U	1.5 U	1.5 U	1.5 U
Cadmium	18	5	5	2.8 U	2.8 U	6.7	2.8 U
Chromium	180	100	50	74.6	2.4 U	436	2.4 U
Iron	NC	NC	300	26800	1710	119000	4770
Mercury	11	2	1.1	0.2 U	0.2 U	0.28	0.2 U
Manganese	180	NC	50	92.2	38.5	395	55.1
Nickel	730	100	100	215	53.5	4550	206
Lead	NC	15	15	45.9	1.4 U	207	1.4 U
Vanadium	260	NC	NC	175	2.6 U	322	2.6 U
Zinc	11000	NC	2100	58.2	13.2	485	58.8

Notes:
ug/L - micrograms per liter
GW - Groundwater
DIS - Dissolved fraction
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Tap Water - Risk Based Concentration (March 1995)
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard (November 1993)

TABLE 6-5

INORGANIC COMPOUNDS (TOTAL AND DISSOLVED) EXCEEDING CRITERIA - GROUNDWATER
SITES 10 AND 85
MCB CAMP LEJEUNE, JACKSONVILLE, NC

Sample Id. Media	Tap Water [ug/L]	MCL [ug/L]	NCWQS [ug/L]	85-TW02 GW	85-TW02D GW-DIS	85-TW03 GW	85-TW03D GW-DIS
ANALYTES (ug/L)							
Aluminum	37000	NC	NC	429000	175	223000	105
Arsenic	0.038	50	50	16.7	1.8 U	20.2	1.8 U
Beryllium	0.016	4	NC	3.3	1.5 U	2.8	1.5 U
Cadmium	18	5	5	24.6	3.4	4.9	2.8 U
Chromium	180	100	50	821	2.4 U	383	2.4 U
Iron	NC	NC	300	498000	10500	180000	2600
Mercury	11	2	1.1	2.4	0.2 U	0.29	0.2 U
Manganese	180	NC	50	1270	224	228	32.6
Nickel	730	100	100	206	11.6 U	53.3	11.6 U
Lead	NC	15	15	512	1.4 U	380	2.2
Vanadium	260	NC	NC	908	2.6 U	436	2.6 U
Zinc	11000	NC	2100	3970	473	93.1	4.6

Notes:
ug/L - micrograms per liter
GW - Groundwater
DIS - Dissolved fraction
NC - No criteria available
NA - Not analyzed
U - Analyzed, not detected
Tap Water - Risk Based Concentration (March 1995)
MCL - Maximum Contaminant Level, Federal Register (May 1995)
NCWQS - North Carolina Water Quality Standard (November 1993)

TABLE 6-6

ORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

Sample Id.	Industrial	Residential	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03
Media	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL	SOIL	SOIL
SEMIVOLATILES (ug/kg)							
Benzo(a)anthracene	7800	880	370	150 J	2100	890	11000
Benzo(b)fluoranthene	7800	880	760	280 J	3800	1700	14000
Benzo(a)pyrene	780	88	340	130 J	2000	920	8200
Indeno(1,2,3-cd)pyrene	7800	880	330 J	91 J	930	630	4200
Dibenzo(a,h)anthracene	780	88	77 J	340 U	220 J	140 J	1100

Sample Id.	Industrial	Residential	12SS01	12SS02	14SS01	14SS02	14SS03
Media	Soils [ug/kg]	Soils [ug/kg]	SOIL	SOIL	SOIL	SOIL	SOIL
SEMIVOLATILES (ug/kg)							
Benzo(a)anthracene	7800	880	380 U	370 U	360 U	68 J	380 U
Benzo(b)fluoranthene	7800	880	380 U	370 U	360 U	390 U	380 U
Benzo(a)pyrene	780	88	380 U	370 U	360 U	390 U	380 U
Indeno(1,2,3-cd)pyrene	7800	880	380 U	370 U	360 U	61 J	380 U
Dibenzo(a,h)anthracene	780	88	380 U	370 U	360 U	390 U	380 U

Notes:
ug/kg - micrograms per kilogram
NA - Not analyzed
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-7

INORGANIC COMPOUNDS EXCEEDING CRITERIA - SURFACE SOIL
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

Sample Id.	Industrial	Residential	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	[mg/kg]	[mg/kg]	96.8	96.4	93.3	95.3	94.2
ANALYTES (mg/kg)							
Arsenic	3.3	0.37	2.1	2.9	3.6	5.5	4.8

Sample Id.	Industrial	Residential	12SS01	12SS02	14SS01	14SS02	14SS03
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	[mg/kg]	[mg/kg]	87.2	88.0	92.3	84.1	85.5
ANALYTES (mg/kg)							
Arsenic	3.3	0.37	NA	NA	NA	NA	NA

Notes:
mg/kg - milligrams per kilogram
NA - Not analyzed
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-8

ORGANIC COMPOUDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITE 11
NAVAL STATION ROOSEVELT ROADS. PUERTO RICO

Sample Id. Media	Industrial Soils [ug/kg]	Residential Soils [ug/kg]	6SB01 SOIL	6SB02 SOIL	AOCBSB01-01 SOIL	AOCBSB02 SOIL	AOCBSB03 SOIL
SEMIVOLATILES (ug/kg)							
Benzo(a)pyrene	780	88	57 J	370 U	360 U	54 J	610
Dibenzo(a,h)anthracene	780	88	350 U	370 U	360 U	360 U	94 J

Notes:
ug/kg - micrograms per kilogram
U - Analyzed, not detected
J - Present below detection limit
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

TABLE 6-9

INORGANIC COMPOUDS EXCEEDING CRITERIA - SUBSURFACE SOIL
SITE 11
NAVAL STATION ROOSEVELT ROADS. PUERTO RICO

Sample Id.	Industrial	Residential	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
Media	Soils	Soils	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	[mg/kg]	[mg/kg]	94.6	87.7	90.2	93.0	92.3
TOTAL ANALYTES (mg/kg)							
Arsenic	3.3	0.37	1.1 U	1.4	1.4	0.46	2.0

Notes:
mg/kg - milligrams per kilogram
U - Analyzed, not detected
Industrial/Residential - Industrial and Residential Risk Based Concentrations (March 1995)

APPENDIX A
ANALYTICAL PROGRAM

APPENDIX A-1
COC DOCUMENTATION

C.O.C. # 34801

CTO - 348

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Client BAKER ENVIRONMENTAL INC

Est. Final Proj. Sampling Date

Work Order # CTO - 0348

Project Contact/Phone #

AD Project Manager

QC Del TAT

Date Rec'd Date Due

Account #

Refrigerator #	
#/Type Container	Liquid
	Solid
Volume	Liquid
	Solid
Preservatives	[illegible]

ANALYSES REQUESTED →

ORGANIC: VOA, BNA, Pest PCB, Herb

INORG: Metal, CN

MATRIX CODES:
- S - Soil
- SE - Sediment
- SO - Solid
- SL - Sludge
- W - Water
- O - Oil
- A - Air
- DS - Drum Solids
- DL - Drum Liquids
- L - EP/TCLP Leachate
- WI - Wipe
- X - Other
- F - Fish

WESTON Analytics Use Only

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Total metals	Diss. metal	Cyanide	TCLP metals	Reactivity
	85-TW01			Liquid	9/27/95	1045	X	X	X		
	85-TW02					1320	X	X	X		
	85-TW03					1530	X	X	X		
	85-SB01			Solid	9/27/95	1020				X	X
	85-SB01-00					0935	X		X		
	85-SB01-02					0950	X		X		
	85-SB01-04					1010	X		X		
	85-SB02-00					1100	X		X		
	85-SB02-02					1115	X		X		
	85-SB02-04					1130	X		X		

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible signature]		9/28/95	1600

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ______
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

C.O.C. = 34801

C10-0345

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page 2 of 2

Client: BAKER ENVIROMENTAL INC

Est. Final Proj. Sampling Date:

Work Order #: C10-0345

Project Contact/Phone #: JERI TARKESER/412-269-6000

AD Project Manager:

QC: Del: TAT:

Date Rec'd: Date Due:

Account #:

Refrigerator #

#/Type Container	Liquid / Solid
Volume	Liquid / Solid
Preservatives	

ANALYSES REQUESTED →

ORGANIC: VOA, BNA, Pest/PCB, Herb

INORG: Metal, CN

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
	95-SB03-00			SOLID	9/27/95	1154
	95-SB03-02					1205
	95-SB03-03					1220
	95-SB04-00					1240
	95-SB04-02					1250
	95-SB04-03					1300
	95-SB05-00					1435
	95-SB05-02					1440
	95-SB05-03					1450

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7 91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# _____ Cooler# _____ 381-596a

COC # 3804 C10 547

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 2

Client Baker Environmental

Est. Final Proj. Sampling Date

Work Order # CTO 0348

Project Contact/Phone # Jeri Trageser (412) 269-6000

AD Project Manager

QC ____ Del ____ TAT ____

Date Rec'd ____ Date Due ____

Account #

Refrigerator #

#/Type Container	Liquid																	
	Solid																	
Volume	Liquid																	
	Solid																	
Preservatives																		

ANALYSES REQUESTED →

ORGANIC								INORG										
VOA	BNA	Pest/PCB	Herb					Metal	CN									

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓)		Matrix	Date Collected	Time Collected	WESTON Analytics Use Only										
			MS	MSD				VOA	SVOA	Pest/PCB	TAL Metals	Cyanide						
S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids L - EP/TCLP Leachate WI - Wipe X - Other F - Fish		10-SB01-00			S	9/26/95	1535	X	X	X	X	X						
		10-SB01-01			S	9/26/95	1546	X	X	X	X	X						
		10-SB01-02			S	9/26/95	1550	X	X	X	X	X						
		10-SB02-00			S	9/26/95	1620	X	X	X	X	X						
		10-SB02-01			S	9/26/95	1630	X	X	X	X	X						
		10-SB02-02			S	9/26/95	1640	X	X	X	X	X						
		10-SB03-00			S	9/26/95	1440	X	X	X	X	X						
		10-SB03-01			S	9/26/95	1443	X	X	X	X	X						
		10-SB03-02			S	9/26/95	1448	X	X	X	X	X						
		10-SB04-00			S	9/26/95	1640	X	X	X	X	X						

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

7 Day turn

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
E. Trageser		9/28/95	1600

Relinquished by	Received by	Date	Time

RFW 21-21-001 A-7/91

____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# ____

381-596a

COC # 54804

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Client Baker Environmental

Est. Final Proj. Sampling Date

Work Order # CTO 0348

Project Contact/Phone # Teri Tragesser (412)269-6000

AD Project Manager

QC ____ Del ____ TAT ____

Date Rec'd ____ Date Due ____

Account #

Refrigerator #		
#/Type Container	Liquid	
	Solid	
Volume	Liquid	
	Solid	
Preservatives		

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb

INORG: Metal | CN

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	SVOA	Pest/PCB	TAL Metals	Cyanide
	10-SB04-02			S	9/26/95	1825	X	X	X	X	X
	10-SB04-04			S	9/26/95	1844	X	X	X	X	X
	10-SB05-00			S	9/26/95	1630	X	X	X	X	X
	10-SB05-02			S	9/26/95	1730	X	X	X	X	X
	10-SB05-04			S	9/26/95	1750	X	X	X	X	X

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

7 Day turn

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
J.E. Zimmerman		9/28/95	1600

Relinquished by	Received by	Date	Time

RFW 21-21-001.A-7/91

____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# ____

381-596a

C.C. # 34502

CTC - 8

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page ____ of ____

Client BAKER ENVIRONMENTAL INC.

Est. Final Proj. Sampling Date

Work Order # CTO-0348

Project Contact/Phone # JERI TRAVERSA/412-268-6007

AD Project Manager

QC ____ Del ____ TAT ____

Date Rec'd ____ Date Due ____

Account #

Refrigerator #

#/Type Container: Liquid / Solid

Volume: Liquid / Solid

Preservatives: HCl; HNO3; NaOH

ANALYSES REQUESTED →

ORGANIC: VOA / BNA / Pest/PCB / Herb / VOA

INORG: Metal / CN

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected																	
	IC-TW01			Liquid	9/26/95	1600	X	X	X	X	X												
	IC-TW02			Liquid	9/26/95	1500	X	X	X	X	X												

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

F-DAY TURN.

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
		9/26/95	1600

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# ____ 381-596a

C.O.C. # 34803 CIO - 348.

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client BAKER ENVIRONMENTAL INC.
Est. Final Proj. Sampling Date
Work Order # CTO-0348.
Project Contact/Phone # Tere Dressek/412-269-2000
AD Project Manager
QC Del TAT
Date Rec'd Date Due
Account #

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives: HNO3, HNO3, NaOH
ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	SVOA	Pest/PCBs	Tot. metals	Diss. metals	Cyanide
	10-TW01			Liquid	9/26/95	1600	X					
	10-TW02			|	|	1500	X					
	10-TW03			|	|	1400	X	X	X	X	X	X

WESTON Analytics Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

7-DAY TURN

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[signature]		9/26/95	1600				

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# ___ 381-596a

WESTON Analytics Use Only

348003

Custody Transfer Record/Lab Work Request

WESTON MANAGEMENT DESIGNERS/CONSULTANTS

Page 1 of 1

Client: LANDFILL
Est. Final Proj. Sampling Date: 9/27/95
Work Order #: CTO-0348
Project Contact/Phone #: MARK KIMES
AD Project Manager: JERI TRAGESSER
QC _____ Del _____ TAT _____
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #

		ORGANIC							INORG							
#/Type Container	Liquid / Solid	VOA	BNA	Pest/PCB	Herb	TPH-GAS	TPH-DIESEL	DIOXIN/FURAN	Metal	CN	OR. PEST	SULFIDE				
Volume	Liquid / Solid															
Preservatives																
ANALYSES REQUESTED →																

WESTON Analytics Use Only

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected												
		AOCBHP02			W	9/26/95	1420	X	X	X	X	X	X	X	X	X	X	X	

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

ANALYZE PER D.O.
APPENDIX IX
AIRBILL # 400-4057761556

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___ Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time
Mark Kimes		9/27/95	1200

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RFW 21-21-001/A-7/91

____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# _____ Cooler# _____

381-596a

WEST Analytics Use Only

348 4 4

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS CONSULTANTS

Client LANTDIV
Est. Final Proj. Sampling Date 9/27/95
Work Order # CTO #348
Project Contact/Phone # MARK KIMES (412) 269-2092
AD Project Manager JEFF TRAESSER
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

#/Type Container	Liquid																		
	Solid																		
Volume	Liquid																		
	Solid																		
Preservatives																			

ANALYSES REQUESTED →

ORGANIC							INORG								
VOA	BNA	Pest/PCB	Herb	TPH-GAS	TPH-DIESEL	DIOXINS FURANS	Metal	CN	OP PEST	SULFIDE					
X	X	X	X	X	X	X	X	X	X	X					

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
	AOCBHP03			W	9/1/95	0745

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

ANALYZE PER D.O.
APPENDIX IX
AIRBILL # 400-40576 1556

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
Mark Kimes		9/27/95	1200

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91

____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# ____

381-596a

WESTON Analytics Use Only

348402

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS CONSULTANTS

Page 1 of 1

Client: EASTON
Est. Final Proj. Sampling Date: 9/27/95
Work Order #: CTO-0348
Project Contact/Phone #: MARK KIMES (412) 269-2009
AD Project Manager: JERI TREGASAR
QC _____ Del _____ TAT _____
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #

#/Type Container	Liquid	
	Solid	
Volume	Liquid	
	Solid	
Preservatives		

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb | TPH GAS | TPH DIESEL | Oil & Grease

INORG: Metal | CN

OP PEST | SULFIDE

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	TPH GAS	TPH DIESEL	Oil & Grease	Metal	CN	OP PEST	SULFIDE
	AOCBHP01			W	9/26/95	0900	X	X	X	X	X	X	X	X	X	X	X

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

ANALYZE PER D.O.
APPENDIX IX
AIRBILL # 400-40576-1556

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received In Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
Paul Kimes		9/27/95	1200

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91

____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# _____ Cooler# _____

381-596a

348 PP

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page 2 of 2

Client LANTDIV
Est. Final Proj. Sampling Date 9/27/95
Work Order # CTO-Ø348
Project Contact/Phone # MARK KIMES (412) 269-2009
AD Project Manager TERI TREGASSAR
QC PER D.O. Del PER D.O. TAT PER D.O.
Date Rec'd ______ Date Due ______
Account # ______

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	APPENDIX IX	TPH GAS	TPH DIESEL	INORG Metal	CN
	6SSØ1			S	9/26/95	1045					X				
	6SBØ1			S	"	1000					X				
	6SSØ2			S	"	1055					X				
	6SBØ2			S	"	1100					X				
	AOCBSSØ1			S	9/26	1020					X	X	X		
	AOCBSBØ1-Ø1			S	9/25	1545					X	X	X		
	AOCBSSØ2			S	9/26	1030					X	X	X		
	AOCBSBØ2			S	9/25	1700					X	X	X		
	AOCBSSØ3			S	9/26	1040					X	X	X		
	AOCBSBØ3			S	9/25	1800					X	X	X		

WESTON Analytics Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

ANALYZE PER DO.

AIRBILL # 400-40576 1556

DATE/REVISIONS:
1. ______
2. ______
3. ______
4. ______
5. ______
6. ______

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ______
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[signature]		9/27/95	1200				

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ______ Cooler# ______ 381-596a

WESTON Analytics Use Only

348001

Custody Transfer Record/Lab Work Request

WESTON MANAGERS / DESIGNERS CONSULTANTS

Client LANTDIV
Est. Final Prof. Sampling Date 9/27/95
Work Order # CTO-0348
Project Contact/Phone # MARK KIMES (809) 852-6000
AD Project Manager JERI TREGASKIS
QC PER D.O. Del PERDA TAT PER D.O.
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #

#/Type Container	Liquid																		
	Solid	1/2oz	1/4oz	1/4oz				1/2oz	1/4oz										
Volume	Liquid																		
	Solid																		
Preservatives		—	—	—				—	—										

ANALYSES REQUESTED

ORGANIC							INORG												
VOA	BNA	~~Pest~~/PCB	Herb	TPH-GAS	TPH-DIESEL		Metal	CN											

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only
S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids L - EP/TCLP Leachate WI - Wipe X - Other F - Fish		12SS01			Soil	9/25/95	0850	X X X X X X
		12SS02			Soil	9/25/95	0855	X X X X X X
		14SS01			Soil	9/25/95	0850	X X X X X X
		14SS02			Soil	9/25/95	0857	X X X X X X
		14SS03			Soil	9/25/95	0905	X X X X X X
		~~65S01~~			~~S~~	~~9/26~~	~~1045~~	
		~~65D01~~			~~S~~	~~9/26~~	~~1000~~	
		~~65S02~~			~~S~~	~~9/26~~	~~1055~~	
		~~65D02~~			~~S~~	~~9/26~~	~~1100~~	

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

ANALYZE PER D.O.

AIRBILL 400-4076 1556

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
Mark Kimes		9/27/95	1200

Relinquished by	Received by	Date	Time

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# _____ Cooler# _____ 381-596a

APPENDIX A-2
SUMMARY OF ANALYTICAL RESULTS

APPENDIX A-2.1
SITES 10 AND 85 - SOIL

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB01-00	10-SB01-01	10-SB01-02	10-SB02-00	10-SB02-01	10-SB02-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
VOLATILES (ug/kg)						
Chloromethane	12 U	11 U	11 U	12 U	11 U	12 U
Bromomethane	12 U	11 U	11 U	12 U	11 U	12 U
Vinyl chloride	12 U	11 U	11 U	12 U	11 U	12 U
Chloroethane	12 U	11 U	11 U	12 U	11 U	12 U
Methylene Chloride	12 U	11 U	11 U	12 U	11 U	12 U
Acetone	10 JB	12 B	11 U	15 B	11 U	12 U
Carbon Disulfide	12 U	11 U	11 U	12 U	11 U	12 U
1,1-Dichloroethene	12 U	11 U	11 U	12 U	11 U	12 U
1,1-Dichloroethane	12 U	11 U	11 U	12 U	11 U	12 U
1,2-Dichloroethene (total)	12 U	11 U	11 U	12 U	11 U	12 U
Chloroform	12 U	11 U	11 U	12 U	11 U	12 U
1,2-Dichloroethane	12 U	11 U	11 U	12 U	11 U	12 U
2-Butanone	12 U	11 U	11 U	12 U	11 U	12 U
1,1,1-Trichloroethane	12 U	11 U	11 U	12 U	11 U	12 U
Carbon Tetrachloride	12 U	11 U	11 U	12 U	11 U	12 U
Bromodichloromethane	12 U	11 U	11 U	12 U	11 U	12 U
1,2-Dichloropropane	12 U	11 U	11 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	12 U	11 U	11 U	12 U	11 U	12 U
Trichloroethene	12 U	11 U	11 U	12 U	11 U	12 U
Dibromochloromethane	12 U	11 U	11 U	12 U	11 U	12 U
1,1,2-Trichloroethane	12 U	11 U	11 U	12 U	11 U	12 U
Benzene	12 U	11 U	11 U	12 U	11 U	12 U
trans-1,3-Dichloropropene	12 U	11 U	11 U	12 U	11 U	12 U
Bromoform	12 U	11 U	11 U	12 U	11 U	12 U
4-Methyl-2-pentanone	12 U	11 U	11 U	12 U	11 U	12 U
2-Hexanone	12 U	11 U	11 U	12 U	11 U	12 U
Tetrachloroethene	12 U	11 U	11 U	12 U	11 U	12 U
1,1,2,2-Tetrachloroethane	12 U	11 U	11 U	12 U	11 U	12 U
Toluene	12 U	11 U	11 U	12 U	11 U	12 U
Chlorobenzene	12 U	11 U	11 U	12 U	11 U	12 U
Ethylbenzene	12 U	11 U	11 U	12 U	11 U	12 U
Styrene	12 U	11 U	11 U	12 U	11 U	12 U
Xylene (total)	12 U	11 U	11 U	12 U	11 U	12 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB01-00	10-SB01-01	10-SB01-02	10-SB02-00	10-SB02-01	10-SB02-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
Phenol	410 U	360 U	350 U	390 U	360 U	46 J
bis(2-Chloroethyl)ether	410 U	360 U	350 U	390 U	360 U	410 U
2-Chlorophenol	410 U	360 U	350 U	390 U	360 U	410 U
1,3-Dichlorobenzene	410 U	360 U	350 U	390 U	360 U	410 U
1,4-Dichlorobenzene	410 U	360 U	350 U	390 U	360 U	410 U
1,2-Dichlorobenzene	410 U	360 U	350 U	390 U	360 U	410 U
2-Methylphenol	410 U	360 U	350 U	390 U	360 U	410 U
2,2'-oxybis(1-Chloropropane	410 U	360 U	350 U	390 U	360 U	410 U
4-Methylphenol	410 U	360 U	350 U	390 U	360 U	410 U
N-Nitroso-di-n-propylamine	410 U	360 U	350 U	390 U	360 U	410 U
Hexachloroethane	410 U	360 U	350 U	390 U	360 U	410 U
Nitrobenzene	410 U	360 U	350 U	390 U	360 U	410 U
Isophorone	410 U	360 U	350 U	390 U	360 U	410 U
2-Nitrophenol	410 U	360 U	350 U	390 U	360 U	410 U
2,4-Dimethylphenol	410 U	360 U	350 U	390 U	360 U	410 U
bis(2-Chloroethoxy)methane	410 U	360 U	350 U	390 U	360 U	410 U
2,4-Dichlorophenol	410 U	360 U	350 U	390 U	360 U	410 U
1,2,4-Trichlorobenzene	410 U	360 U	350 U	390 U	360 U	410 U
Naphthalene	410 U	360 U	350 U	390 U	360 U	410 U
4-Chloroaniline	410 U	360 U	350 U	390 U	360 U	410 U
Hexachlorobutadiene	410 U	360 U	350 U	390 U	360 U	410 U
4-Chloro-3-methylphenol	410 U	360 U	350 U	390 U	360 U	410 U
2-Methylnaphthalene	410 U	360 U	350 U	390 U	360 U	410 U
Hexachlorocyclopentadiene	410 U	360 U	350 U	390 U	360 U	410 U
2,4,6-Trichlorophenol	410 U	360 U	350 U	390 U	360 U	410 U
2,4,5-Trichlorophenol	1000 U	900 U	880 U	970 U	910 U	1000 U
2-Chloronaphthalene	410 U	360 U	350 U	390 U	360 U	410 U
2-Nitroaniline	1000 U	900 U	880 U	970 U	910 U	1000 U
Dimethylphthalate	410 U	360 U	350 U	390 U	360 U	410 U
Acenaphthylene	410 U	360 U	350 U	390 U	360 U	410 U
2,6-Dinitrotoluene	410 U	360 U	350 U	390 U	360 U	410 U
3-Nitroaniline	1000 U	900 U	880 U	970 U	910 U	1000 U
Acenaphthene	410 U	360 U	350 U	390 U	360 U	410 U
2,4-Dinitrophenol	1000 U	900 U	880 U	970 U	910 U	1000 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB01-00	10-SB01-01	10-SB01-02	10-SB02-00	10-SB02-01	10-SB02-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	1000 U	900 U	880 U	970 U	910 U	1000 U
Dibenzofuran	410 U	360 U	350 U	390 U	360 U	410 U
2,4-Dinitrotoluene	410 U	360 U	350 U	390 U	360 U	410 U
Diethylphthalate	410 U	360 U	350 U	390 U	360 U	410 U
4-Chlorophenyl-phenylether	410 U	360 U	350 U	390 U	360 U	410 U
Fluorene	410 U	360 U	350 U	390 U	360 U	410 U
4-Nitroaniline	1000 U	900 U	880 U	970 U	910 U	1000 U
4,6-Dinitro-2-methylphenol	1000 U	900 U	880 U	970 U	910 U	1000 U
N-Nitrosodiphenylamine (1)	410 U	360 U	350 U	390 U	360 U	410 U
4-Bromophenyl-phenylether	410 U	360 U	350 U	390 U	360 U	410 U
Hexachlorobenzene	410 U	360 U	350 U	390 U	360 U	410 U
Pentachlorophenol	1000 U	900 U	880 U	970 U	910 U	1000 U
Phenanthrene	410 U	360 U	350 U	390 U	360 U	410 U
Anthracene	410 U	360 U	350 U	390 U	360 U	410 U
Carbazole	410 U	360 U	350 U	390 U	360 U	410 U
Di-n-butylphthalate	220 JB	340 JB	140 JB	170 JB	170 JB	180 JB
Fluoranthene	260 J	360 U	350 U	390 U	360 U	410 U
Pyrene	290 J	43 J	350 U	43 J	360 U	410 U
Butylbenzylphthalate	410 U	360 U	350 U	390 U	360 U	410 U
3,3'-Dichlorobenzidine	410 U	360 U	350 U	390 U	360 U	410 U
Benzo(a)anthracene	170 J	360 U	350 U	390 U	360 U	410 U
Chrysene	180 J	360 U	350 U	390 U	360 U	410 U
bis(2-Ethylhexyl)phthalate	410 U	360 U	350 U	390 U	360 U	410 U
Di-n-octyl phthalate	410 U	360 U	350 U	390 U	360 U	410 U
Benzo(b)fluoranthene	260 J	360 U	350 U	390 U	360 U	410 U
Benzo(k)fluoranthene	110 J	360 U	350 U	390 U	360 U	410 U
Benzo(a)pyrene	190 J	360 U	350 U	390 U	360 U	410 U
Indeno(1,2,3-cd)pyrene	120 J	360 U	350 U	390 U	360 U	410 U
Dibenzo(a,h)anthracene	410 U	360 U	350 U	390 U	360 U	410 U
Benzo(g,h,i)perylene	110 J	360 U	350 U	390 U	360 U	410 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB01-00	10-SB01-01	10-SB01-02	10-SB02-00	10-SB02-01	10-SB02-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
beta-BHC	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
delta-BHC	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
gamma-BHC (Lindane)	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Heptachlor	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Aldrin	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Heptachlor epoxide	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Endosulfan I	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Dieldrin	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
4,4'-DDE	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
Endrin	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
Endosulfan II	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
4,4'-DDD	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
Endosulfan sulfate	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
4,4'-DDT	4.1 U	3.7 U	3.6 U	3.4 J	3.6 U	4.1 U
Methoxychlor	20 U	18 U	18 U	19 U	18 U	20 U
Endrin Keytone	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
Endrin aldehyde	4.1 U	3.7 U	3.6 U	3.8 U	3.6 U	4.1 U
alpha-Chlordane	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
gamma-Chlordane	2 U	1.8 U	1.8 U	1.9 U	1.8 U	2 U
Toxaphene	200 U	180 U	180 U	190 U	180 U	200 U
Aroclor-1016	41 U	37 U	36 U	38 U	36 U	41 U
Aroclor-1221	82 U	74 U	72 U	76 U	72 U	81 U
Aroclor-1232	41 U	37 U	36 U	38 U	36 U	41 U
Aroclor-1242	41 U	37 U	36 U	38 U	36 U	41 U
Aroclor-1248	41 U	37 U	36 U	38 U	36 U	41 U
Aroclor-1254	41 U	37 U	36 U	38 U	36 U	41 U
Aroclor-1260	41 U	37 U	36 U	38 U	36 U	41 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB01-00	10-SB01-01	10-SB01-02	10-SB02-00	10-SB02-01	10-SB02-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.48 U	0.54 U	0.85	0.51 U	0.46 U	0.49 U
Aluminum, Total	919	4680	717	2250	2290	782
Arsenic, Total	0.36 U	1.2	0.3 U	0.59	0.67	0.35 U
Barium, Total	4.1	15.4	3.2	18.1	11.2	1.8
Beryllium, Total	0.27 U	0.31 U	0.31 U	0.39	0.27 U	0.28 U
Calcium, Total	148	1550	103	803	1250	79.4
Cadmium, Total	0.51 U	0.59 U	0.58 U	0.54 U	0.5 U	0.52 U
Cobalt, Total	0.4 U	0.46 U	0.46 U	0.88	0.39 U	0.41 U
Chromium, Total	1.8	4.6	0.83	2.6	3.3	0.81
Copper, Total	1.3	1.8	0.75	3.2	6.2	0.38
Iron, Total	794	2110	165	1990	2400	404
Mercury, Total	0.11 U	0.09 U	0.09 U	0.12 U	0.088 U	0.083 U
Potassium, Total	144	167	217	129	136	117
Magnesium, Total	106	210	33.5	183	192	26.3
Manganese, Total	13.3	9.1	1.9	34.6	23.5	2.5
Sodium, Total	12.5	19.7	17	29.4	18.9	9
Nickel, Total	2.1 U	2.4 U	2.4 U	2.3 U	2.1 U	2.2 U
Lead, Total	28	10.7	1.1	48.5	99.8	2
Antimony, Total	3.3 U	3.8 U	3.7 U	3.5 U	3.2 U	3.4 U
Selenium, Total	0.32 U	0.3 U	0.27 U	0.31 U	0.29 U	0.31 U
Thallium, Total	0.16 U	0.15 U	0.13 U	0.15 U	0.15 U	0.16 U
Vanadium, Total	2.4	6.1	1.4	5	3.4	1.3
Zinc, Total	8.6	13.3	0.65 U	29.2	148	11.1
Cyanide	0.48 U	0.5 U	0.48 U	0.53 U	0.52 U	0.6 U
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	NA	NA	NA	NA	NA	NA
Arsenic, TCLP Leachate	NA	NA	NA	NA	NA	NA
Barium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Cadmium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Chromium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Lead, TCLP Leachate	NA	NA	NA	NA	NA	NA
Mercury, TCLP Leachate	NA	NA	NA	NA	NA	NA
Selenium, TCLP Leachate	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB03-00	10-SB03-01	10-SB03-02	10-SB04-00	10-SB04-02	10-SB04-04
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
VOLATILES (ug/kg)						
Chloromethane	12 U	11 U	12 U	13 U	11 U	13 U
Bromomethane	12 U	11 U	12 U	13 U	11 U	13 U
Vinyl chloride	12 U	11 U	12 U	13 U	11 U	13 U
Chloroethane	12 U	11 U	12 U	13 U	11 U	13 U
Methylene Chloride	12 U	11 U	12 U	13 U	11 U	13 U
Acetone	15 B	11 U	12 U	16 B	11 U	57 B
Carbon Disulfide	12 U	11 U	12 U	13 U	11 U	13 U
1,1-Dichloroethene	12 U	11 U	12 U	13 U	11 U	13 U
1,1-Dichloroethane	12 U	11 U	12 U	13 U	11 U	13 U
1,2-Dichloroethene (total)	12 U	11 U	12 U	13 U	11 U	13 U
Chloroform	12 U	11 U	12 U	13 U	11 U	13 U
1,2-Dichloroethane	12 U	11 U	12 U	13 U	11 U	13 U
2-Butanone	12 U	11 U	12 U	13 U	11 U	13 U
1,1,1-Trichloroethane	12 U	11 U	12 U	13 U	11 U	13 U
Carbon Tetrachloride	12 U	11 U	12 U	13 U	11 U	13 U
Bromodichloromethane	12 U	11 U	12 U	13 U	11 U	13 U
1,2-Dichloropropane	12 U	11 U	12 U	13 U	11 U	13 U
cis-1,3-Dichloropropene	12 U	11 U	12 U	13 U	11 U	13 U
Trichloroethene	12 U	11 U	12 U	13 U	11 U	13 U
Dibromochloromethane	12 U	11 U	12 U	13 U	11 U	13 U
1,1,2-Trichloroethane	12 U	11 U	12 U	13 U	11 U	13 U
Benzene	12 U	11 U	12 U	13 U	11 U	13 U
trans-1,3-Dichloropropene	12 U	11 U	12 U	13 U	11 U	13 U
Bromoform	12 U	11 U	12 U	13 U	11 U	13 U
4-Methyl-2-pentanone	12 U	11 U	12 U	13 U	11 U	13 U
2-Hexanone	12 U	11 U	12 U	13 U	11 U	13 U
Tetrachloroethene	12 U	11 U	12 U	13 U	11 U	13 U
1,1,2,2-Tetrachloroethane	12 U	11 U	12 U	13 U	11 U	13 U
Toluene	12 U	11 U	12 U	13 U	11 U	13 U
Chlorobenzene	12 U	11 U	12 U	13 U	11 U	13 U
Ethylbenzene	12 U	11 U	12 U	13 U	11 U	13 U
Styrene	12 U	11 U	12 U	13 U	11 U	13 U
Xylene (total)	12 U	11 U	12 U	13 U	11 U	13 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB03-00	10-SB03-01	10-SB03-02	10-SB04-00	10-SB04-02	10-SB04-04
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
Phenol	390 U	360 U	400 U	440 U	370 U	430 U
bis(2-Chloroethyl)ether	390 U	360 U	400 U	440 U	370 U	430 U
2-Chlorophenol	390 U	360 U	400 U	440 U	370 U	430 U
1,3-Dichlorobenzene	390 U	360 U	400 U	440 U	370 U	430 U
1,4-Dichlorobenzene	390 U	360 U	400 U	440 U	370 U	430 U
1,2-Dichlorobenzene	390 U	360 U	400 U	440 U	370 U	430 U
2-Methylphenol	390 U	360 U	400 U	440 U	370 U	430 U
2,2'-oxybis(1-Chloropropane	390 U	360 U	400 U	440 U	370 U	430 U
4-Methylphenol	390 U	360 U	400 U	440 U	370 U	430 U
N-Nitroso-di-n-propylamine	390 U	360 U	400 U	440 U	370 U	430 U
Hexachloroethane	390 U	360 U	400 U	440 U	370 U	430 U
Nitrobenzene	390 U	360 U	400 U	440 U	370 U	430 U
Isophorone	390 U	360 U	400 U	440 U	370 U	430 U
2-Nitrophenol	390 U	360 U	400 U	440 U	370 U	430 U
2,4-Dimethylphenol	390 U	360 U	400 U	440 U	370 U	430 U
bis(2-Chloroethoxy)methane	390 U	360 U	400 U	440 U	370 U	430 U
2,4-Dichlorophenol	390 U	360 U	400 U	440 U	370 U	430 U
1,2,4-Trichlorobenzene	390 U	360 U	400 U	440 U	370 U	430 U
Naphthalene	380 J	360 U	400 U	440 U	370 U	430 U
4-Chloroaniline	390 U	360 U	400 U	440 U	370 U	430 U
Hexachlorobutadiene	390 U	360 U	400 U	440 U	370 U	430 U
4-Chloro-3-methylphenol	390 U	360 U	400 U	440 U	370 U	430 U
2-Methylnaphthalene	140 J	360 U	400 U	440 U	370 U	430 U
Hexachlorocyclopentadiene	390 U	360 U	400 U	440 U	370 U	430 U
2,4,6-Trichlorophenol	390 U	360 U	400 U	440 U	370 U	430 U
2,4,5-Trichlorophenol	980 U	900 U	1000 U	1100 U	940 U	1100 U
2-Chloronaphthalene	390 U	360 U	410 U	440 U	370 U	430 U
2-Nitroaniline	980 U	900 U	1000 U	1100 U	940 U	1100 U
Dimethylphthalate	390 U	360 U	400 U	440 U	370 U	430 U
Acenaphthylene	50 J	360 U	400 U	440 U	370 U	430 U
2,6-Dinitrotoluene	390 U	360 U	400 U	440 U	370 U	430 U
3-Nitroaniline	980 U	900 U	1000 U	1100 U	940 U	1100 U
Acenaphthene	930	58 J	400 U	440 U	370 U	430 U
2,4-Dinitrophenol	980 U	900 U	1000 U	1100 U	940 U	1100 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB03-00	10-SB03-01	10-SB03-02	10-SB04-00	10-SB04-02	10-SB04-04
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	980 U	900 U	1000 U	1100 U	940 U	1100 U
Dibenzofuran	470	360 U	400 U	440 U	370 U	430 U
2,4-Dinitrotoluene	390 U	360 U	400 U	440 U	370 U	430 U
Diethylphthalate	390 U	360 U	400 U	440 U	370 U	430 U
4-Chlorophenyl-phenylether	390 U	360 U	400 U	440 U	370 U	430 U
Fluorene	810	59 J	400 U	440 U	370 U	430 U
4-Nitroaniline	980 U	900 U	1000 U	1100 U	940 U	1100 U
4,6-Dinitro-2-methylphenol	980 U	900 U	1000 U	1100 U	940 U	1100 U
N-Nitrosodiphenylamine (1)	390 U	360 U	400 U	440 U	370 U	430 U
4-Bromophenyl-phenylether	390 U	360 U	400 U	440 U	370 U	430 U
Hexachlorobenzene	390 U	360 U	400 U	440 U	370 U	430 U
Pentachlorophenol	980 U	900 U	1000 U	1100 U	940 U	1100 U
Phenanthrene	4500 E	550	400 U	440 U	370 U	430 U
Anthracene	1400	110 J	400 U	440 U	370 U	430 U
Carbazole	830	61 J	400 U	440 U	370 U	430 U
Di-n-butylphthalate	190 JB	170 JB	190 JB	210 JB	170 JB	200 JB
Fluoranthene	5700 E	780	400 U	440 U	370 U	430 U
Pyrene	5900 E	710	400 U	440 U	370 U	430 U
Butylbenzylphthalate	390 U	360 U	400 U	440 U	370 U	430 U
3,3'-Dichlorobenzidine	390 U	360 U	400 U	440 U	370 U	430 U
Benzo(a)anthracene	4500 E	390	400 U	440 U	370 U	430 U
Chrysene	3600 E	380	400 U	440 U	370 U	430 U
bis(2-Ethylhexyl)phthalate	390 U	360 U	400 U	440 U	370 U	430 U
Di-n-octyl phthalate	390 U	360 U	400 U	440 U	370 U	430 U
Benzo(b)fluoranthene	4600 E	470	400 U	440 U	370 U	430 U
Benzo(k)fluoranthene	1300	180 J	400 U	440 U	370 U	430 U
Benzo(a)pyrene	3500 E	350 J	400 U	440 U	370 U	430 U
Indeno(1,2,3-cd)pyrene	2800	220 J	400 U	440 U	370 U	430 U
Dibenzo(a,h)anthracene	630	55 J	400 U	440 U	370 U	430 U
Benzo(g,h,i)perylene	2400	190 J	400 U	440 U	370 U	430 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB03-00	10-SB03-01	10-SB03-02	10-SB04-00	10-SB04-02	10-SB04-04
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
beta-BHC	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
delta-BHC	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
gamma-BHC (Lindane)	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Heptachlor	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Aldrin	33	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Heptachlor epoxide	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Endosulfan I	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Dieldrin	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
4,4'-DDE	3.9 U	3.5 U	4.1 U	9.1	3.7 U	4.3 U
Endrin	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
Endosulfan II	3.9	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
4,4'-DDD	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
Endosulfan sulfate	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
4,4'-DDT	3.9 U	3.5 U	4.1 U	9.5	8.2	4.3 U
Methoxychlor	20 U	18 U	21 U	22 U	19 U	21 U
Endrin Keytone	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
Endrin aldehyde	3.9 U	3.5 U	4.1 U	4.3 U	3.7 U	4.3 U
alpha-Chlordane	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
gamma-Chlordane	2 U	1.8 U	2.1 U	2.2 U	1.9 U	2.1 U
Toxaphene	200 U	180 U	210 U	220 U	190 U	210 U
Aroclor-1016	39 U	35 U	41 U	43 U	37 U	43 U
Aroclor-1221	79 U	70 U	82 U	86 U	75 U	85 U
Aroclor-1232	39 U	35 U	41 U	43 U	37 U	43 U
Aroclor-1242	39 U	35 U	41 U	43 U	37 U	43 U
Aroclor-1248	39 U	35 U	41 U	43 U	37 U	43 U
Aroclor-1254	39 U	35 U	41 U	43 U	37 U	43 U
Aroclor-1260	39 U	35 U	41 U	43 U	37 U	43 U

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB03-00	10-SB03-01	10-SB03-02	10-SB04-00	10-SB04-02	10-SB04-04
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.6 U	0.55 U	0.61 U	0.65 U	0.49 U	0.62 U
Aluminum, Total	814	964	641	421	3830	1040
Arsenic, Total	0.32 U	0.28 U	0.29 U	0.43 U	0.36	0.34 U
Barium, Total	3.7	6.4	2	16.2	18.1	2.5
Beryllium, Total	0.35 U	0.32 U	0.35 U	0.37 U	0.29 U	0.36 U
Calcium, Total	225	247	66.8	889	76.7	29.3
Cadmium, Total	0.65 U	0.59 U	0.65 U	0.7 U	0.53 U	0.67 U
Cobalt, Total	0.54	0.46 U	0.51 U	0.55 U	0.42 U	0.53 U
Chromium, Total	2.1	1.9	0.73	0.95	3.1	1.6
Copper, Total	1.4	2.1	0.59	2.4	1.5	0.6
Iron, Total	604	950	161	384	1730	278
Mercury, Total	0.1 U	0.11 U	0.086 U	0.11 U	0.1 U	0.097 U
Potassium, Total	146	132	159	213	102 U	128 U
Magnesium, Total	60.7	65.7	26.6	146	40.7	38.4
Manganese, Total	3.2	6.3	1.3	3.9	4.1	2
Sodium, Total	14.1	9.8	8.3	18.6	13.4	10.1
Nickel, Total	2.7 U	2.4 U	2.7 U	2.9 U	2.2 U	2.8 U
Lead, Total	25.7	19.2	4	12.1	3.7	0.86
Antimony, Total	4.2 U	3.8 U	4.2 U	4.5 U	3.4 U	4.3 U
Selenium, Total	0.29 U	0.25 U	0.26 U	0.53	0.31 U	0.3 U
Thallium, Total	0.14 U	0.13 U	0.13 U	0.19 U	0.16 U	0.15 U
Vanadium, Total	2.9	2.2	1.6	3	4.3	2
Zinc, Total	10.1	56.7	7.7	7.6	0.67	0.74 U
Cyanide	0.57 U	0.48 U	0.59 U	0.62 U	0.49 U	0.63 U
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	NA	NA	NA	NA	NA	NA
Arsenic, TCLP Leachate	NA	NA	NA	NA	NA	NA
Barium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Cadmium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Chromium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Lead, TCLP Leachate	NA	NA	NA	NA	NA	NA
Mercury, TCLP Leachate	NA	NA	NA	NA	NA	NA
Selenium, TCLP Leachate	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB05-00	10-SB05-02	10-SB05-04	85-SB01	85-SB01-00	85-SB01-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	4.7	NA	NA
VOLATILES (ug/kg)						
Chloromethane	14 U	11 U	11 U	NA	NA	NA
Bromomethane	14 U	11 U	11 U	NA	NA	NA
Vinyl chloride	14 U	11 U	11 U	NA	NA	NA
Chloroethane	14 U	11 U	11 U	NA	NA	NA
Methylene Chloride	14 U	11 U	11 U	NA	NA	NA
Acetone	26	11 U	11 U	NA	NA	NA
Carbon Disulfide	14 U	11 U	11 U	NA	NA	NA
1,1-Dichloroethene	14 U	11 U	11 U	NA	NA	NA
1,1-Dichloroethane	14 U	11 U	11 U	NA	NA	NA
1,2-Dichloroethene (total)	14 U	11 U	11 U	NA	NA	NA
Chloroform	14 U	11 U	11 U	NA	NA	NA
1,2-Dichloroethane	14 U	11 U	11 U	NA	NA	NA
2-Butanone	14 U	11 U	11 U	NA	NA	NA
1,1,1-Trichloroethane	14 U	11 U	11 U	NA	NA	NA
Carbon Tetrachloride	14 U	11 U	11 U	NA	NA	NA
Bromodichloromethane	14 U	11 U	11 U	NA	NA	NA
1,2-Dichloropropane	14 U	11 U	11 U	NA	NA	NA
cis-1,3-Dichloropropene	14 U	11 U	11 U	NA	NA	NA
Trichloroethene	14 U	11 U	11 U	NA	NA	NA
Dibromochloromethane	14 U	11 U	11 U	NA	NA	NA
1,1,2-Trichloroethane	14 U	11 U	11 U	NA	NA	NA
Benzene	14 U	11 U	11 U	NA	NA	NA
trans-1,3-Dichloropropene	14 U	11 U	11 U	NA	NA	NA
Bromoform	14 U	11 U	11 U	NA	NA	NA
4-Methyl-2-pentanone	14 U	11 U	11 U	NA	NA	NA
2-Hexanone	14 U	11 U	11 U	NA	NA	NA
Tetrachloroethene	14 U	11 U	11 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	14 U	11 U	11 U	NA	NA	NA
Toluene	14 U	11 U	11 U	NA	NA	NA
Chlorobenzene	14 U	11 U	11 U	NA	NA	NA
Ethylbenzene	14 U	11 U	11 U	NA	NA	NA
Styrene	14 U	11 U	11 U	NA	NA	NA
Xylene (total)	14 U	11 U	11 U	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB05-00	10-SB05-02	10-SB05-04	85-SB01	85-SB01-00	85-SB01-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	4.7	NA	NA
SEMIVOLATILES (ug/kg)						
Phenol	450 U	380 U	350 U	NA	NA	NA
bis(2-Chloroethyl)ether	450 U	380 U	350 U	NA	NA	NA
2-Chlorophenol	450 U	380 U	350 U	NA	NA	NA
1,3-Dichlorobenzene	450 U	380 U	350 U	NA	NA	NA
1,4-Dichlorobenzene	450 U	380 U	350 U	NA	NA	NA
1,2-Dichlorobenzene	450 U	380 U	350 U	NA	NA	NA
2-Methylphenol	450 U	380 U	350 U	NA	NA	NA
2,2'-oxybis(1-Chloropropane	450 U	380 U	350 U	NA	NA	NA
4-Methylphenol	450 U	380 U	350 U	NA	NA	NA
N-Nitroso-di-n-propylamine	450 U	380 U	350 U	NA	NA	NA
Hexachloroethane	450 U	380 U	350 U	NA	NA	NA
Nitrobenzene	450 U	380 U	350 U	NA	NA	NA
Isophorone	450 U	380 U	350 U	NA	NA	NA
2-Nitrophenol	450 U	380 U	350 U	NA	NA	NA
2,4-Dimethylphenol	450 U	380 U	350 U	NA	NA	NA
bis(2-Chloroethoxy)methane	450 U	380 U	350 U	NA	NA	NA
2,4-Dichlorophenol	450 U	380 U	350 U	NA	NA	NA
1,2,4-Trichlorobenzene	450 U	380 U	350 U	NA	NA	NA
Naphthalene	450 U	380 U	350 U	NA	NA	NA
4-Chloroaniline	450 U	380 U	350 U	NA	NA	NA
Hexachlorobutadiene	450 U	380 U	350 U	NA	NA	NA
4-Chloro-3-methylphenol	450 U	380 U	350 U	NA	NA	NA
2-Methylnaphthalene	450 U	380 U	350 U	NA	NA	NA
Hexachlorocyclopentadiene	450 U	380 U	350 U	NA	NA	NA
2,4,6-Trichlorophenol	450 U	380 U	350 U	NA	NA	NA
2,4,5-Trichlorophenol	1100 U	940 U	880 U	NA	NA	NA
2-Chloronaphthalene	450 U	380 U	350 U	NA	NA	NA
2-Nitroaniline	1100 U	940 U	880 U	NA	NA	NA
Dimethylphthalate	450 U	380 U	350 U	NA	NA	NA
Acenaphthylene	450 U	380 U	350 U	NA	NA	NA
2,6-Dinitrotoluene	450 U	380 U	350 U	NA	NA	NA
3-Nitroaniline	1100 U	940 U	880 U	NA	NA	NA
Acenaphthene	450 U	380 U	350 U	NA	NA	NA
2,4-Dinitrophenol	1100 U	940 U	880 U	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB05-00	10-SB05-02	10-SB05-04	85-SB01	85-SB01-00	85-SB01-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	4.7	NA	NA
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	1100 U	940 U	880 U	NA	NA	NA
Dibenzofuran	450 U	380 U	350 U	NA	NA	NA
2,4-Dinitrotoluene	450 U	380 U	350 U	NA	NA	NA
Diethylphthalate	450 U	380 U	350 U	NA	NA	NA
4-Chlorophenyl-phenylether	450 U	380 U	350 U	NA	NA	NA
Fluorene	450 U	380 U	350 U	NA	NA	NA
4-Nitroaniline	1100 U	940 U	880 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	1100 U	940 U	880 U	NA	NA	NA
N-Nitrosodiphenylamine (1)	450 U	380 U	350 U	NA	NA	NA
4-Bromophenyl-phenylether	450 U	380 U	350 U	NA	NA	NA
Hexachlorobenzene	450 U	380 U	350 U	NA	NA	NA
Pentachlorophenol	1100 U	940 U	880 U	NA	NA	NA
Phenanthrene	450 U	380 U	350 U	NA	NA	NA
Anthracene	450 U	380 U	350 U	NA	NA	NA
Carbazole	450 U	380 U	350 U	NA	NA	NA
Di-n-butylphthalate	230 JB	200 JB	170 JB	NA	NA	NA
Fluoranthene	450 U	380 U	350 U	NA	NA	NA
Pyrene	450 U	380 U	350 U	NA	NA	NA
Butylbenzylphthalate	450 U	380 U	350 U	NA	NA	NA
3,3'-Dichlorobenzidine	450 U	380 U	350 U	NA	NA	NA
Benzo(a)anthracene	450 U	380 U	350 U	NA	NA	NA
Chrysene	450 U	380 U	350 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	450 U	380 U	350 U	NA	NA	NA
Di-n-octyl phthalate	450 U	380 U	350 U	NA	NA	NA
Benzo(b)fluoranthene	450 U	380 U	350 U	NA	NA	NA
Benzo(k)fluoranthene	450 U	380 U	350 U	NA	NA	NA
Benzo(a)pyrene	450 U	380 U	350 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	450 U	380 U	350 U	NA	NA	NA
Dibenzo(a,h)anthracene	450 U	380 U	350 U	NA	NA	NA
Benzo(g,h,i)perylene	450 U	380 U	350 U	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB05-00	10-SB05-02	10-SB05-04	85-SB01	85-SB01-00	85-SB01-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	4.7	NA	NA
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	2.2 U	1.9 U	1.8 U	NA	NA	NA
beta-BHC	2.2 U	1.9 U	1.8 U	NA	NA	NA
delta-BHC	2.2 U	1.9 U	1.8 U	NA	NA	NA
gamma-BHC (Lindane)	2.2 U	1.9 U	1.8 U	NA	NA	NA
Heptachlor	2.2 U	1.9 U	1.8 U	NA	NA	NA
Aldrin	2.2 U	1.9 U	1.8 U	NA	NA	NA
Heptachlor epoxide	2.2 U	1.9 U	1.8 U	NA	NA	NA
Endosulfan I	2.2 U	1.9 U	1.8 U	NA	NA	NA
Dieldrin	4.5 U	3.8 U	3.5 U	NA	NA	NA
4,4'-DDE	4.5 U	3.8 U	3.5 U	NA	NA	NA
Endrin	4.5 U	3.8 U	3.5 U	NA	NA	NA
Endosulfan II	4.5 U	3.8 U	3.5 U	NA	NA	NA
4,4'-DDD	4.5 U	3.8 U	3.5 U	NA	NA	NA
Endosulfan sulfate	4.5 U	3.8 U	3.5 U	NA	NA	NA
4,4'-DDT	4.5 U	3.8 U	3.5 U	NA	NA	NA
Methoxychlor	22 U	19 U	18 U	NA	NA	NA
Endrin Keytone	4.5 U	3.8 U	3.5 U	NA	NA	NA
Endrin aldehyde	4.5 U	3.8 U	3.5 U	NA	NA	NA
alpha-Chlordane	2.2 U	1.9 U	1.8 U	NA	NA	NA
gamma-Chlordane	2.2 U	1.9 U	1.8 U	NA	NA	NA
Toxaphene	220 U	190 U	180 U	NA	NA	NA
Aroclor-1016	45 U	38 U	35 U	NA	NA	NA
Aroclor-1221	89 U	76 U	70 U	NA	NA	NA
Aroclor-1232	45 U	38 U	35 U	NA	NA	NA
Aroclor-1242	45 U	38 U	35 U	NA	NA	NA
Aroclor-1248	45 U	38 U	35 U	NA	NA	NA
Aroclor-1254	45 U	38 U	35 U	NA	NA	NA
Aroclor-1260	45 U	38 U	35 U	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-SB05-00	10-SB05-02	10-SB05-04	85-SB01	85-SB01-00	85-SB01-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	4.7	NA	NA
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.59 U	0.56 U	0.48 U	NA	0.53 U	0.54 U
Aluminum, Total	1410	6100	616	NA	3080	4800
Arsenic, Total	0.42 U	0.97	0.29 U	NA	1.5	0.96
Barium, Total	3.5	8.5	1.7	NA	19.2	3.8
Beryllium, Total	0.34 U	0.32 U	0.27 U	NA	0.31 U	0.31 U
Calcium, Total	39.7	43.4	18.5	NA	580	29.9
Cadmium, Total	0.64 U	0.6 U	0.51 U	NA	2.1	0.58 U
Cobalt, Total	0.5 U	0.47 U	0.4 U	NA	0.45 U	0.46 U
Chromium, Total	0.97	6.3	1.6	NA	2.3	5.5
Copper, Total	1	1.5	0.41	NA	89.2	1.7
Iron, Total	1040	3590	235	NA	4590	2750
Mercury, Total	0.1 U	0.091 U	0.071 U	NA	2.1	0.092 U
Potassium, Total	121 U	209	128	NA	214	214
Magnesium, Total	36.3	147	35.9	NA	118	110
Manganese, Total	2.8	3.8	1.6	NA	739	2.1
Sodium, Total	14.6	17.8	10.6	NA	12.9	12.1
Nickel, Total	2.6 U	2.5 U	2.1 U	NA	2.4 U	2.6
Lead, Total	2.1	3.6	4.4	NA	143	3.9
Antimony, Total	4.1 U	3.9 U	3.3 U	NA	3.7 U	3.7 U
Selenium, Total	0.37 U	0.29	0.26 U	NA	0.39 U	0.26 U
Thallium, Total	0.18 U	0.14 U	0.13 U	NA	0.39 U	0.26 U
Vanadium, Total	3.5	10.4	1.7	NA	4.8	8
Zinc, Total	0.75	2.5	0.57 U	NA	1330	8.3
Cyanide	0.66 U	0.56 U	0.46 U	NA	0.9	0.53 U
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	NA	NA	NA	50 U	NA	NA
Arsenic, TCLP Leachate	NA	NA	NA	100 U	NA	NA
Barium, TCLP Leachate	NA	NA	NA	500 U	NA	NA
Cadmium, TCLP Leachate	NA	NA	NA	50 U	NA	NA
Chromium, TCLP Leachate	NA	NA	NA	50 U	NA	NA
Lead, TCLP Leachate	NA	NA	NA	50 U	NA	NA
Mercury, TCLP Leachate	NA	NA	NA	10 U	NA	NA
Selenium, TCLP Leachate	NA	NA	NA	100 U	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB01-04	85-SB02-00	85-SB02-02	85-SB02-04	85-SB03-00	85-SB03-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
VOLATILES (ug/kg)						
Chloromethane	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Xylene (total)	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB01-04	85-SB02-00	85-SB02-02	85-SB02-04	85-SB03-00	85-SB03-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
Phenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB01-04	85-SB02-00	85-SB02-02	85-SB02-04	85-SB03-00	85-SB03-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB01-04	85-SB02-00	85-SB02-02	85-SB02-04	85-SB03-00	85-SB03-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA
Endrin Keytone	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA
Aroclor-1016	NA	NA	NA	NA	NA	NA
Aroclor-1221	NA	NA	NA	NA	NA	NA
Aroclor-1232	NA	NA	NA	NA	NA	NA
Aroclor-1242	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB01-04	85-SB02-00	85-SB02-02	85-SB02-04	85-SB03-00	85-SB03-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.42 U	73 U	0.53 U	0.42 U	0.45 U	0.48 U
Aluminum, Total	702	1140	10200	348	2910	3840
Arsenic, Total	0.37	76.8	3	0.37 U	0.63	1.1
Barium, Total	0.81	134	13.3	0.87	9.5	5.2
Beryllium, Total	0.24 U	0.42 U	0.31 U	0.24 U	0.26 U	0.28 U
Calcium, Total	127	823	82.1	10.5	91	93.2
Cadmium, Total	0.45 U	47.1	0.66	0.45 U	0.49 U	0.52 U
Cobalt, Total	0.36 U	17.3	0.45 U	0.36 U	0.38 U	0.41 U
Chromium, Total	1.2	147	11.3	0.96	2.8	4.4
Copper, Total	0.5	1870	8.8	0.39	2	0.65
Iron, Total	398	339000	9480	385	1570	2520
Mercury, Total	0.11 U	70.7	0.61	0.1 U	0.35	0.096 U
Potassium, Total	105	456	238	214	159	113
Magnesium, Total	33	108	232	10.6	89.6	82.5
Manganese, Total	0.95	19700	47.5	0.92	19.2	1.7
Sodium, Total	11.6	69	17	8.6	9.7	10.4
Nickel, Total	1.9 U	117	3	1.9 U	2 U	2.1 U
Lead, Total	2.7	3030	40.6	1.2	20.5	4.5
Antimony, Total	2.9 U	139 U	3.7 U	2.9 U	3.1 U	3.3 U
Selenium, Total	0.28 U	0.52 U	0.35 U	0.33 U	0.31 U	0.26 U
Thallium, Total	0.28 U	16 U	0.35 U	0.33 U	0.31 U	0.26 U
Vanadium, Total	1.9	13.9	20	1.2	4.1	6.4
Zinc, Total	6.3	63900	187	4.4	101	7.3
Cyanide	0.46 U	2.1	0.56 U	0.54 U	0.51 U	0.4 U
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	NA	NA	NA	NA	NA	NA
Arsenic, TCLP Leachate	NA	NA	NA	NA	NA	NA
Barium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Cadmium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Chromium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Lead, TCLP Leachate	NA	NA	NA	NA	NA	NA
Mercury, TCLP Leachate	NA	NA	NA	NA	NA	NA
Selenium, TCLP Leachate	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB03-03	85-SB04-00	85-SB04-02	85-SB04-03	85-SB05-00	85-SB05-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
VOLATILES (ug/kg)						
Chloromethane	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Xylene (total)	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB03-03	85-SB04-00	85-SB04-02	85-SB04-03	85-SB05-00	85-SB05-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)						
Phenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB03-03	85-SB04-00	85-SB04-02	85-SB04-03	85-SB05-00	85-SB05-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB03-03	85-SB04-00	85-SB04-02	85-SB04-03	85-SB05-00	85-SB05-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA
Endrin Keytone	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA
Aroclor-1016	NA	NA	NA	NA	NA	NA
Aroclor-1221	NA	NA	NA	NA	NA	NA
Aroclor-1232	NA	NA	NA	NA	NA	NA
Aroclor-1242	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB03-03	85-SB04-00	85-SB04-02	85-SB04-03	85-SB05-00	85-SB05-02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Corrosivity by pH	NA	NA	NA	NA	NA	NA
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.42 U	0.56 U	0.48 U	0.45 U	0.59 U	0.56 U
Aluminum, Total	592	3190	3460	475	1870	5220
Arsenic, Total	0.32	0.55	1.1	0.98	0.55	1.6
Barium, Total	0.81	9.4	4.8	0.78	6.9	7.5
Beryllium, Total	0.24 U	0.32 U	0.28 U	0.26 U	0.34 U	0.32 U
Calcium, Total	9.5	196	19.7	7.8	91.9	18.8
Cadmium, Total	0.45 U	0.61 U	0.52 U	0.48 U	0.63 U	0.6 U
Cobalt, Total	0.36 U	0.48 U	0.41 U	0.38 U	0.5 U	0.47 U
Chromium, Total	0.96	3.2	5.3	2.2	3.3	6.1
Copper, Total	0.35	8.1	0.43	0.35	0.88	1
Iron, Total	980	1990	2590	1420	1480	3790
Mercury, Total	0.11 U	0.12 U	0.11 U	0.15	0.12 U	0.1 U
Potassium, Total	116	158	98.7 U	92.4 U	238	242
Magnesium, Total	14.3	104	87.6	11.1	62.2	148
Manganese, Total	0.65	218	5.2	0.26	3.8	1.9
Sodium, Total	4.7	12.5	10.2	8	10.5	11.2
Nickel, Total	1.9 U	2.5 U	4.4	2 U	3.5	2.5 U
Lead, Total	1.2	4.9	2.7	2.2	10.8	4.8
Antimony, Total	2.9 U	3.9 U	3.3 U	3.1 U	4.1 U	3.8 U
Selenium, Total	0.23 U	0.31 U	0.27 U	0.31 U	0.34 U	0.32 U
Thallium, Total	0.23 U	0.31 U	0.27 U	0.31 U	0.34 U	0.32 U
Vanadium, Total	2	5.1	7.3	2.8	5.9	10.4
Zinc, Total	1.1	359	6.1	1.8	5.2	1.5
Cyanide	0.51 U	0.56 U	0.51 U	0.51 U	0.57 U	0.51 U
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	NA	NA	NA	NA	NA	NA
Arsenic, TCLP Leachate	NA	NA	NA	NA	NA	NA
Barium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Cadmium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Chromium, TCLP Leachate	NA	NA	NA	NA	NA	NA
Lead, TCLP Leachate	NA	NA	NA	NA	NA	NA
Mercury, TCLP Leachate	NA	NA	NA	NA	NA	NA
Selenium, TCLP Leachate	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB05-03
MATRIX	SOIL
Corrosivity by pH	NA
VOLATILES (ug/kg)	
Chloromethane	NA
Bromomethane	NA
Vinyl chloride	NA
Chloroethane	NA
Methylene Chloride	NA
Acetone	NA
Carbon Disulfide	NA
1,1-Dichloroethene	NA
1,1-Dichloroethane	NA
1,2-Dichloroethene (total)	NA
Chloroform	NA
1,2-Dichloroethane	NA
2-Butanone	NA
1,1,1-Trichloroethane	NA
Carbon Tetrachloride	NA
Bromodichloromethane	NA
1,2-Dichloropropane	NA
cis-1,3-Dichloropropene	NA
Trichloroethene	NA
Dibromochloromethane	NA
1,1,2-Trichloroethane	NA
Benzene	NA
trans-1,3-Dichloropropene	NA
Bromoform	NA
4-Methyl-2-pentanone	NA
2-Hexanone	NA
Tetrachloroethene	NA
1,1,2,2-Tetrachloroethane	NA
Toluene	NA
Chlorobenzene	NA
Ethylbenzene	NA
Styrene	NA
Xylene (total)	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB05-03
MATRIX	SOIL
Corrosivity by pH	NA
SEMIVOLATILES (ug/kg)	
Phenol	NA
bis(2-Chloroethyl)ether	NA
2-Chlorophenol	NA
1,3-Dichlorobenzene	NA
1,4-Dichlorobenzene	NA
1,2-Dichlorobenzene	NA
2-Methylphenol	NA
2,2'-oxybis(1-Chloropropane	NA
4-Methylphenol	NA
N-Nitroso-di-n-propylamine	NA
Hexachloroethane	NA
Nitrobenzene	NA
Isophorone	NA
2-Nitrophenol	NA
2,4-Dimethylphenol	NA
bis(2-Chloroethoxy)methane	NA
2,4-Dichlorophenol	NA
1,2,4-Trichlorobenzene	NA
Naphthalene	NA
4-Chloroaniline	NA
Hexachlorobutadiene	NA
4-Chloro-3-methylphenol	NA
2-Methylnaphthalene	NA
Hexachlorocyclopentadiene	NA
2,4,6-Trichlorophenol	NA
2,4,5-Trichlorophenol	NA
2-Chloronaphthalene	NA
2-Nitroaniline	NA
Dimethylphthalate	NA
Acenaphthylene	NA
2,6-Dinitrotoluene	NA
3-Nitroaniline	NA
Acenaphthene	NA
2,4-Dinitrophenol	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB05-03
MATRIX	SOIL
Corrosivity by pH	NA

SEMIVOLATILES (ug/kg) cont.	
4-Nitrophenol	NA
Dibenzofuran	NA
2,4-Dinitrotoluene	NA
Diethylphthalate	NA
4-Chlorophenyl-phenylether	NA
Fluorene	NA
4-Nitroaniline	NA
4,6-Dinitro-2-methylphenol	NA
N-Nitrosodiphenylamine (1)	NA
4-Bromophenyl-phenylether	NA
Hexachlorobenzene	NA
Pentachlorophenol	NA
Phenanthrene	NA
Anthracene	NA
Carbazole	NA
Di-n-butylphthalate	NA
Fluoranthene	NA
Pyrene	NA
Butylbenzylphthalate	NA
3,3'-Dichlorobenzidine	NA
Benzo(a)anthracene	NA
Chrysene	NA
bis(2-Ethylhexyl)phthalate	NA
Di-n-octyl phthalate	NA
Benzo(b)fluoranthene	NA
Benzo(k)fluoranthene	NA
Benzo(a)pyrene	NA
Indeno(1,2,3-cd)pyrene	NA
Dibenzo(a,h)anthracene	NA
Benzo(g,h,i)perylene	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB05-03
MATRIX	SOIL
Corrosivity by pH	NA
PESTICIDE/PCBS (ug/kg)	
alpha-BHC	NA
beta-BHC	NA
delta-BHC	NA
gamma-BHC (Lindane)	NA
Heptachlor	NA
Aldrin	NA
Heptachlor epoxide	NA
Endosulfan I	NA
Dieldrin	NA
4,4'-DDE	NA
Endrin	NA
Endosulfan II	NA
4,4'-DDD	NA
Endosulfan sulfate	NA
4,4'-DDT	NA
Methoxychlor	NA
Endrin Keytone	NA
Endrin aldehyde	NA
alpha-Chlordane	NA
gamma-Chlordane	NA
Toxaphene	NA
Aroclor-1016	NA
Aroclor-1221	NA
Aroclor-1232	NA
Aroclor-1242	NA
Aroclor-1248	NA
Aroclor-1254	NA
Aroclor-1260	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-SB05-03
MATRIX	SOIL
Corrosivity by pH	NA
TOTAL ANALYTES (mg/kg)	
Silver, Total	0.52 U
Aluminum, Total	1540
Arsenic, Total	0.38
Barium, Total	2.2
Beryllium, Total	0.3 U
Calcium, Total	13.3
Cadmium, Total	0.56 U
Cobalt, Total	0.44 U
Chromium, Total	2.3
Copper, Total	0.38 U
Iron, Total	935
Mercury, Total	0.088 U
Potassium, Total	107 U
Magnesium, Total	52.9
Manganese, Total	1.5
Sodium, Total	8.4
Nickel, Total	2.3 U
Lead, Total	1.7
Antimony, Total	3.6 U
Selenium, Total	0.32 U
Thallium, Total	0.32 U
Vanadium, Total	3.5
Zinc, Total	1.5
Cyanide	0.43 U
TCLP ANALYTES (ug/L)	
Silver, TCLP Leachate	NA
Arsenic, TCLP Leachate	NA
Barium, TCLP Leachate	NA
Cadmium, TCLP Leachate	NA
Chromium, TCLP Leachate	NA
Lead, TCLP Leachate	NA
Mercury, TCLP Leachate	NA
Selenium, TCLP Leachate	NA

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX Corrosivity by pH	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg)						
Chloromethane	11 U	14 U	ND	ND		0/15
Bromomethane	11 U	14 U	ND	ND		0/15
Vinyl chloride	11 U	14 U	ND	ND		0/15
Chloroethane	11 U	14 U	ND	ND		0/15
Methylene Chloride	11 U	14 U	ND	ND		0/15
Acetone	10 JB	57 B	26	26	10-SB05-00	1/15
Carbon Disulfide	11 U	14 U	ND	ND		0/15
1,1-Dichloroethene	11 U	14 U	ND	ND		0/15
1,1-Dichloroethane	11 U	14 U	ND	ND		0/15
1,2-Dichloroethene (total)	11 U	14 U	ND	ND		0/15
Chloroform	11 U	14 U	ND	ND		0/15
1,2-Dichloroethane	11 U	14 U	ND	ND		0/15
2-Butanone	11 U	14 U	ND	ND		0/15
1,1,1-Trichloroethane	11 U	14 U	ND	ND		0/15
Carbon Tetrachloride	11 U	14 U	ND	ND		0/15
Bromodichloromethane	11 U	14 U	ND	ND		0/15
1,2-Dichloropropane	11 U	14 U	ND	ND		0/15
cis-1,3-Dichloropropene	11 U	14 U	ND	ND		0/15
Trichloroethene	11 U	14 U	ND	ND		0/15
Dibromochloromethane	11 U	14 U	ND	ND		0/15
1,1,2-Trichloroethane	11 U	14 U	ND	ND		0/15
Benzene	11 U	14 U	ND	ND		0/15
trans-1,3-Dichloropropene	11 U	14 U	ND	ND		0/15
Bromoform	11 U	14 U	ND	ND		0/15
4-Methyl-2-pentanone	11 U	14 U	ND	ND		0/15
2-Hexanone	11 U	14 U	ND	ND		0/15
Tetrachloroethene	11 U	14 U	ND	ND		0/15
1,1,2,2-Tetrachloroethane	11 U	14 U	ND	ND		0/15
Toluene	11 U	14 U	ND	ND		0/15
Chlorobenzene	11 U	14 U	ND	ND		0/15
Ethylbenzene	11 U	14 U	ND	ND		0/15
Styrene	11 U	14 U	ND	ND		0/15
Xylene (total)	11 U	14 U	ND	ND		0/15

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX Corrosivity by pH	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg)						
Phenol	350 U	450 U	46 J	46 J	10-SB02-02	1/15
bis(2-Chloroethyl)ether	350 U	450 U	ND	ND		0/15
2-Chlorophenol	350 U	450 U	ND	ND		0/15
1,3-Dichlorobenzene	350 U	450 U	ND	ND		0/15
1,4-Dichlorobenzene	350 U	450 U	ND	ND		0/15
1,2-Dichlorobenzene	350 U	450 U	ND	ND		0/15
2-Methylphenol	350 U	450 U	ND	ND		0/15
2,2'-oxybis(1-Chloropropane	350 U	450 U	ND	ND		0/15
4-Methylphenol	350 U	450 U	ND	ND		0/15
N-Nitroso-di-n-propylamine	350 U	450 U	ND	ND		0/15
Hexachloroethane	350 U	450 U	ND	ND		0/15
Nitrobenzene	350 U	450 U	ND	ND		0/15
Isophorone	350 U	450 U	ND	ND		0/15
2-Nitrophenol	350 U	450 U	ND	ND		0/15
2,4-Dimethylphenol	350 U	450 U	ND	ND		0/15
bis(2-Chloroethoxy)methane	350 U	450 U	ND	ND		0/15
2,4-Dichlorophenol	350 U	450 U	ND	ND		0/15
1,2,4-Trichlorobenzene	350 U	450 U	ND	ND		0/15
Naphthalene	350 U	450 U	380 J	380 J	10-SB03-00	1/15
4-Chloroaniline	350 U	450 U	ND	ND		0/15
Hexachlorobutadiene	350 U	450 U	ND	ND		0/15
4-Chloro-3-methylphenol	350 U	450 U	ND	ND		0/15
2-Methylnaphthalene	350 U	450 U	140 J	140 J	10-SB03-00	1/15
Hexachlorocyclopentadiene	350 U	450 U	ND	ND		0/15
2,4,6-Trichlorophenol	350 U	450 U	ND	ND		0/15
2,4,5-Trichlorophenol	880 U	1100 U	ND	ND		0/15
2-Chloronaphthalene	350 U	450 U	ND	ND		0/15
2-Nitroaniline	880 U	1100 U	ND	ND		0/15
Dimethylphthalate	350 U	450 U	ND	ND		0/15
Acenaphthylene	350 U	450 U	50 J	50 J	10-SB03-00	1/15
2,6-Dinitrotoluene	350 U	450 U	ND	ND		0/15
3-Nitroaniline	880 U	1100 U	ND	ND		0/15
Acenaphthene	350 U	450 U	58 J	930	10-SB03-00	2/15
2,4-Dinitrophenol	880 U	1100 U	ND	ND		0/15

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX Corrosivity by pH	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
4-Nitrophenol	880 U	1100 U	ND	ND		0/15
Dibenzofuran	350 U	450 U	470	470	10-SB03-00	1/15
2,4-Dinitrotoluene	350 U	450 U	ND	ND		0/15
Diethylphthalate	350 U	450 U	ND	ND		0/15
4-Chlorophenyl-phenylether	350 U	450 U	ND	ND		0/15
Fluorene	350 U	450 U	59 J	810	10-SB03-00	2/15
4-Nitroaniline	880 U	1100 U	ND	ND		0/15
4,6-Dinitro-2-methylphenol	880 U	1100 U	ND	ND		0/15
N-Nitrosodiphenylamine (1)	350 U	450 U	ND	ND		0/15
4-Bromophenyl-phenylether	350 U	450 U	ND	ND		0/15
Hexachlorobenzene	350 U	450 U	ND	ND		0/15
Pentachlorophenol	880 U	1100 U	ND	ND		0/15
Phenanthrene	350 U	450 U	550	4500 E	10-SB03-00	2/15
Anthracene	350 U	450 U	110 J	1400	10-SB03-00	2/15
Carbazole	350 U	450 U	61 J	830	10-SB03-00	2/15
Di-n-butylphthalate	140 JB	340 JB	ND	ND		0/15
Fluoranthene	350 U	450 U	260 J	5700 E	10-SB03-00	3/15
Pyrene	350 U	450 U	43 J	5900 E	10-SB03-00	5/15
Butylbenzylphthalate	350 U	450 U	ND	ND		0/15
3,3'-Dichlorobenzidine	350 U	450 U	ND	ND		0/15
Benzo(a)anthracene	350 U	450 U	170 J	4500 E	10-SB03-00	3/15
Chrysene	350 U	450 U	180 J	3600 E	10-SB03-00	3/15
bis(2-Ethylhexyl)phthalate	350 U	450 U	ND	ND		0/15
Di-n-octyl phthalate	350 U	450 U	ND	ND		0/15
Benzo(b)fluoranthene	350 U	450 U	260 J	4600 E	10-SB03-00	3/15
Benzo(k)fluoranthene	350 U	450 U	110 J	1300	10-SB03-00	3/15
Benzo(a)pyrene	350 U	450 U	190 J	3500 E	10-SB03-00	3/15
Indeno(1,2,3-cd)pyrene	350 U	450 U	120 J	2800	10-SB03-00	3/15
Dibenzo(a,h)anthracene	350 U	450 U	55 J	630	10-SB03-00	2/15
Benzo(g,h,i)perylene	350 U	450 U	110 J	2400	10-SB03-00	3/15

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX Corrosivity by pH	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	1.8 U	2.2 U	ND	ND		0/15
beta-BHC	1.8 U	2.2 U	ND	ND		0/15
delta-BHC	1.8 U	2.2 U	ND	ND		0/15
gamma-BHC (Lindane)	1.8 U	2.2 U	ND	ND		0/15
Heptachlor	1.8 U	2.2 U	ND	ND		0/15
Aldrin	1.8 U	2.2 U	33	33	10-SB03-00	1/15
Heptachlor epoxide	1.8 U	2.2 U	ND	ND		0/15
Endosulfan I	1.8 U	2.2 U	ND	ND		0/15
Dieldrin	3.5 U	4.5 U	ND	ND		0/15
4,4'-DDE	3.5 U	4.5 U	9.1	9.1	10-SB04-00	1/15
Endrin	3.5 U	4.5 U	ND	ND		0/15
Endosulfan II	3.5 U	4.5 U	3.9	3.9	10-SB03-00	1/15
4,4'-DDD	3.5 U	4.5 U	ND	ND		0/15
Endosulfan sulfate	3.5 U	4.5 U	ND	ND		0/15
4,4'-DDT	3.5 U	4.5 U	3.4 J	9.5	10-SB04-00	3/15
Methoxychlor	18 U	22 U	ND	ND		0/15
Endrin Keytone	3.5 U	4.5 U	ND	ND		0/15
Endrin aldehyde	3.5 U	4.5 U	ND	ND		0/15
alpha-Chlordane	1.8 U	2.2 U	ND	ND		0/15
gamma-Chlordane	1.8 U	2.2 U	ND	ND		0/15
Toxaphene	180 U	220 U	ND	ND		0/15
Aroclor-1016	35 U	45 U	ND	ND		0/15
Aroclor-1221	70 U	89 U	ND	ND		0/15
Aroclor-1232	35 U	45 U	ND	ND		0/15
Aroclor-1242	35 U	45 U	ND	ND		0/15
Aroclor-1248	35 U	45 U	ND	ND		0/15
Aroclor-1254	35 U	45 U	ND	ND		0/15
Aroclor-1260	35 U	45 U	ND	ND		0/15

FREQUENCY OF DETECTION SUMMARY
SOIL
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX Corrosivity by pH	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
TOTAL ANALYTES (mg/kg)						
Silver, Total	0.42 U	73 U	0.85	0.85	10-SB01-02	1/30
Aluminum, Total	NA	NA	348	10200	85-SB02-02	30/30
Arsenic, Total	0.28 U	0.43 U	0.32	76.8	85-SB02-00	19/30
Barium, Total	NA	NA	0.78	134	85-SB02-00	30/30
Beryllium, Total	0.24 U	0.42 U	0.39	0.39	10-SB02-00	1/30
Calcium, Total	NA	NA	7.8	1550	10-SB01-01	30/30
Cadmium, Total	0.45 U	0.7 U	0.66	47.1	85-SB02-00	3/30
Cobalt, Total	0.36 U	0.55 U	0.54	17.3	85-SB02-00	3/30
Chromium, Total	NA	NA	0.73	147	85-SB02-00	30/30
Copper, Total	0.38 U	0.38 U	0.35	1870	85-SB02-00	29/30
Iron, Total	NA	NA	161	339000	85-SB02-00	30/30
Mercury, Total	0.071 U	0.12 U	0.15	70.7	85-SB02-00	5/30
Potassium, Total	92.4 U	128 U	105	456	85-SB02-00	24/30
Magnesium, Total	NA	NA	10.6	232	85-SB02-02	30/30
Manganese, Total	NA	NA	0.26	19700	85-SB02-00	30/30
Sodium, Total	NA	NA	4.7	69	85-SB02-00	30/30
Nickel, Total	1.9 U	2.9 U	2.6	117	85-SB02-00	5/30
Lead, Total	NA	NA	0.86	3030	85-SB02-00	30/30
Antimony, Total	2.9 U	139 U	ND	ND		0/30
Selenium, Total	0.23 U	0.52 U	0.29	0.53	10-SB04-00	2/30
Thallium, Total	0.13 U	16 U	ND	ND		0/30
Vanadium, Total	NA	NA	1.2	20	85-SB02-02	30/30
Zinc, Total	0.57 U	0.74 U	0.67	63900	85-SB02-00	27/30
Cyanide	0.4 U	0.66 U	0.9	2.1	85-SB02-00	2/30
TCLP ANALYTES (ug/L)						
Silver, TCLP Leachate	50 U	50 U	ND	ND		0/1
Arsenic, TCLP Leachate	100 U	100 U	ND	ND		0/1
Barium, TCLP Leachate	500 U	500 U	ND	ND		0/1
Cadmium, TCLP Leachate	50 U	50 U	ND	ND		0/1
Chromium, TCLP Leachate	50 U	50 U	ND	ND		0/1
Lead, TCLP Leachate	50 U	50 U	ND	ND		0/1
Mercury, TCLP Leachate	10 U	10 U	ND	ND		0/1
Selenium, TCLP Leachate	100 U	100 U	ND	ND		0/1

APPENDIX A-2.2
SITES 10 AND 85 - GROUNDWATER

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-TW01	10-TW01D	10-TW02	10-TW02D	10-TW03	10-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
VOLATILES (ug/L)						
Chloromethane	10 U	NA	10 U	NA	10 U	NA
Bromomethane	10 U	NA	10 U	NA	10 U	NA
Vinyl chloride	10 U	NA	10 U	NA	10 U	NA
Chloroethane	10 U	NA	10 U	NA	10 U	NA
Methylene Chloride	10 U	NA	10 U	NA	10 U	NA
Acetone	10 U	NA	10 U	NA	33	NA
Carbon Disulfide	10 U	NA	10 U	NA	10 U	NA
1,1-Dichloroethene	10 U	NA	10 U	NA	10 U	NA
1,1-Dichloroethane	10 U	NA	10 U	NA	10 U	NA
1,2-Dichloroethene (total)	10 U	NA	10 U	NA	10 U	NA
Chloroform	10 U	NA	10 U	NA	10 U	NA
1,2-Dichloroethane	10 U	NA	10 U	NA	10 U	NA
2-Butanone	10 U	NA	10 U	NA	10 U	NA
1,1,1-Trichloroethane	10 U	NA	10 U	NA	10 U	NA
Carbon Tetrachloride	10 U	NA	10 U	NA	10 U	NA
Bromodichloromethane	10 U	NA	10 U	NA	10 U	NA
1,2-Dichloropropane	10 U	NA	10 U	NA	10 U	NA
cis-1,3-Dichloropropene	10 U	NA	10 U	NA	10 U	NA
Trichloroethene	10 U	NA	10 U	NA	10 U	NA
Dibromochloromethane	10 U	NA	10 U	NA	10 U	NA
1,1,2-Trichloroethane	10 U	NA	10 U	NA	10 U	NA
Benzene	10 U	NA	10 U	NA	10 U	NA
trans-1,3-Dichloropropene	10 U	NA	10 U	NA	10 U	NA
Bromoform	10 U	NA	10 U	NA	10 U	NA
4-Methyl-2-pentanone	10 U	NA	10 U	NA	10 U	NA
2-Hexanone	10 U	NA	10 U	NA	10 U	NA
Tetrachloroethene	10 U	NA	10 U	NA	10 U	NA
1,1,2,2-Tetrachloroethane	10 U	NA	10 U	NA	10 U	NA
Toluene	10 U	NA	10 U	NA	10 U	NA
Chlorobenzene	10 U	NA	10 U	NA	10 U	NA
Ethylbenzene	10 U	NA	10 U	NA	10 U	NA
Styrene	10 U	NA	10 U	NA	10 U	NA
Xylene (total)	10 U	NA	10 U	NA	10 U	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-TW01	10-TW01D	10-TW02	10-TW02D	10-TW03	10-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
SEMIVOLATILES (ug/L)						
Phenol	10 U	NA	10 U	NA	10 U	NA
bis(2-Chloroethyl)ether	10 U	NA	10 U	NA	10 U	NA
2-Chlorophenol	10 U	NA	10 U	NA	10 U	NA
1,3-Dichlorobenzene	10 U	NA	10 U	NA	10 U	NA
1,4-Dichlorobenzene	10 U	NA	10 U	NA	10 U	NA
1,2-Dichlorobenzene	10 U	NA	10 U	NA	10 U	NA
2-Methylphenol	10 U	NA	10 U	NA	10 U	NA
2,2'-oxybis(1-Chloropropane)	10 U	NA	10 U	NA	10 U	NA
4-Methylphenol	10 U	NA	10 U	NA	10 U	NA
N-Nitroso-di-n-propylamine	10 U	NA	10 U	NA	10 U	NA
Hexachloroethane	10 U	NA	10 U	NA	10 U	NA
Nitrobenzene	10 U	NA	10 U	NA	10 U	NA
Isophorone	10 U	NA	10 U	NA	10 U	NA
2-Nitrophenol	10 U	NA	10 U	NA	10 U	NA
2,4-Dimethylphenol	10 U	NA	10 U	NA	10 U	NA
bis(2-Chloroethoxy)methane	10 U	NA	10 U	NA	10 U	NA
2,4-Dichlorophenol	10 U	NA	10 U	NA	10 U	NA
1,2,4-Trichlorobenzene	10 U	NA	10 U	NA	10 U	NA
Naphthalene	10 U	NA	10 U	NA	10 U	NA
4-Chloroaniline	10 U	NA	10 U	NA	10 U	NA
Hexachlorobutadiene	10 U	NA	10 U	NA	10 U	NA
4-Chloro-3-methylphenol	10 U	NA	10 U	NA	10 U	NA
2-Methylnaphthalene	10 U	NA	10 U	NA	10 U	NA
Hexachlorocyclopentadiene	10 U	NA	10 U	NA	10 U	NA
2,4,6-Trichlorophenol	10 U	NA	10 U	NA	10 U	NA
2,4,5-Trichlorophenol	25 U	NA	25 U	NA	10 U	NA
2-Chloronaphthalene	10 U	NA	10 U	NA	10 U	NA
2-Nitroaniline	25 U	NA	25 U	NA	10 U	NA
Dimethylphthalate	10 U	NA	10 U	NA	10 U	NA
Acenaphthylene	10 U	NA	10 U	NA	10 U	NA
2,6-Dinitrotoluene	10 U	NA	10 U	NA	10 U	NA
3-Nitroaniline	25 U	NA	25 U	NA	10 U	NA
Acenaphthene	10 U	NA	10 U	NA	10 U	NA
2,4-Dinitrophenol	25 U	NA	25 U	NA	10 U	NA
4-Nitrophenol	25 U	NA	25 U	NA	10 U	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	10-TW01 GW	10-TW01D GW-DIS	10-TW02 GW	10-TW02D GW-DIS	10-TW03 GW	10-TW03D GW-DIS
SEMIVOLATILES (ug/L) cont.						
Dibenzofuran	10 U	NA	10 U	NA	10 U	NA
2,4-Dinitrotoluene	10 U	NA	10 U	NA	10 U	NA
Diethylphthalate	1 J	NA	10 U	NA	10 U	NA
4-Chlorophenyl-phenylether	10 U	NA	10 U	NA	10 U	NA
Fluorene	10 U	NA	10 U	NA	10 U	NA
4-Nitroaniline	25 U	NA	25 U	NA	10 U	NA
4,6-Dinitro-2-methylphenol	25 U	NA	25 U	NA	10 U	NA
N-Nitrosodiphenylamine (1)	10 U	NA	10 U	NA	10 U	NA
4-Bromophenyl-phenylether	10 U	NA	10 U	NA	10 U	NA
Hexachlorobenzene	10 U	NA	10 U	NA	10 U	NA
Pentachlorophenol	25 U	NA	25 U	NA	10 U	NA
Phenanthrene	10 U	NA	10 U	NA	10 U	NA
Anthracene	10 U	NA	10 U	NA	10 U	NA
Carbazole	10 U	NA	10 U	NA	10 U	NA
Di-n-butylphthalate	10 U	NA	10 U	NA	10 U	NA
Fluoranthene	10 U	NA	10 U	NA	10 U	NA
Pyrene	10 U	NA	10 U	NA	10 U	NA
Butylbenzylphthalate	10 U	NA	10 U	NA	10 U	NA
3,3'-Dichlorobenzidine	10 U	NA	10 U	NA	10 U	NA
Benzo(a)anthracene	10 U	NA	10 U	NA	10 U	NA
Chrysene	10 U	NA	10 U	NA	10 U	NA
bis(2-Ethylhexyl)phthalate	3 J	NA	1 J	NA	2 J	NA
Di-n-octyl phthalate	10 U	NA	10 U	NA	10 U	NA
Benzo(b)fluoranthene	10 U	NA	10 U	NA	10 U	NA
Benzo(k)fluoranthene	10 U	NA	10 U	NA	10 U	NA
Benzo(a)pyrene	10 U	NA	10 U	NA	10 U	NA
Indeno(1,2,3-cd)pyrene	10 U	NA	10 U	NA	10 U	NA
Dibenzo(a,h)anthracene	10 U	NA	10 U	NA	10 U	NA
Benzo(g,h,i)perylene	10 U	NA	10 U	NA	10 U	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-TW01	10-TW01D	10-TW02	10-TW02D	10-TW03	10-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
PESTICIDE/PCBS (ug/L)						
alpha-BHC	0.05 U	NA	0.05 U	NA	0.05 U	NA
beta-BHC	0.05 U	NA	0.05 U	NA	0.05 U	NA
delta-BHC	0.05 U	NA	0.05 U	NA	0.05 U	NA
gamma-BHC (Lindane)	0.05 U	NA	0.05 U	NA	0.05 U	NA
Heptachlor	0.05 U	NA	0.05 U	NA	0.05 U	NA
Aldrin	0.05 U	NA	0.05 U	NA	0.05 U	NA
Heptachlor epoxide	0.05 U	NA	0.05 U	NA	0.05 U	NA
Endosulfan I	0.05 U	NA	0.05 U	NA	0.05 U	NA
Dieldrin	0.1 U	NA	0.1 U	NA	0.1 U	NA
4,4'-DDE	0.1 U	NA	0.1 U	NA	0.1 U	NA
Endrin	0.1 U	NA	0.1 U	NA	0.1 U	NA
Endosulfan II	0.1 U	NA	0.1 U	NA	0.08 J	NA
4,4'-DDD	0.1 U	NA	0.1 U	NA	0.1 U	NA
Endosulfan sulfate	0.1 U	NA	0.1 U	NA	0.1 U	NA
4,4'-DDT	0.1 U	NA	0.1 U	NA	0.1 U	NA
Methoxychlor	0.5 U	NA	0.5 U	NA	0.5 U	NA
Endrin Keytone	0.1 U	NA	0.1 U	NA	0.1 U	NA
Endrin aldehyde	0.1 U	NA	0.1 U	NA	0.1 U	NA
alpha-Chlordane	0.05 U	NA	0.05 U	NA	0.05 U	NA
gamma-Chlordane	0.05 U	NA	0.05 U	NA	0.05 U	NA
Toxaphene	5 U	NA	5 U	NA	5 U	NA
Aroclor-1016	1 U	NA	1 U	NA	1 U	NA
Aroclor-1221	2 U	NA	2 U	NA	2 U	NA
Aroclor-1232	1 U	NA	1 U	NA	1 U	NA
Aroclor-1242	1 U	NA	1 U	NA	1 U	NA
Aroclor-1248	1 U	NA	1 U	NA	1 U	NA
Aroclor-1254	1 U	NA	1 U	NA	1 U	NA
Aroclor-1260	1 U	NA	1 U	NA	1 U	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID.	10-TW01	10-TW01D	10-TW02	10-TW02D	10-TW03	10-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
ANALYTES (ug/L)						
Silver	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Aluminum	10800	16.9 U	145000	117	75100	85.2
Arsenic	1.8 U	1.8 U	17.6	1.8 U	14.1	1.8 U
Barium	98.2	45.3	185	13.4	190	17.1
Beryllium	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Calcium	30000	30100	39300	33000	10200	7440
Cadmium	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Cobalt	2.2 U	2.2 U	2.2 U	2.2 U	3.9	2.2 U
Chromium	15.2	2.4 U	184	2.4 U	74.6	2.4 U
Copper	2.7	1.9 U	36.1	1.9 U	30.2	1.9 U
Iron	2780	1650	57100	1910	26800	1710
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Potassium	3180	2830	6510	859	5210	1160
Magnesium	2380	2300	7620	2740	4220	1210
Manganese	32.9	28.7	127	27	92.2	38.5
Sodium	6520	6650	6110	5960	4490	4210
Nickel	369	17.8	28	11.6 U	215	53.5
Lead	5.1	1.4 U	**48.4**	**3**	45.9	1.4 U
Antimony	18 U	18 U	18 U	18 U	18 U	18 U
Selenium	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Thallium	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Vanadium	11.6	2.6 U	388	2.6 U	175	2.6 U
Zinc	6.5	3.1 U	326	10.4	58.2	13.2
Cyanide	10 U	NA	10 U	NA	10 U	NA

NOTES:

1. Results in bold type were identified by the laboratory as having QA/QC outside of acceptable limits.
2. Data has not been validated.

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-TW01	85-TW01D	85-TW02	85-TW02D	85-TW03	85-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
VOLATILES (ug/L)						
Chloromethane	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Xylene (total)	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-TW01	85-TW01D	85-TW02	85-TW02D	85-TW03	85-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
SEMIVOLATILES (ug/L)						
Phenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 86
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-TW01	85-TW01D	85-TW02	85-TW02D	85-TW03	85-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
SEMIVOLATILES (ug/L) cont.						
Dibenzofuran	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-TW01	85-TW01D	85-TW02	85-TW02D	85-TW03	85-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
PESTICIDE/PCBS (ug/L)						
alpha-BHC	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA
Endrin Keytone	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA
Aroclor-1016	NA	NA	NA	NA	NA	NA
Aroclor-1221	NA	NA	NA	NA	NA	NA
Aroclor-1232	NA	NA	NA	NA	NA	NA
Aroclor-1242	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID.	85-TW01	85-TW01D	85-TW02	85-TW02D	85-TW03	85-TW03D
MATRIX	GW	GW-DIS	GW	GW-DIS	GW	GW-DIS
ANALYTES (ug/L)						
Silver	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Aluminum	159000	79.9	429000	175	223000	105
Arsenic	10.9	1.8 U	16.7	1.8 U	20.2	1.8 U
Barium	242	13.8	548	8.3	377	15.4
Beryllium	1.5 U	1.5 U	3.3	1.5 U	2.8	1.5 U
Calcium	2420	766	6180	1940	2070	633
Cadmium	6.7	2.8 U	24.6	3.4	4.9	2.8 U
Cobalt	8.6	2.2 U	20.3	2.2 U	7.1	2.2 U
Chromium	436	2.4 U	821	2.4 U	383	2.4 U
Copper	138	2.2	173	1.9 U	55.4	1.9 U
Iron	119000	4770	498000	10500	180000	2600
Mercury	0.28	0.2 U	2.4	0.2 U	0.29	0.2 U
Potassium	5480	686	16000	1400	8300	775
Magnesium	5530	866	13700	477	11500	1790
Manganese	395	55.1	1270	224	228	32.6
Sodium	1850	1640	2660	1970	5580	4520
Nickel	4550	206	206	11.6 U	53.3	11.6 U
Lead	207	1.4 U	512	1.4 U	380	2.2
Antimony	18 U	18 U	18 U	18 U	18 U	18 U
Selenium	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Thallium	0.8 U	0.8 U	4 U	0.8 U	0.8 U	0.8 U
Vanadium	322	2.6 U	908	2.6 U	436	2.6 U
Zinc	485	58.8	3970	473	93.1	4.6
Cyanide	10 U	NA	10 U	NA	10 U	NA

NOTES:

1. Results in bold type were identified by the laboratory as having QA/QC outside of acceptable limits.
2. Data has not been validated.

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/L)						
Chloromethane	10 U	10 U	ND	ND		0/3
Bromomethane	10 U	10 U	ND	ND		0/3
Vinyl chloride	10 U	10 U	ND	ND		0/3
Chloroethane	10 U	10 U	ND	ND		0/3
Methylene Chloride	10 U	10 U	ND	ND		0/3
Acetone	10 U	10 U	33	33	10-TW03	1/3
Carbon Disulfide	10 U	10 U	ND	ND		0/3
1,1-Dichloroethene	10 U	10 U	ND	ND		0/3
1,1-Dichloroethane	10 U	10 U	ND	ND		0/3
1,2-Dichloroethene (total)	10 U	10 U	ND	ND		0/3
Chloroform	10 U	10 U	ND	ND		0/3
1,2-Dichloroethane	10 U	10 U	ND	ND		0/3
2-Butanone	10 U	10 U	ND	ND		0/3
1,1,1-Trichloroethane	10 U	10 U	ND	ND		0/3
Carbon Tetrachloride	10 U	10 U	ND	ND		0/3
Bromodichloromethane	10 U	10 U	ND	ND		0/3
1,2-Dichloropropane	10 U	10 U	ND	ND		0/3
cis-1,3-Dichloropropene	10 U	10 U	ND	ND		0/3
Trichloroethene	10 U	10 U	ND	ND		0/3
Dibromochloromethane	10 U	10 U	ND	ND		0/3
1,1,2-Trichloroethane	10 U	10 U	ND	ND		0/3
Benzene	10 U	10 U	ND	ND		0/3
trans-1,3-Dichloropropene	10 U	10 U	ND	ND		0/3
Bromoform	10 U	10 U	ND	ND		0/3
4-Methyl-2-pentanone	10 U	10 U	ND	ND		0/3
2-Hexanone	10 U	10 U	ND	ND		0/3
Tetrachloroethene	10 U	10 U	ND	ND		0/3
1,1,2,2-Tetrachloroethane	10 U	10 U	ND	ND		0/3
Toluene	10 U	10 U	ND	ND		0/3
Chlorobenzene	10 U	10 U	ND	ND		0/3
Ethylbenzene	10 U	10 U	ND	ND		0/3
Styrene	10 U	10 U	ND	ND		0/3
Xylene (total)	10 U	10 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L)						
Phenol	10 U	10 U	ND	ND		0/3
bis(2-Chloroethyl)ether	10 U	10 U	ND	ND		0/3
2-Chlorophenol	10 U	10 U	ND	ND		0/3
1,3-Dichlorobenzene	10 U	10 U	ND	ND		0/3
1,4-Dichlorobenzene	10 U	10 U	ND	ND		0/3
1,2-Dichlorobenzene	10 U	10 U	ND	ND		0/3
2-Methylphenol	10 U	10 U	ND	ND		0/3
2,2'-oxybis(1-Chloropropane)	10 U	10 U	ND	ND		0/3
4-Methylphenol	10 U	10 U	ND	ND		0/3
N-Nitroso-di-n-propylamine	10 U	10 U	ND	ND		0/3
Hexachloroethane	10 U	10 U	ND	ND		0/3
Nitrobenzene	10 U	10 U	ND	ND		0/3
Isophorone	10 U	10 U	ND	ND		0/3
2-Nitrophenol	10 U	10 U	ND	ND		0/3
2,4-Dimethylphenol	10 U	10 U	ND	ND		0/3
bis(2-Chloroethoxy)methane	10 U	10 U	ND	ND		0/3
2,4-Dichlorophenol	10 U	10 U	ND	ND		0/3
1,2,4-Trichlorobenzene	10 U	10 U	ND	ND		0/3
Naphthalene	10 U	10 U	ND	ND		0/3
4-Chloroaniline	10 U	10 U	ND	ND		0/3
Hexachlorobutadiene	10 U	10 U	ND	ND		0/3
4-Chloro-3-methylphenol	10 U	10 U	ND	ND		0/3
2-Methylnaphthalene	10 U	10 U	ND	ND		0/3
Hexachlorocyclopentadiene	10 U	10 U	ND	ND		0/3
2,4,6-Trichlorophenol	10 U	10 U	ND	ND		0/3
2,4,5-Trichlorophenol	10 U	25 U	ND	ND		0/3
2-Chloronaphthalene	10 U	10 U	ND	ND		0/3
2-Nitroaniline	10 U	25 U	ND	ND		0/3
Dimethylphthalate	10 U	10 U	ND	ND		0/3
Acenaphthylene	10 U	10 U	ND	ND		0/3
2,6-Dinitrotoluene	10 U	10 U	ND	ND		0/3
3-Nitroaniline	10 U	25 U	ND	ND		0/3
Acenaphthene	10 U	10 U	ND	ND		0/3
2,4-Dinitrophenol	10 U	25 U	ND	ND		0/3
4-Nitrophenol	10 U	25 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L) cont.						
Dibenzofuran	10 U	10 U	ND	ND		0/3
2,4-Dinitrotoluene	10 U	10 U	ND	ND		0/3
Diethylphthalate	10 U	10 U	1 J	1 J	10-TW01	1/3
4-Chlorophenyl-phenylether	10 U	10 U	ND	ND		0/3
Fluorene	10 U	10 U	ND	ND		0/3
4-Nitroaniline	10 U	25 U	ND	ND		0/3
4,6-Dinitro-2-methylphenol	10 U	25 U	ND	ND		0/3
N-Nitrosodiphenylamine (1)	10 U	10 U	ND	ND		0/3
4-Bromophenyl-phenylether	10 U	10 U	ND	ND		0/3
Hexachlorobenzene	10 U	10 U	ND	ND		0/3
Pentachlorophenol	10 U	25 U	ND	ND		0/3
Phenanthrene	10 U	10 U	ND	ND		0/3
Anthracene	10 U	10 U	ND	ND		0/3
Carbazole	10 U	10 U	ND	ND		0/3
Di-n-butylphthalate	10 U	10 U	ND	ND		0/3
Fluoranthene	10 U	10 U	ND	ND		0/3
Pyrene	10 U	10 U	ND	ND		0/3
Butylbenzylphthalate	10 U	10 U	ND	ND		0/3
3,3'-Dichlorobenzidine	10 U	10 U	ND	ND		0/3
Benzo(a)anthracene	10 U	10 U	ND	ND		0/3
Chrysene	10 U	10 U	ND	ND		0/3
bis(2-Ethylhexyl)phthalate	NA	NA	1 J	3 J	10-TW01	3/3
Di-n-octyl phthalate	10 U	10 U	ND	ND		0/3
Benzo(b)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(k)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(a)pyrene	10 U	10 U	ND	ND		0/3
Indeno(1,2,3-cd)pyrene	10 U	10 U	ND	ND		0/3
Dibenzo(a,h)anthracene	10 U	10 U	ND	ND		0/3
Benzo(g,h,i)perylene	10 U	10 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBS (ug/L)						
alpha-BHC	0.05 U	0.05 U	ND	ND		0/3
beta-BHC	0.05 U	0.05 U	ND	ND		0/3
delta-BHC	0.05 U	0.05 U	ND	ND		0/3
gamma-BHC (Lindane)	0.05 U	0.05 U	ND	ND		0/3
Heptachlor	0.05 U	0.05 U	ND	ND		0/3
Aldrin	0.05 U	0.05 U	ND	ND		0/3
Heptachlor epoxide	0.05 U	0.05 U	ND	ND		0/3
Endosulfan I	0.05 U	0.05 U	ND	ND		0/3
Dieldrin	0.1 U	0.1 U	ND	ND		0/3
4,4'-DDE	0.1 U	0.1 U	ND	ND		0/3
Endrin	0.1 U	0.1 U	ND	ND		0/3
Endosulfan II	0.1 U	0.1 U	0.08 J	0.08 J	10-TW03	1/3
4,4'-DDD	0.1 U	0.1 U	ND	ND		0/3
Endosulfan sulfate	0.1 U	0.1 U	ND	ND		0/3
4,4'-DDT	0.1 U	0.1 U	ND	ND		0/3
Methoxychlor	0.5 U	0.5 U	ND	ND		0/3
Endrin Keytone	0.1 U	0.1 U	ND	ND		0/3
Endrin aldehyde	0.1 U	0.1 U	ND	ND		0/3
alpha-Chlordane	0.05 U	0.05 U	ND	ND		0/3
gamma-Chlordane	0.05 U	0.05 U	ND	ND		0/3
Toxaphene	5 U	5 U	ND	ND		0/3
Aroclor-1016	1 U	1 U	ND	ND		0/3
Aroclor-1221	2 U	2 U	ND	ND		0/3
Aroclor-1232	1 U	1 U	ND	ND		0/3
Aroclor-1242	1 U	1 U	ND	ND		0/3
Aroclor-1248	1 U	1 U	ND	ND		0/3
Aroclor-1254	1 U	1 U	ND	ND		0/3
Aroclor-1260	1 U	1 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 10 AND 85
MCB CAMP LEJEUNE, NC

SAMPLE ID. MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
ANALYTES (ug/L)						
Silver	2.6 U	2.6 U	ND	ND		0/12
Aluminum	16.9 U	16.9 U	79.9	429000	85-TW02	11/12
Arsenic	1.8 U	1.8 U	10.9	20.2	85-TW03	5/12
Barium	NA	NA	8.3	548	85-TW02	12/12
Beryllium	1.5 U	1.5 U	2.8	3.3	85-TW02	2/12
Calcium	NA	NA	633	39300	10-TW02	12/12
Cadmium	2.8 U	2.8 U	3.4	24.6	85-TW02	4/12
Cobalt	2.2 U	2.2 U	3.9	20.3	85-TW02	4/12
Chromium	2.4 U	2.4 U	15.2	821	85-TW02	6/12
Copper	1.9 U	1.9 U	2.2	173	85-TW02	7/12
Iron	NA	NA	1650	498000	85-TW02	12/12
Mercury	0.2 U	0.2 U	0.28	2.4	85-TW02	3/12
Potassium	NA	NA	686	16000	85-TW02	12/12
Magnesium	NA	NA	477	13700	85-TW02	12/12
Manganese	NA	NA	27	1270	85-TW02	12/12
Sodium	NA	NA	1640	6650	10-TW01D	12/12
Nickel	11.6 U	11.6 U	17.8	4550	85-TW01	9/12
Lead	1.4 U	1.4 U	2.2	512	85-TW02	8/12
Antimony	18 U	18 U	ND	ND		0/12
Selenium	1.6 U	1.6 U	ND	ND		0/12
Thallium	0.8 U	4 U	ND	ND		0/12
Vanadium	2.6 U	2.6 U	11.6	908	85-TW02	6/12
Zinc	3.1 U	3.1 U	4.6	3970	85-TW02	11/12
Cyanide	10 U	10 U	ND	ND		0/6

NOTES:

1. Results in bold type were identified by the laboratory as having QA/QC outside of acceptable limits.
2. Data has not been validated.

APPENDIX A-2.3
SITES 11 AND 17 - SURFACE SOIL

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
VOLATILES (ug/kg)						
Chloromethane	10 U	10 U	11 U	10 U	11 U	12 U
Bromomethane	10 U	10 U	11 U	10 U	11 U	12 U
Vinyl chloride	10 U	10 U	11 U	10 U	11 U	12 U
Chloroethane	10 U	10 U	11 U	10 U	11 U	12 U
Methylene Chloride	5 U	5 U	5 U	5 U	5 U	6 U
Acetone	16 B	13 B	11 B	19	11 U	12 U
Carbon Disulfide	5 U	5 U	5 U	5 U	5 U	6 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	6 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	6 U
1,2-Dichloroethene (total)	5 U	5 U	5 U	5 U	5 U	6 U
Chloroform	5 U	5 U	5 U	5 U	5 U	6 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	6 U
2-Butanone	10 U	10 U	11 U	10 U	11 U	12 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	6 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 U	6 U
Vinyl acetate	10 U	10 U	11 U	10 U	11 U	12 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	6 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	6 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	6 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	6 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	6 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	6 U
Benzene	5 U	5 U	5 U	5 U	5 U	6 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	6 U
Bromoform	5 U	5 U	5 U	5 U	5 U	6 U
4-Methyl-2-pentanone	10 U	10 U	11 U	10 U	11 U	12 U
2-Hexanone	10 U	10 U	11 U	10 U	11 U	12 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	6 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	6 U
Toluene	5 U	5 U	5 U	5 U	5 U	6 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	6 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	6 U
Styrene	5 U	5 U	5 U	5 U	5 U	6 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U	6 U
Acrolein	520 U	520 U	540 U	520 U	530 U	580 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
VOLATILES (ug/kg) cont.						
Acrylonitrile	100 U	100 U	110 U	100 U	110 U	120 U
Trichlorofluoromethane	10 U	10 U	11 U	10 U	11 U	12 U
Dichlorodifluoromethane	21 U	21 U	21 U	21 U	21 U	23 U
Acetonitrile	100 U	100 U	110 U	100 U	110 U	120 U
Iodomethane	10 U	10 U	11 U	10 U	11 U	12 U
Propionitrile (Ethyl Cyanide)	52 U	52 U	54 U	52 U	53 U	58 U
3-Chloropropene	21 U	21 U	21 U	21 U	21 U	23 U
Methacrylonitrile	21 U	21 U	21 U	21 U	21 U	23 U
Dibromomethane	10 U	10 U	11 U	10 U	11 U	12 U
Isobutyl alcohol	2100 U	2100 U	2100 U	2100 U	2100 U	2300 U
1,2-Dibromoethane	21 U	21 U	21 U	21 U	21 U	23 U
1,1,1,2-Tetrachloroethane	10 U	10 U	11 U	10 U	11 U	12 U
1,2,3-Trichloropropane	10 U	10 U	11 U	10 U	11 U	12 U
trans-1,4-Dichloro-2-butene	21 U	21 U	21 U	21 U	22 U	23 U
1,2-Dibromo-3-chloropropane	21 U	21 U	21 U	21 U	21 U	23 U
2-Chloro-1,3-Butadiene	100 U	100 U	110 U	100 U	110 U	120 U
Methylmethacrylate	21 U	21 U	21 U	21 U	21 U	23 U
Ethylmethacrylate	21 U	21 U	21 U	21 U	21 U	23 U
Pentachloroethane	21 U	21 U	21 U	21 U	21 U	23 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
SEMIVOLATILES (ug/kg)						
Phenol	340 U	340 U	350 U	350 U	350 U	380 U
bis(2-Chloroethyl)ether	340 U	340 U	350 U	350 U	350 U	380 U
2-Chlorophenol	340 U	340 U	350 U	350 U	350 U	380 U
1,3-Dichlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
1,4-Dichlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
Benzyl alcohol	340 U	340 U	350 U	350 U	350 U	380 U
1,2-Dichlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
o-Cresol	340 U	340 U	350 U	350 U	350 U	380 U
2,2'-oxybis(1-Chloropropane)	340 U	340 U	350 U	350 U	350 U	380 U
meta & para-Cresol	340 U	340 U	350 U	350 U	350 U	380 U
N-Nitroso-di-n-propylamine	340 U	340 U	350 U	350 U	350 U	380 U
Hexachloroethane	340 U	340 U	350 U	350 U	350 U	380 U
Nitrobenzene	340 U	340 U	350 U	350 U	350 U	380 U
Isophorone	340 U	340 U	350 U	350 U	350 U	380 U
2-Nitrophenol	340 U	340 U	350 U	350 U	350 U	380 U
2,4-Dimethylphenol	340 U	340 U	350 U	350 U	350 U	380 U
Benzoic acid	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
bis(2-Chloroethoxy)methane	340 U	340 U	350 U	350 U	350 U	380 U
2,4-Dichlorophenol	340 U	340 U	350 U	350 U	350 U	380 U
1,2,4-Trichlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
Naphthalene	340 U	340 U	350 U	350 U	420	380 U
4-Chloroaniline	340 U	340 U	350 U	350 U	350 U	380 U
Hexachlorobutadiene	340 U	340 U	350 U	350 U	350 U	380 U
4-Chloro-3-methylphenol	340 U	340 U	350 U	350 U	350 U	380 U
2-Methylnaphthalene	340 U	340 U	350 U	350 U	270 J	380 U
Hexachlorocyclopentadiene	340 U	340 U	350 U	350 U	350 U	380 U
2,4,6-Trichlorophenol	340 U	340 U	350 U	350 U	350 U	380 U
2,4,5-Trichlorophenol	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
2-Chloronaphthalene	340 U	340 U	350 U	350 U	350 U	380 U
2-Nitroaniline	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Dimethylphthalate	340 U	340 U	350 U	350 U	350 U	380 U
Acenaphthylene	40 J	340 U	71 J	52 J	62 J	380 U
2,6-Dinitrotoluene	340 U	340 U	350 U	350 U	350 U	380 U
3-Nitroaniline	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Acenaphthene	340 U	340 U	370	58 J	2500	380 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
SEMIVOLATILES (ug/kg) cont.						
2,4-Dinitrophenol	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
4-Nitrophenol	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Dibenzofuran	340 U	340 U	93 J	350 U	720	380 U
2,4-Dinitrotoluene	340 U	340 U	350 U	350 U	350 U	380 U
Diethylphthalate	340 U	340 U	350 U	350 U	350 U	380 U
4-Chlorophenyl-phenylether	340 U	340 U	350 U	350 U	350 U	380 U
Fluorene	340 U	340 U	190 J	350 U	1500	380 U
4-Nitroaniline	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
4,6-Dinitro-2-methylphenol	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
N-Nitrosodiphenylamine (1)	340 U	340 U	350 U	350 U	350 U	380 U
4-Bromophenyl-phenylether	340 U	340 U	350 U	350 U	350 U	380 U
Hexachlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
Pentachlorophenol	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Phenanthrene	120 J	42 J	2300	560	15000	380 U
Anthracene	47 J	340 U	570	190 J	3100	380 U
Di-n-butylphthalate	180 JB	200 JB	220 JB	470 B	280 JB	250 JB
Fluoranthene	760	350	3500	1400	23000	380 U
Pyrene	950	390	4700	1700	21000	380 U
Butylbenzylphthalate	340 U	340 U	47 J	200 J	120 J	380 U
3,3'-Dichlorobenzidine	670 U	680 U	700 U	700 U	700 U	750 U
Benzo(a)anthracene	370	150 J	2100	890	11000	380 U
Chrysene	670	280 J	2400	1300	13000	380 U
bis(2-Ethylhexyl)phthalate	54 J	340 U	150 J	100 J	350 U	39 J
Di-n-octyl phthalate	340 U	340 U	350 U	350 U	350 U	380 U
Benzo(b)fluoranthene	760	280 J	3800	1700	14000	380 U
Benzo(k)fluoranthene	310 J	120 J	1100	640	3500	380 U
Benzo(a)pyrene	340	130 J	2000	920	8200	380 U
Indeno(1,2,3-cd)pyrene	330 J	91 J	930	630	4200	380 U
Dibenzo(a,h)anthracene	77 J	340 U	220 J	140 J	1100	380 U
Benzo(g,h,i)perylene	330 J	340 U	820	580	170 J	380 U
1,4-Dioxane	1300 U	1400 U	1400 U	1400 U	1400 U	1500 U
Pyridine	670 U	680 U	700 U	700 U	700 U	750 U
N-Nitrosodimethylamine	340 U	340 U	350 U	350 U	350 U	380 U
2-Picoline	340 U	340 U	350 U	350 U	350 U	380 U
N-Nitrosomethylethylamine	340 U	340 U	350 U	350 U	350 U	380 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
SEMIVOLATILES (ug/kg) cont.						
Methyl methanesulfonate	340 U	340 U	350 U	350 U	350 U	380 U
N-Nitrosodiethylamine	340 U	340 U	350 U	350 U	350 U	380 U
Ethyl methanesulfonate	340 U	340 U	350 U	350 U	350 U	380 U
Aniline	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
N-Nitrosopyrrolidine	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Acetophenone	340 U	340 U	350 U	350 U	350 U	380 U
N-Nitrosomorpholine	670 U	680 U	700 U	700 U	700 U	750 U
o-Toluidine	340 U	340 U	350 U	350 U	350 U	380 U
N-Nitrosopiperidine	340 U	340 U	350 U	350 U	350 U	380 U
a,a-Dimethylphenethylamine	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
2,6-Dichlorophenol	340 U	340 U	350 U	350 U	350 U	380 U
Hexachloropropene	670 U	680 U	700 U	700 U	700 U	750 U
p-Phenylenediamine	670 U	780 U	700 U	700 U	700 U	750 U
N-Nitroso-di-n-butylamine	340 U	340 U	350 U	350 U	350 U	380 U
Safrole	340 U	340 U	350 U	350 U	350 U	380 U
1,2,4,5-Tetrachlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
Isosafrole	340 U	340 U	350 U	350 U	350 U	380 U
1,4-Naphthoquinone	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
1,3-Dinitrobenzene	670 U	680 U	700 U	700 U	700 U	750 U
Pentachlorobenzene	340 U	340 U	350 U	350 U	350 U	380 U
1-Naphthylamine	340 U	340 U	350 U	350 U	350 U	380 U
2-Naphthylamine	340 U	340 U	350 U	350 U	350 U	380 U
2,3,4,6-Tetrachlorophenol	340 U	340 U	350 U	350 U	350 U	380 U
1,3,5-Trinitrobenzene	3400 U	3400 U	3500 U	3500 U	3500 U	3800 U
Diallate	340 U	340 U	350 U	350 U	350 U	380 U
Phenacetin	340 U	340 U	350 U	350 U	350 U	380 U
Diphenylamine	340 U	340 U	350 U	350 U	350 U	380 U
5-Nitro-o-toluidine	670 U	680 U	700 U	700 U	700 U	750 U
4-Aminobiphenyl	340 U	340 U	350 U	350 U	350 U	380 U
Pronamide	340 U	340 U	350 U	350 U	350 U	380 U
2-sec-Butyl-4,6-dinitrophenol	670 U	680 U	700 U	700 U	700 U	750 U
Pentachloronitrobenzene	340 U	340 U	350 U	350 U	350 U	380 U
4-Nitroquinoline-1-oxide	1700 U	1700 U	1700 U	1700 U	1800 U	1900 U
Methapyrilene	840 U	840 U	870 U	870 U	880 U	940 U
Aramite	670 U	680 U	700 U	700 U	700 U	750 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
SEMIVOLATILES (ug/kg) cont.						
Chlorobenzilate	340 U	340 U	350 U	350 U	350 U	380 U
p-Dimethylaminoazobenzene	670 U	680 U	700 U	700 U	700 U	750 U
3,3'-Dimethylbenzidine	670 U	680 U	700 U	700 U	700 U	750 U
2-Acetylaminofluorene	670 U	680 U	700 U	700 U	700 U	750 U
7,12-Dimethylbenz(a)anthracene	670 U	680 U	700 U	700 U	700 U	750 U
Hexachlorophene	3400 U	3500 U	3500 U	3500 U	3500 U	3800 U
3-Methylcholanthrene	340 U	340 U	350 U	350 U	350 U	380 U
EPA METHOD 8141 (ug/kg)						
o,o,o-Triethyl phosphorothioate	27 U	27 U	28 U	27 U	28 U	NA
Thionazin	27 U	27 U	28 U	27 U	28 U	NA
Sulfotep	27 U	27 U	28 U	27 U	28 U	NA
Phorate	62 U	62 U	64 U	62 U	63 U	NA
Dimethoate	100 U	99 U	100 U	99 U	100 U	NA
Disulfoton	69 U	68 U	71 U	69 U	70 U	NA
Methyl parathion	69 U	68 U	71 U	69 U	70 U	NA
Ethyl Parathion	69 U	68 U	71 U	69 U	70 U	NA
Famphur	69 U	68 U	71 U	69 U	70 U	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	41 U	4.1 U	21 U	21 U	21 U	NA
beta-BHC	41 U	4.1 U	21 U	21 U	21 U	NA
delta-BHC	41 U	4.1 U	21 U	21 U	21 U	NA
gamma-BHC (Lindane)	41 U	4.1 U	21 U	21 U	21 U	NA
Heptachlor	41 U	4.1 U	21 U	21 U	21 U	NA
Aldrin	41 U	4.1 U	21 U	21 U	21 U	NA
Heptachlor epoxide	41 U	1.7	10	6.2	49	NA
Endosulfan I	41 U	4.1 U	21 U	21 U	21 U	NA
Dieldrin	82 U	8.2 U	43 U	41 U	7.4 J	NA
4,4'-DDE	82 U	8.2 U	15	16	53	NA
Endrin	82 U	8.2 U	43 U	41 U	42 U	NA
Endosulfan II	82 U	8.2 U	43 U	41 U	42 U	NA
4,4'-DDD	82 U	8.2 U	4.3 J	41 U	9.5	NA
Endosulfan sulfate	82 U	8.2 U	43 U	41 U	42 U	NA
4,4'-DDT	13 J	8.2 U	8.5 J	10	16	NA
Methoxychlor	410 U	41 U	210 U	210 U	210 U	NA
Endrin aldehyde	82 U	8.2 U	43 U	41 U	42 U	NA
Isodrin	41 U	4.1 U	21 U	21 U	21 U	NA
Kepone	82 U	8.2 U	43 U	41 U	42 U	NA
alpha-Chlordane	410 U	41 U	210 U	210 U	210 U	NA
gamma-Chlordane	410 U	41 U	210 U	210 U	30	NA
Toxaphene	820 U	82 U	430 U	410 U	420 U	NA
Aroclor-1016	410 U	41 U	210 U	210 U	210 U	45 U
Aroclor-1221	410 U	41 U	210 U	210 U	210 U	45 U
Aroclor-1232	410 U	41 U	210 U	210 U	210 U	45 U
Aroclor-1242	410 U	41 U	210 U	210 U	210 U	45 U
Aroclor-1248	410 U	41 U	210 U	210 U	210 U	45 U
Aroclor-1254	820 U	82 U	430 U	410 U	420 U	91 U
Aroclor-1260	820 U	82 U	430 U	410 U	420 U	91 U
HERBICIDES (ug/kg)						
2,4-D	330 U	340 U	350 U	350 U	350 U	NA
2,4,5-TP (Silvex)	67 U	68 U	69 U	69 U	70 U	NA
2,4,5-T	67 U	68 U	69 U	69 U	70 U	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
PCDD/PCDF (ug/kg)						
2378-TCDD	0.28 U	0.18 U	0.12 U	0.05 U	0.41 U	NA
Total TCDD	0.28 U	0.23 U	0.12 U	0.08 U	0.46 U	NA
Total PECDD	0.92 U	0.48 U	0.17 U	0.11 U	0.54 U	NA
Total HXCDD	0.42 U	0.31 U	0.82 JS	0.75 JS	0.76 JS	NA
Total TCDF	0.27 U	0.16 U	0.07 U	0.04 U	0.60 U	NA
Total PECDF	0.44 U	0.25 U	0.16 JS	0.15 U	0.18 JS	NA
Total HXCDF	0.60 U	0.30 U	1.1 JS	0.93 JS	0.94 J	NA
TPH (ug/kg)						
Gasoline	NA	NA	33 U	30 U	33 U	33 U
Diesel Fuel	NA	NA	44 U	4.4 U	44 U	47 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SS01	6SS02	AOCBSS01	AOCBSS02	AOCBSS03	12SS01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	96.8	96.4	93.3	95.3	94.2	87.2
ANALYTES (mg/kg)						
Silver	0.24 U	0.15 U	0.21 U	0.27 U	0.27 U	NA
Arsenic	2.1	2.9	3.6	5.5	4.8	NA
Barium	69.3	19.2	50.3	72.2	48.0	NA
Beryllium	0.14 U	0.088 U	0.12 U	0.16 U	0.16 U	NA
Cadmium	1.1	0.28	1.3	1.1	1.2	NA
Cobalt	10.0	4.6	8.7	14.2	7.0	NA
Chromium	35.3	7.1	17.7	18.1	20.1	NA
Copper	177	26.5	80.0	124	59.5	NA
Mercury	12.9	0.28	0.49	0.84	0.18	NA
Nickel	9.6	2.6	7.4	10.4	6.5	NA
Lead	200	10.9	129	63.2	102	NA
Antimony	1.6 U	1.1 U	1.5 U	1.9 U	1.9 U	NA
Selenium	0.096 U	0.091 U	0.77 U	0.16	0.77 U	NA
Tin	1.6 U	1.0 U	1.5 U	1.8 U	1.9 U	NA
Thallium	0.096 U	0.091 U	0.15 U	0.15 U	0.15 U	NA
Vanadium	62.6	28.1	60.5	83.7	52.8	NA
Zinc	210	25.5	167	119	167	NA
Cyanide	0.38 U	0.46 U	0.49 U	0.40 U	0.50 U	NA
Sulfide	23.1 U	25.4 U	26.8 U	25.5 U	26.3 U	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
VOLATILES (ug/kg)				
Chloromethane	11 U	11 U	60 U	12 U
Bromomethane	11 U	11 U	60 U	12 U
Vinyl chloride	11 U	11 U	60 U	12 U
Chloroethane	11 U	11 U	60 U	12 U
Methylene Chloride	6 U	5 U	30 U	6 U
Acetone	11 U	11 U	60 U	12 U
Carbon Disulfide	6 U	5 U	30 U	6 U
1,1-Dichloroethene	6 U	5 U	30 U	6 U
1,1-Dichloroethane	6 U	5 U	30 U	6 U
1,2-Dichloroethene (total)	6 U	5 U	30 U	6 U
Chloroform	6 U	5 U	30 U	6 U
1,2-Dichloroethane	6 U	5 U	30 U	6 U
2-Butanone	11 U	11 U	60 U	12 U
1,1,1-Trichloroethane	6 U	5 U	30 U	6 U
Carbon Tetrachloride	6 U	5 U	30 U	6 U
Vinyl acetate	11 U	11 U	60 U	12 U
Bromodichloromethane	6 U	5 U	30 U	6 U
1,2-Dichloropropane	6 U	5 U	30 U	6 U
cis-1,3-Dichloropropene	6 U	5 U	30 U	6 U
Trichloroethene	6 U	5 U	30 U	6 U
Dibromochloromethane	6 U	5 U	30 U	6 U
1,1,2-Trichloroethane	6 U	5 U	30 U	6 U
Benzene	6 U	5 U	30 U	6 U
trans-1,3-Dichloropropene	6 U	5 U	30 U	6 U
Bromoform	6 U	5 U	30 U	6 U
4-Methyl-2-pentanone	11 U	11 U	60 U	12 U
2-Hexanone	11 U	11 U	60 U	12 U
Tetrachloroethene	6 U	5 U	30 U	6 U
1,1,2,2-Tetrachloroethane	6 U	5 U	30 U	6 U
Toluene	6 U	5 U	30 U	6 U
Chlorobenzene	6 U	5 U	30 U	6 U
Ethylbenzene	6 U	5 U	30 U	6 U
Styrene	6 U	5 U	30 U	6 U
Xylene (total)	6 U	5 U	30 U	6 U
Acrolein	570 U	540 U	3000 U	580 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
VOLATILES (ug/kg) cont.				
Acrylonitrile	110 U	110 U	600 U	120 U
Trichlorofluoromethane	11 U	11 U	60 U	12 U
Dichlorodifluoromethane	23 U	22 U	120 U	23 U
Acetonitrile	110 U	110 U	600 U	120 U
Iodomethane	11 U	11 U	60 U	12 U
Propionitrile (Ethyl Cyanide)	57 U	54 U	300 U	58 U
3-Chloropropene	23 U	22 U	120 U	23 U
Methacrylonitrile	23 U	22 U	120 U	23 U
Dibromomethane	11 U	11 U	60 U	12 U
Isobutyl alcohol	2300 U	2200 U	12000 U	2300 U
1,2-Dibromoethane	23 U	22 U	120 U	23 U
1,1,1,2-Tetrachloroethane	11 U	11 U	60 U	12 U
1,2,3-Trichloropropane	11 U	11 U	60 U	12 U
trans-1,4-Dichloro-2-butene	23 U	22 U	120 U	23 U
1,2-Dibromo-3-chloropropane	23 U	22 U	120 U	23 U
2-Chloro-1,3-Butadiene	110 U	110 U	600 U	120 U
Methylmethacrylate	23 U	22 U	120 U	23 U
Ethylmethacrylate	23 U	22 U	120 U	23 U
Pentachloroethane	23 U	22 U	120 U	23 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
SEMIVOLATILES (ug/kg)				
Phenol	370 U	360 U	390 U	380 U
bis(2-Chloroethyl)ether	370 U	360 U	390 U	380 U
2-Chlorophenol	370 U	360 U	390 U	380 U
1,3-Dichlorobenzene	370 U	360 U	390 U	380 U
1,4-Dichlorobenzene	370 U	360 U	390 U	380 U
Benzyl alcohol	370 U	360 U	390 U	380 U
1,2-Dichlorobenzene	370 U	110 J	120 J	120 J
o-Cresol	370 U	360 U	390 U	380 U
2,2'-oxybis(1-Chloropropane)	370 U	360 U	390 U	380 U
meta & para-Cresol	370 U	360 U	390 U	380 U
N-Nitroso-di-n-propylamine	370 U	360 U	390 U	380 U
Hexachloroethane	370 U	360 U	390 U	380 U
Nitrobenzene	370 U	360 U	390 U	380 U
Isophorone	370 U	360 U	390 U	380 U
2-Nitrophenol	370 U	360 U	390 U	380 U
2,4-Dimethylphenol	370 U	360 U	390 U	380 U
Benzoic acid	1800 U	1800 U	1900 U	1900 U
bis(2-Chloroethoxy)methane	370 U	360 U	390 U	380 U
2,4-Dichlorophenol	370 U	360 U	390 U	380 U
1,2,4-Trichlorobenzene	370 U	360 U	390 U	380 U
Naphthalene	370 U	360 U	390 U	380 U
4-Chloroaniline	370 U	360 U	390 U	380 U
Hexachlorobutadiene	370 U	360 U	390 U	380 U
4-Chloro-3-methylphenol	370 U	360 U	390 U	380 U
2-Methylnaphthalene	370 U	360 U	390 U	380 U
Hexachlorocyclopentadiene	370 U	360 U	390 U	380 U
2,4,6-Trichlorophenol	370 U	360 U	390 U	380 U
2,4,5-Trichlorophenol	1800 U	1800 U	1900 U	1900 U
2-Chloronaphthalene	370 U	360 U	390 U	380 U
2-Nitroaniline	1800 U	1800 U	1900 U	1900 U
Dimethylphthalate	370 U	360 U	390 U	380 U
Acenaphthylene	370 U	360 U	390 U	380 U
2,6-Dinitrotoluene	370 U	360 U	390 U	380 U
3-Nitroaniline	1800 U	1800 U	1900 U	1900 U
Acenaphthene	370 U	360 U	390 U	380 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
SEMIVOLATILES (ug/kg) cont.				
2,4-Dinitrophenol	1800 U	1800 U	1900 U	1900 U
4-Nitrophenol	1800 U	1800 U	1900 U	1900 U
Dibenzofuran	370 U	360 U	390 U	380 U
2,4-Dinitrotoluene	370 U	360 U	390 U	380 U
Diethylphthalate	370 U	360 U	390 U	380 U
4-Chlorophenyl-phenylether	370 U	360 U	390 U	380 U
Fluorene	370 U	360 U	390 U	380 U
4-Nitroaniline	1800 U	1800 U	1900 U	1900 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1900 U	1900 U
N-Nitrosodiphenylamine (1)	370 U	360 U	390 U	380 U
4-Bromophenyl-phenylether	370 U	360 U	390 U	380 U
Hexachlorobenzene	370 U	360 U	390 U	380 U
Pentachlorophenol	1800 U	1800 U	1900 U	1900 U
Phenanthrene	370 U	360 U	390 U	380 U
Anthracene	370 U	360 U	390 U	380 U
Di-n-butylphthalate	300 JB	680 B	710 B	1000 B
Fluoranthene	370 U	360 U	200 J	380 U
Pyrene	370 U	360 U	380 J	41 J
Butylbenzylphthalate	370 U	270 J	220 J	260 J
3,3'-Dichlorobenzidine	740 U	720 U	770 U	760 U
Benzo(a)anthracene	370 U	360 U	68 J	380 U
Chrysene	370 U	360 U	76 J	380 U
bis(2-Ethylhexyl)phthalate	370 U	360 U	390 U	380 U
Di-n-octyl phthalate	370 U	360 U	390 U	380 U
Benzo(b)fluoranthene	370 U	360 U	390 U	380 U
Benzo(k)fluoranthene	370 U	360 U	390 U	380 U
Benzo(a)pyrene	370 U	360 U	390 U	380 U
Indeno(1,2,3-cd)pyrene	370 U	360 U	61 J	380 U
Dibenzo(a,h)anthracene	370 U	360 U	390 U	380 U
Benzo(g,h,i)perylene	370 U	360 U	100 J	380 U
1,4-Dioxane	1500 U	1400 U	1500 U	1500 U
Pyridine	740 U	720 U	770 U	760 U
N-Nitrosodimethylamine	370 U	360 U	390 U	380 U
2-Picoline	370 U	360 U	390 U	380 U
N-Nitrosomethylethylamine	370 U	360 U	390 U	380 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
SEMIVOLATILES (ug/kg) cont.				
Methyl methanesulfonate	370 U	360 U	390 U	380 U
N-Nitrosodiethylamine	370 U	360 U	390 U	380 U
Ethyl methanesulfonate	370 U	360 U	390 U	380 U
Aniline	1800 U	1800 U	1900 U	1900 U
N-Nitrosopyrrolidine	1800 U	1800 U	1900 U	1900 U
Acetophenone	370 U	360 U	390 U	380 U
N-Nitrosomorpholine	740 U	720 U	770 U	760 U
o-Toluidine	370 U	360 U	390 U	380 U
N-Nitrosopiperidine	370 U	360 U	390 U	380 U
a,a-Dimethylphenethylamine	1800 U	1800 U	1900 U	1900 U
2,6-Dichlorophenol	370 U	360 U	390 U	380 U
Hexachloropropene	740 U	720 U	770 U	760 U
p-Phenylenediamine	740 U	720 U	770 U	760 U
N-Nitroso-di-n-butylamine	370 U	360 U	390 U	380 U
Safrole	370 U	360 U	390 U	380 U
1,2,4,5-Tetrachlorobenzene	370 U	360 U	390 U	380 U
Isosafrole	370 U	360 U	390 U	380 U
1,4-Naphthoquinone	1800 U	1800 U	1900 U	1900 U
1,3-Dinitrobenzene	740 U	720 U	770 U	760 U
Pentachlorobenzene	370 U	360 U	390 U	380 U
1-Naphthylamine	370 U	360 U	390 U	380 U
2-Naphthylamine	370 U	360 U	390 U	380 U
2,3,4,6-Tetrachlorophenol	370 U	360 U	390 U	380 U
1,3,5-Trinitrobenzene	3700 U	3600 U	3900 U	3800 U
Diallate	370 U	360 U	390 U	380 U
Phenacetin	370 U	360 U	390 U	380 U
Diphenylamine	370 U	360 U	390 U	380 U
5-Nitro-o-toluidine	740 U	720 U	770 U	760 U
4-Aminobiphenyl	370 U	360 U	390 U	380 U
Pronamide	370 U	360 U	390 U	380 U
2-sec-Butyl-4,6-dinitrophenol	740 U	720 U	770 U	760 U
Pentachloronitrobenzene	370 U	360 U	390 U	380 U
4-Nitroquinoline-1-oxide	1800 U	1800 U	1900 U	1900 U
Methapyrilene	920 U	900 U	970 U	950 U
Aramite	740 U	720 U	770 U	760 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
SEMIVOLATILES (ug/kg) cont.				
Chlorobenzilate	370 U	360 U	390 U	380 U
p-Dimethylaminoazobenzene	740 U	720 U	770 U	760 U
3,3'-Dimethylbenzidine	740 U	720 U	770 U	760 U
2-Acetylaminofluorene	740 U	720 U	770 U	760 U
7,12-Dimethylbenz(a)anthracene	740 U	720 U	770 U	760 U
Hexachlorophene	3700 U	3600 U	3900 U	3800 U
3-Methylcholanthrene	370 U	360 U	390 U	380 U
EPA METHOD 8141 (ug/kg)				
o,o,o-Triethyl phosphorothioate	NA	NA	NA	NA
Thionazin	NA	NA	NA	NA
Sulfotep	NA	NA	NA	NA
Phorate	NA	NA	NA	NA
Dimethoate	NA	NA	NA	NA
Disulfoton	NA	NA	NA	NA
Methyl parathion	NA	NA	NA	NA
Ethyl Parathion	NA	NA	NA	NA
Famphur	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
PESTICIDE/PCBS (ug/kg)				
alpha-BHC	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA
Endrin	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA
4,4'-DDD	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA
Kepone	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA
Aroclor-1016	45 U	42 U	46 U	46 U
Aroclor-1221	45 U	42 U	46 U	46 U
Aroclor-1232	45 U	42 U	46 U	46 U
Aroclor-1242	45 U	42 U	46 U	46 U
Aroclor-1248	45 U	42 U	46 U	46 U
Aroclor-1254	91 U	85 U	93 U	91 U
Aroclor-1260	91 U	14	15	22
HERBICIDES (ug/kg)				
2,4-D	NA	NA	NA	NA
2,4,5-TP (Silvex)	NA	NA	NA	NA
2,4,5-T	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
PCDD/PCDF (ug/kg)				
2378-TCDD	NA	NA	NA	NA
Total TCDD	NA	NA	NA	NA
Total PECDD	NA	NA	NA	NA
Total HXCDD	NA	NA	NA	NA
Total TCDF	NA	NA	NA	NA
Total PECDF	NA	NA	NA	NA
Total HXCDF	NA	NA	NA	NA
TPH (ug/kg)				
Gasoline	33 U	33 U	180 U	36 U
Diesel Fuel	47 U	44 U	2300	48 U

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	12SS02	14SS01	14SS02	14SS03
MATRIX	SOIL	SOIL	SOIL	SOIL
% Solids	88.0	92.3	84.1	85.5
ANALYTES (mg/kg)				
Silver	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Mercury	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Selenium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Cyanide	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg)						
Chloromethane	10 U	60 U	ND	ND		0/10
Bromomethane	10 U	60 U	ND	ND		0/10
Vinyl chloride	10 U	60 U	ND	ND		0/10
Chloroethane	10 U	60 U	ND	ND		0/10
Methylene Chloride	5 U	30 U	ND	ND		0/10
Acetone	11 B	60 U	19	19	AOCBSS02	1/10
Carbon Disulfide	5 U	30 U	ND	ND		0/10
1,1-Dichloroethene	5 U	30 U	ND	ND		0/10
1,1-Dichloroethane	5 U	30 U	ND	ND		0/10
1,2-Dichloroethene (total)	5 U	30 U	ND	ND		0/10
Chloroform	5 U	30 U	ND	ND		0/10
1,2-Dichloroethane	5 U	30 U	ND	ND		0/10
2-Butanone	10 U	60 U	ND	ND		0/10
1,1,1-Trichloroethane	5 U	30 U	ND	ND		0/10
Carbon Tetrachloride	5 U	30 U	ND	ND		0/10
Vinyl acetate	10 U	60 U	ND	ND		0/10
Bromodichloromethane	5 U	30 U	ND	ND		0/10
1,2-Dichloropropane	5 U	30 U	ND	ND		0/10
cis-1,3-Dichloropropene	5 U	30 U	ND	ND		0/10
Trichloroethene	5 U	30 U	ND	ND		0/10
Dibromochloromethane	5 U	30 U	ND	ND		0/10
1,1,2-Trichloroethane	5 U	30 U	ND	ND		0/10
Benzene	5 U	30 U	ND	ND		0/10
trans-1,3-Dichloropropene	5 U	30 U	ND	ND		0/10
Bromoform	5 U	30 U	ND	ND		0/10
4-Methyl-2-pentanone	10 U	60 U	ND	ND		0/10
2-Hexanone	10 U	60 U	ND	ND		0/10
Tetrachloroethene	5 U	30 U	ND	ND		0/10
1,1,2,2-Tetrachloroethane	5 U	30 U	ND	ND		0/10
Toluene	5 U	30 U	ND	ND		0/10
Chlorobenzene	5 U	30 U	ND	ND		0/10
Ethylbenzene	5 U	30 U	ND	ND		0/10
Styrene	5 U	30 U	ND	ND		0/10
Xylene (total)	5 U	30 U	ND	ND		0/10
Acrolein	520 U	3000 U	ND	ND		0/10

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg) cont.						
Acrylonitrile	100 U	600 U	ND	ND		0/10
Trichlorofluoromethane	10 U	60 U	ND	ND		0/10
Dichlorodifluoromethane	21 U	120 U	ND	ND		0/10
Acetonitrile	100 U	600 U	ND	ND		0/10
Iodomethane	10 U	60 U	ND	ND		0/10
Propionitrile (Ethyl Cyanide)	52 U	300 U	ND	ND		0/10
3-Chloropropene	21 U	120 U	ND	ND		0/10
Methacrylonitrile	21 U	120 U	ND	ND		0/10
Dibromomethane	10 U	60 U	ND	ND		0/10
Isobutyl alcohol	2100 U	12000 U	ND	ND		0/10
1,2-Dibromoethane	21 U	120 U	ND	ND		0/10
1,1,1,2-Tetrachloroethane	10 U	60 U	ND	ND		0/10
1,2,3-Trichloropropane	10 U	60 U	ND	ND		0/10
trans-1,4-Dichloro-2-butene	21 U	120 U	ND	ND		0/10
1,2-Dibromo-3-chloropropane	21 U	120 U	ND	ND		0/10
2-Chloro-1,3-Butadiene	100 U	600 U	ND	ND		0/10
Methylmethacrylate	21 U	120 U	ND	ND		0/10
Ethylmethacrylate	21 U	120 U	ND	ND		0/10
Pentachloroethane	21 U	120 U	ND	ND		0/10

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg)						
Phenol	340 U	390 U	ND	ND		0/10
bis(2-Chloroethyl)ether	340 U	390 U	ND	ND		0/10
2-Chlorophenol	340 U	390 U	ND	ND		0/10
1,3-Dichlorobenzene	340 U	390 U	ND	ND		0/10
1,4-Dichlorobenzene	340 U	390 U	ND	ND		0/10
Benzyl alcohol	340 U	390 U	ND	ND		0/10
1,2-Dichlorobenzene	340 U	380 U	110 J	120 J	14SS03	3/10
o-Cresol	340 U	390 U	ND	ND		0/10
2,2'-oxybis(1-Chloropropane)	340 U	390 U	ND	ND		0/10
meta & para-Cresol	340 U	390 U	ND	ND		0/10
N-Nitroso-di-n-propylamine	340 U	390 U	ND	ND		0/10
Hexachloroethane	340 U	390 U	ND	ND		0/10
Nitrobenzene	340 U	390 U	ND	ND		0/10
Isophorone	340 U	390 U	ND	ND		0/10
2-Nitrophenol	340 U	390 U	ND	ND		0/10
2,4-Dimethylphenol	340 U	390 U	ND	ND		0/10
Benzoic acid	1700 U	1900 U	ND	ND		0/10
bis(2-Chloroethoxy)methane	340 U	390 U	ND	ND		0/10
2,4-Dichlorophenol	340 U	390 U	ND	ND		0/10
1,2,4-Trichlorobenzene	340 U	390 U	ND	ND		0/10
Naphthalene	340 U	390 U	420	420	AOCBSS03	1/10
4-Chloroaniline	340 U	390 U	ND	ND		0/10
Hexachlorobutadiene	340 U	390 U	ND	ND		0/10
4-Chloro-3-methylphenol	340 U	390 U	ND	ND		0/10
2-Methylnaphthalene	340 U	390 U	270 J	270 J	AOCBSS03	1/10
Hexachlorocyclopentadiene	340 U	390 U	ND	ND		0/10
2,4,6-Trichlorophenol	340 U	390 U	ND	ND		0/10
2,4,5-Trichlorophenol	1700 U	1900 U	ND	ND		0/10
2-Chloronaphthalene	340 U	390 U	ND	ND		0/10
2-Nitroaniline	1700 U	1900 U	ND	ND		0/10
Dimethylphthalate	340 U	390 U	ND	ND		0/10
Acenaphthylene	340 U	390 U	40 J	71 J	AOCBSS01	4/10
2,6-Dinitrotoluene	340 U	390 U	ND	ND		0/10
3-Nitroaniline	1700 U	1900 U	ND	ND		0/10
Acenaphthene	340 U	390 U	58 J	2500	AOCBSS03	3/10

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
2,4-Dinitrophenol	1700 U	1900 U	ND	ND		0/10
4-Nitrophenol	1700 U	1900 U	ND	ND		0/10
Dibenzofuran	340 U	390 U	93 J	720	AOCBSS03	2/10
2,4-Dinitrotoluene	340 U	390 U	ND	ND		0/10
Diethylphthalate	340 U	390 U	ND	ND		0/10
4-Chlorophenyl-phenylether	340 U	390 U	ND	ND		0/10
Fluorene	340 U	390 U	190 J	1500	AOCBSS03	2/10
4-Nitroaniline	1700 U	1900 U	ND	ND		0/10
4,6-Dinitro-2-methylphenol	1700 U	1900 U	ND	ND		0/10
N-Nitrosodiphenylamine (1)	340 U	390 U	ND	ND		0/10
4-Bromophenyl-phenylether	340 U	390 U	ND	ND		0/10
Hexachlorobenzene	340 U	390 U	ND	ND		0/10
Pentachlorophenol	1700 U	1900 U	ND	ND		0/10
Phenanthrene	360 U	390 U	42 J	15000	AOCBSS03	5/10
Anthracene	340 U	390 U	47 J	3100	AOCBSS03	4/10
Di-n-butylphthalate	180 JB	1000 B	ND	ND		0/10
Fluoranthene	360 U	380 U	200 J	23000	AOCBSS03	6/10
Pyrene	360 U	380 U	41 J	21000	AOCBSS03	7/10
Butylbenzylphthalate	340 U	380 U	47 J	270 J	14SS01	6/10
3,3'-Dichlorobenzidine	670 U	770 U	ND	ND		0/10
Benzo(a)anthracene	360 U	380 U	68 J	11000	AOCBSS03	6/10
Chrysene	360 U	380 U	76 J	13000	AOCBSS03	6/10
bis(2-Ethylhexyl)phthalate	340 U	390 U	39 J	150 J	AOCBSS01	4/10
Di-n-octyl phthalate	340 U	390 U	ND	ND		0/10
Benzo(b)fluoranthene	360 U	390 U	280 J	14000	AOCBSS03	5/10
Benzo(k)fluoranthene	360 U	390 U	120 J	3500	AOCBSS03	5/10
Benzo(a)pyrene	360 U	390 U	130 J	8200	AOCBSS03	5/10
Indeno(1,2,3-cd)pyrene	360 U	380 U	61 J	4200	AOCBSS03	6/10
Dibenzo(a,h)anthracene	340 U	390 U	77 J	1100	AOCBSS03	4/10
Benzo(g,h,i)perylene	340 U	380 U	100 J	820	AOCBSS01	5/10
1,4-Dioxane	1300 U	1500 U	ND	ND		0/10
Pyridine	670 U	770 U	ND	ND		0/10
N-Nitrosodimethylamine	340 U	390 U	ND	ND		0/10
2-Picoline	340 U	390 U	ND	ND		0/10
N-Nitrosomethylethylamine	340 U	390 U	ND	ND		0/10

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
Methyl methanesulfonate	340 U	390 U	ND	ND		0/10
N-Nitrosodiethylamine	340 U	390 U	ND	ND		0/10
Ethyl methanesulfonate	340 U	390 U	ND	ND		0/10
Aniline	1700 U	1900 U	ND	ND		0/10
N-Nitrosopyrrolidine	1700 U	1900 U	ND	ND		0/10
Acetophenone	340 U	390 U	ND	ND		0/10
N-Nitrosomorpholine	670 U	770 U	ND	ND		0/10
o-Toluidine	340 U	390 U	ND	ND		0/10
N-Nitrosopiperidine	340 U	390 U	ND	ND		0/10
a,a-Dimethylphenethylamine	1700 U	1900 U	ND	ND		0/10
2,6-Dichlorophenol	340 U	390 U	ND	ND		0/10
Hexachloropropene	670 U	770 U	ND	ND		0/10
p-Phenylenediamine	670 U	780 U	ND	ND		0/10
N-Nitroso-di-n-butylamine	340 U	390 U	ND	ND		0/10
Safrole	340 U	390 U	ND	ND		0/10
1,2,4,5-Tetrachlorobenzene	340 U	390 U	ND	ND		0/10
Isosafrole	340 U	390 U	ND	ND		0/10
1,4-Naphthoquinone	1700 U	1900 U	ND	ND		0/10
1,3-Dinitrobenzene	670 U	770 U	ND	ND		0/10
Pentachlorobenzene	340 U	390 U	ND	ND		0/10
1-Naphthylamine	340 U	390 U	ND	ND		0/10
2-Naphthylamine	340 U	390 U	ND	ND		0/10
2,3,4,6-Tetrachlorophenol	340 U	390 U	ND	ND		0/10
1,3,5-Trinitrobenzene	3400 U	3900 U	ND	ND		0/10
Diallate	340 U	390 U	ND	ND		0/10
Phenacetin	340 U	390 U	ND	ND		0/10
Diphenylamine	340 U	390 U	ND	ND		0/10
5-Nitro-o-toluidine	670 U	770 U	ND	ND		0/10
4-Aminobiphenyl	340 U	390 U	ND	ND		0/10
Pronamide	340 U	390 U	ND	ND		0/10
2-sec-Butyl-4,6-dinitrophenol	670 U	770 U	ND	ND		0/10
Pentachloronitrobenzene	340 U	390 U	ND	ND		0/10
4-Nitroquinoline-1-oxide	1700 U	1900 U	ND	ND		0/10
Methapyrilene	840 U	970 U	ND	ND		0/10
Aramite	670 U	770 U	ND	ND		0/10

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
Chlorobenzilate	340 U	390 U	ND	ND		0/10
p-Dimethylaminoazobenzene	670 U	770 U	ND	ND		0/10
3,3'-Dimethylbenzidine	670 U	770 U	ND	ND		0/10
2-Acetylaminofluorene	670 U	770 U	ND	ND		0/10
7,12-Dimethylbenz(a)anthracene	670 U	770 U	ND	ND		0/10
Hexachlorophene	3400 U	3900 U	ND	ND		0/10
3-Methylcholanthrene	340 U	390 U	ND	ND		0/10
EPA METHOD 8141 (ug/kg)						
o,o,o-Triethyl phosphorothioate	27 U	28 U	ND	ND		0/5
Thionazin	27 U	28 U	ND	ND		0/5
Sulfotep	27 U	28 U	ND	ND		0/5
Phorate	62 U	64 U	ND	ND		0/5
Dimethoate	99 U	100 U	ND	ND		0/5
Disulfoton	68 U	71 U	ND	ND		0/5
Methyl parathion	68 U	71 U	ND	ND		0/5
Ethyl Parathion	68 U	71 U	ND	ND		0/5
Famphur	68 U	71 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	4.1 U	41 U	ND	ND		0/5
beta-BHC	4.1 U	41 U	ND	ND		0/5
delta-BHC	4.1 U	41 U	ND	ND		0/5
gamma-BHC (Lindane)	4.1 U	41 U	ND	ND		0/5
Heptachlor	4.1 U	41 U	ND	ND		0/5
Aldrin	4.1 U	41 U	ND	ND		0/5
Heptachlor epoxide	41 U	41 U	1.7	49	AOCBSS03	4/5
Endosulfan I	4.1 U	41 U	ND	ND		0/5
Dieldrin	8.2 U	82 U	7.4 J	7.4 J	AOCBSS03	1/5
4,4'-DDE	8.2 U	82 U	15	53	AOCBSS03	3/5
Endrin	8.2 U	82 U	ND	ND		0/5
Endosulfan II	8.2 U	82 U	ND	ND		0/5
4,4'-DDD	8.2 U	82 U	4.3 J	9.5	AOCBSS03	2/5
Endosulfan sulfate	8.2 U	82 U	ND	ND		0/5
4,4'-DDT	8.2 U	8.2 U	8.5 J	16	AOCBSS03	4/5
Methoxychlor	41 U	410 U	ND	ND		0/5
Endrin aldehyde	8.2 U	82 U	ND	ND		0/5
Isodrin	4.1 U	41 U	ND	ND		0/5
Kepone	8.2 U	82 U	ND	ND		0/5
alpha-Chlordane	41 U	410 U	ND	ND		0/5
gamma-Chlordane	41 U	410 U	30	30	AOCBSS03	1/5
Toxaphene	82 U	820 U	ND	ND		0/5
Aroclor-1016	41 U	410 U	ND	ND		0/10
Aroclor-1221	41 U	410 U	ND	ND		0/10
Aroclor-1232	41 U	410 U	ND	ND		0/10
Aroclor-1242	41 U	410 U	ND	ND		0/10
Aroclor-1248	41 U	410 U	ND	ND		0/10
Aroclor-1254	82 U	820 U	ND	ND		0/10
Aroclor-1260	82 U	820 U	14	22	14SS03	3/10
HERBICIDES (ug/kg)						
2,4-D	330 U	350 U	ND	ND		0/5
2,4,5-TP (Silvex)	67 U	70 U	ND	ND		0/5
2,4,5-T	67 U	70 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PCDD/PCDF (ug/kg)						
2378-TCDD	0.05 U	0.41 U	ND	ND		0/5
Total TCDD	0.08 U	0.46 U	ND	ND		0/5
Total PECDD	0.11 U	0.92 U	ND	ND		0/5
Total HXCDD	0.31 U	0.42 U	0.75 JS	0.82 JS	AOCBSS01	3/5
Total TCDF	0.04 U	0.6 U	ND	ND		0/5
Total PECDF	0.15 U	0.81 U	0.16 JS	0.18 JS	AOCBSS03	2/5
Total HXCDF	0.3 U	0.6 U	0.93 JS	1.1 JS	AOCBSS01	3/5
TPH (ug/kg)						
Gasoline	30 U	180 U	ND	ND		0/8
Diesel Fuel	4.4 U	48 U	2300	2300	14SS02	1/8

FREQUENCY OF DETECTION SUMMARY
SURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
ANALYTES (mg/kg)						
Silver	0.15 U	0.27 U	ND	ND		0/5
Arsenic	NA	NA	2.1	5.5	AOCBSS02	5/5
Barium	NA	NA	19.2	72.2	AOCBSS02	5/5
Beryllium	0.088 U	0.16 U	ND	ND		0/5
Cadmium	NA	NA	0.28	1.3	AOCBSS01	5/5
Cobalt	NA	NA	4.6	14.2	AOCBSS02	5/5
Chromium	NA	NA	7.1	35.3	6SS01	5/5
Copper	NA	NA	26.5	177	6SS01	5/5
Mercury	NA	NA	0.18	12.9	6SS01	5/5
Nickel	NA	NA	2.6	10.4	AOCBSS02	5/5
Lead	NA	NA	10.9	200	6SS01	5/5
Antimony	1.1 U	1.9 U	ND	ND		0/5
Selenium	0.091 U	0.77 U	0.16	0.16	AOCBSS02	1/5
Tin	1 U	1.9 U	ND	ND		0/5
Thallium	0.091 U	0.15 U	ND	ND		0/5
Vanadium	NA	NA	28.1	83.7	AOCBSS02	5/5
Zinc	NA	NA	25.5	210	6SS01	5/5
Cyanide	0.38 U	0.5 U	ND	ND		0/5
Sulfide	23.1 U	26.8 U	ND	ND		0/5

APPENDIX A-2.4
SITES 11 AND 17 - SUBSURFACE SOIL

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
VOLATILES (ug/kg)					
Chloromethane	11 U	11 U	11 U	11 U	11 U
Bromomethane	11 U	11 U	11 U	11 U	11 U
Vinyl chloride	11 U	11 U	11 U	11 U	11 U
Chloroethane	11 U	11 U	11 U	11 U	11 U
Methylene Chloride	5 U	6 U	6 U	5 U	5 U
Acetone	14	11 U	11 U	11 U	11 U
Carbon Disulfide	5 U	6 U	6 U	5 U	5 U
1,1-Dichloroethene	5 U	6 U	6 U	5 U	5 U
1,1-Dichloroethane	5 U	6 U	6 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	6 U	6 U	5 U	5 U
Chloroform	5 U	6 U	6 U	5 U	5 U
1,2-Dichloroethane	5 U	6 U	6 U	5 U	5 U
2-Butanone	11 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	5 U	6 U	6 U	5 U	5 U
Carbon Tetrachloride	5 U	6 U	6 U	5 U	5 U
Vinyl acetate	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	5 U	6 U	6 U	5 U	5 U
1,2-Dichloropropane	5 U	6 U	6 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	6 U	6 U	5 U	5 U
Trichloroethene	5 U	6 U	6 U	5 U	5 U
Dibromochloromethane	5 U	6 U	6 U	5 U	5 U
1,1,2-Trichloroethane	5 U	6 U	6 U	5 U	5 U
Benzene	5 U	6 U	6 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	6 U	6 U	5 U	5 U
Bromoform	5 U	6 U	6 U	5 U	5 U
4-Methyl-2-pentanone	11 U	11 U	11 U	11 U	11 U
2-Hexanone	11 U	11 U	11 U	11 U	11 U
Tetrachloroethene	5 U	6 U	6 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	6 U	6 U	5 U	5 U
Toluene	5 U	6 U	6 U	5 U	5 U
Chlorobenzene	5 U	6 U	6 U	5 U	5 U
Ethylbenzene	5 U	6 U	6 U	5 U	5 U
Styrene	5 U	6 U	6 U	5 U	5 U
Xylene (total)	5 U	6 U	6 U	5 U	5 U
Acrolein	530 U	570 U	560 U	540 U	540 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
VOLATILES (ug/kg) cont.					
Acrylonitrile	110 U	110 U	110 U	110 U	110 U
Trichlorofluoromethane	11 U	11 U	11 U	11 U	11 U
Dichlorodifluoromethane	21 U	23 U	22 U	22 U	22 U
Acetonitrile	110 U	110 U	110 U	110 U	110 U
Iodomethane	11 U	11 U	11 U	11 U	11 U
Propionitrile (Ethyl Cyanide)	53 U	57 U	56 U	54 U	54 U
3-Chloropropene	21 U	23 U	22 U	22 U	22 U
Methacrylonitrile	21 U	23 U	22 U	22 U	22 U
Dibromomethane	11 U	11 U	11 U	11 U	11 U
Isobutyl alcohol	2100 U	2300 U	2200 U	2200 U	2200 U
1,2-Dibromoethane	21 U	23 U	22 U	22 U	22 U
1,1,1,2-Tetrachloroethane	11 U	11 U	11 U	11 U	11 U
1,2,3-Trichloropropane	11 U	11 U	11 U	11 U	11 U
trans-1,4-Dichloro-2-butene	21 U	23 U	22 U	22 U	22 U
1,2-Dibromo-3-chloropropane	21 U	23 U	22 U	22 U	22 U
2-Chloro-1,3-Butadiene	110 U	110 U	110 U	110 U	110 U
Methylmethacrylate	21 U	23 U	22 U	22 U	22 U
Ethylmethacrylate	21 U	23 U	22 U	22 U	22 U
Pentachloroethane	21 U	23 U	22 U	22 U	22 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
SEMIVOLATILES (ug/kg)					
Phenol	47 J	370 U	360 U	360 U	360 U
bis(2-Chloroethyl)ether	350 U	370 U	360 U	360 U	360 U
2-Chlorophenol	350 U	370 U	360 U	360 U	360 U
1,3-Dichlorobenzene	350 U	370 U	360 U	360 U	360 U
1,4-Dichlorobenzene	350 U	370 U	360 U	360 U	360 U
Benzyl alcohol	350 U	370 U	360 U	360 U	360 U
1,2-Dichlorobenzene	350 U	370 U	360 U	360 U	360 U
o-Cresol	350 U	370 U	360 U	360 U	360 U
2,2'-oxybis(1-Chloropropane)	350 U	370 U	360 U	360 U	360 U
meta & para-Cresol	350 U	370 U	360 U	360 U	360 U
N-Nitroso-di-n-propylamine	350 U	370 U	360 U	360 U	360 U
Hexachloroethane	350 U	370 U	360 U	360 U	360 U
Nitrobenzene	350 U	370 U	360 U	360 U	360 U
Isophorone	350 U	370 U	360 U	360 U	360 U
2-Nitrophenol	350 U	370 U	360 U	360 U	360 U
2,4-Dimethylphenol	350 U	370 U	360 U	360 U	360 U
Benzoic acid	1800 U	1800 U	1800 U	1800 U	1800 U
bis(2-Chloroethoxy)methane	350 U	370 U	360 U	360 U	360 U
2,4-Dichlorophenol	350 U	370 U	360 U	360 U	360 U
1,2,4-Trichlorobenzene	350 U	370 U	360 U	360 U	360 U
Naphthalene	350 U	370 U	360 U	360 U	360 U
4-Chloroaniline	350 U	370 U	360 U	360 U	360 U
Hexachlorobutadiene	350 U	370 U	360 U	360 U	360 U
4-Chloro-3-methylphenol	350 U	370 U	360 U	360 U	360 U
2-Methylnaphthalene	350 U	370 U	360 U	360 U	360 U
Hexachlorocyclopentadiene	350 U	370 U	360 U	360 U	360 U
2,4,6-Trichlorophenol	350 U	370 U	360 U	360 U	360 U
2,4,5-Trichlorophenol	1800 U	1800 U	1800 U	1800 U	1800 U
2-Chloronaphthalene	350 U	370 U	360 U	360 U	360 U
2-Nitroaniline	1800 U	1800 U	1800 U	1800 U	1800 U
Dimethylphthalate	350 U	370 U	360 U	360 U	360 U
Acenaphthylene	350 U	370 U	360 U	360 U	360 U
2,6-Dinitrotoluene	350 U	370 U	360 U	360 U	360 U
3-Nitroaniline	1800 U	1800 U	1800 U	1800 U	1800 U
Acenaphthene	350 U	370 U	360 U	360 U	140 J

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
SEMIVOLATILES (ug/kg) cont.					
2,4-Dinitrophenol	1800 U	1800 U	1800 U	1800 U	1800 U
4-Nitrophenol	1800 U	1800 U	1800 U	1800 U	1800 U
Dibenzofuran	350 U	370 U	360 U	360 U	37 J
2,4-Dinitrotoluene	350 U	370 U	360 U	360 U	360 U
Diethylphthalate	350 U	370 U	360 U	360 U	360 U
4-Chlorophenyl-phenylether	350 U	370 U	360 U	360 U	360 U
Fluorene	350 U	370 U	360 U	360 U	87 J
4-Nitroaniline	1800 U	1800 U	1800 U	1800 U	1800 U
4,6-Dinitro-2-methylphenol	1800 U	1800 U	1800 U	1800 U	1800 U
N-Nitrosodiphenylamine (1)	350 U	370 U	360 U	360 U	360 U
4-Bromophenyl-phenylether	350 U	370 U	360 U	360 U	360 U
Hexachlorobenzene	350 U	370 U	360 U	360 U	360 U
Pentachlorophenol	1800 U	1800 U	1800 U	1800 U	1800 U
Phenanthrene	350 U	370 U	360 U	360 U	800
Anthracene	350 U	370 U	360 U	360 U	190 J
Di-n-butylphthalate	190 JB	200 JB	200 JB	220 JB	240 JB
Fluoranthene	87 J	370 U	360 U	64 J	1300
Pyrene	120 J	370 U	360 U	83 J	1400
Butylbenzylphthalate	350 U	370 U	360 U	360 U	360 U
3,3'-Dichlorobenzidine	700 U	740 U	730 U	710 U	720 U
Benzo(a)anthracene	62 J	370 U	360 U	45 J	610
Chrysene	91 J	370 U	360 U	74 J	720
bis(2-Ethylhexyl)phthalate	350 U	370 U	360 U	360 U	360 U
Di-n-octyl phthalate	350 U	370 U	360 U	360 U	360 U
Benzo(b)fluoranthene	110 J	370 U	360 U	110 J	750
Benzo(k)fluoranthene	350 U	370 U	360 U	51 J	380
Benzo(a)pyrene	57 J	370 U	360 U	54 J	610
Indeno(1,2,3-cd)pyrene	45 J	370 U	360 U	360 U	380
Dibenzo(a,h)anthracene	350 U	370 U	360 U	360 U	94 J
Benzo(g,h,i)perylene	47 J	370 U	360 U	360 U	350 J
1,4-Dioxane	1400 U	1500 U	1500 U	1400 U	1400 J
Pyridine	700 U	740 U	730 U	710 U	720 U
N-Nitrosodimethylamine	350 U	370 U	360 U	360 U	360 U
2-Picoline	350 U	370 U	360 U	360 U	360 U
N-Nitrosomethylethylamine	350 U	370 U	360 U	360 U	360 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
SEMIVOLATILES (ug/kg) cont.					
Methyl methanesulfonate	350 U	370 U	360 U	360 U	360 U
N-Nitrosodiethylamine	350 U	370 U	360 U	360 U	360 U
Ethyl methanesulfonate	350 U	370 U	360 U	360 U	360 U
Aniline	1800 U	1800 U	1800 U	1800 U	1800 U
N-Nitrosopyrrolidine	1800 U	1800 U	1800 U	1800 U	1800 U
Acetophenone	350 U	370 U	360 U	360 U	360 U
N-Nitrosomorpholine	700 U	740 U	730 U	710 U	720 U
o-Toluidine	350 U	370 U	360 U	360 U	360 U
N-Nitrosopiperidine	350 U	370 U	360 U	360 U	360 U
a,a-Dimethylphenethylamine	1800 U	1800 U	1800 U	1800 U	1800 U
2,6-Dichlorophenol	350 U	370 U	360 U	360 U	360 U
Hexachloropropene	700 U	740 U	730 U	710 U	720 U
p-Phenylenediamine	700 U	740 U	730 U	710 U	720 U
N-Nitroso-di-n-butylamine	350 U	370 U	360 U	360 U	360 U
Safrole	350 U	370 U	360 U	360 U	360 U
1,2,4,5-Tetrachlorobenzene	350 U	370 U	360 U	360 U	360 U
Isosafrole	350 U	370 U	360 U	360 U	360 U
1,4-Naphthoquinone	1800 U	1800 U	1800 U	1800 U	1800 U
1,3-Dinitrobenzene	700 U	740 U	730 U	710 U	720 U
Pentachlorobenzene	350 U	370 U	360 U	360 U	360 U
1-Naphthylamine	350 U	370 U	360 U	360 U	360 U
2-Naphthylamine	350 U	370 U	360 U	360 U	360 U
2,3,4,6-Tetrachlorophenol	350 U	370 U	360 U	360 U	360 U
1,3,5-Trinitrobenzene	3500 U	3700 U	3600 U	3600 U	3600 U
Diallate	350 U	370 U	360 U	360 U	360 U
Phenacetin	350 U	370 U	360 U	360 U	360 U
Diphenylamine	350 U	370 U	360 U	360 U	360 U
5-Nitro-o-toluidine	700 U	740 U	730 U	710 U	720 U
4-Aminobiphenyl	350 U	370 U	360 U	360 U	360 U
Pronamide	350 U	370 U	360 U	360 U	360 U
2-sec-Butyl-4,6-dinitrophenol	700 U	740 U	730 U	710 U	720 U
Pentachloronitrobenzene	350 U	370 U	360 U	360 U	360 U
4-Nitroquinoline-1-oxide	1800 U	1800 U	1800 U	1800 U	1800 U
Methapyrilene	880 U	920 U	910 U	890 U	900 U
Aramite	700 U	740 U	730 U	710 U	720 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
SEMIVOLATILES (ug/kg) cont.					
Chlorobenzilate	350 U	370 U	360 U	360 U	360 U
p-Dimethylaminoazobenzene	700 U	740 U	730 U	710 U	720 U
3,3'-Dimethylbenzidine	700 U	740 U	730 U	710 U	720 U
2-Acetylaminofluorene	700 U	740 U	730 U	710 U	720 U
7,12-Dimethylbenz(a)anthracene	700 U	740 U	730 U	710 U	720 U
Hexachlorophene	3500 U	3700 U	3600 U	3600 U	3600 U
3-Methylcholanthrene	350 U	370 U	360 U	360 U	360 U
EPA METHOD 8141 (ug/kg)					
o,o,o-Triethyl phosphorothioate	28 U	30 U	29 U	28 U	28 U
Thionazin	28 U	30 U	29 U	28 U	28 U
Sulfotep	28 U	30 U	29 U	28 U	28 U
Phorate	63 U	67 U	65 U	64 U	64 U
Dimethoate	100 U	110 U	100 U	100 U	100 U
Disulfoton	70 U	75 U	72 U	71 U	71 U
Methyl parathion	70 U	75 U	72 U	71 U	71 U
Ethyl Parathion	70 U	75 U	72 U	71 U	71 U
Famphur	70 U	75 U	72 U	71 U	71 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
PESTICIDE/PCBS (ug/kg)					
alpha-BHC	21 U	4.5 U	4.4 U	21 U	43 U
beta-BHC	21 U	4.5 U	4.4 U	21 U	43 U
delta-BHC	21 U	4.5 U	4.4 U	21 U	43 U
gamma-BHC (Lindane)	21 U	4.5 U	4.4 U	21 U	43 U
Heptachlor	21 U	4.5 U	4.4 U	21 U	43 U
Aldrin	21 U	4.5 U	4.4 U	21 U	43 U
Heptachlor epoxide	21 U	4.5 U	4.4 U	21 U	43 U
Endosulfan I	21 U	4.5 U	4.4 U	21 U	43 U
Dieldrin	42 U	9.1 U	8.8 U	42 U	86 U
4,4'-DDE	42 U	9.1 U	8.8 U	42 U	86 U
Endrin	42 U	9.1 U	8.8 U	42 U	86 U
Endosulfan II	42 U	9.1 U	8.8 U	42 U	86 U
4,4'-DDD	42 U	9.1 U	8.8 U	42 U	86 U
Endosulfan sulfate	42 U	9.1 U	8.8 U	42 U	86 U
4,4'-DDT	42 U	9.1 U	8.8 U	42 U	86 U
Methoxychlor	210 U	45 U	44 U	210 U	430 U
Endrin aldehyde	42 U	9.1 U	8.8 U	42 U	86 U
Isodrin	21 U	4.5 U	4.4 U	21 U	43 U
Kepone	42 U	9.1 U	8.8 U	42 U	86 U
alpha-Chlordane	210 U	45 U	44 U	210 U	430 U
gamma-Chlordane	210 U	45 U	44 U	210 U	430 U
Toxaphene	420 U	91 U	88 U	420 U	860 U
Aroclor-1016	210 U	45 U	44 U	210 U	430 U
Aroclor-1221	210 U	45 U	44 U	210 U	430 U
Aroclor-1232	210 U	45 U	44 U	210 U	430 U
Aroclor-1242	210 U	45 U	44 U	210 U	430 U
Aroclor-1248	210 U	45 U	44 U	210 U	430 U
Aroclor-1254	420 U	91 U	88 U	420 U	860 U
Aroclor-1260	420 U	91 U	88 U	420 U	860 U
HERBICIDES (ug/kg)					
2,4-D	350 U	370 U	360 U	360 U	360 U
2,4,5-TP (Silvex)	70 U	75 U	73 U	71 U	71 U
2,4,5-T	70 U	75 U	73 U	71 U	71 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
PCDD/PCDF (ug/kg)					
2378-TCDD	0.16 U	0.06 U	0.10 U	0.11 U	0.11 U
Total TCDD	0.16 U	0.10 U	0.10 U	0.12 U	0.11 U
Total PECDD	0.15 U	0.14 U	0.10 U	0.13 U	0.14 U
Total HXCDD	0.22 U	0.12 U	0.14 U	0.15 U	0.14 U
Total TCDF	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U
Total PECDF	0.11 U	0.10 U	0.07 U	0.12 U	0.11 U
Total HXCDF	0.19 U	0.09 U	0.14 U	0.16 U	0.08 U
TPH (ug/kg)					
Gasoline	NA	NA	33 U	33 U	33 U
Diesel Fuel	NA	NA	4.5 U	4.4 U	44 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	6SB01	6SB02	AOCBSB01-01	AOCBSB02	AOCBSB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL
% Solids	94.6	87.7	90.2	93.0	92.3
TOTAL ANALYTES (mg/kg)					
Silver	0.18 U	0.27 U	0.25 U	0.24 U	0.24 U
Arsenic	1.1 U	1.4	1.4	0.46	2.0
Barium	80.2	33.6	98.8	81.1	52.8
Beryllium	0.11 U	0.16 U	0.14 U	0.14 U	0.14 U
Cadmium	0.56	0.30	0.69	1.0	0.51
Cobalt	14.3	9.0	12.3	13.6	15.0
Chromium	15.0	7.9	9.9	15.5	19.5
Copper	124	22.7	80.3	96.4	94.0
Mercury	2.2	0.084 U	0.11 U	0.14	0.077 U
Nickel	43.6	17.3	34.1	83.6	54.5
Lead	32.6	1.3	72.0	11.5	13.8
Antimony	1.3 U	1.9 U	1.7 U	1.7 U	1.7 U
Selenium	0.47 U	0.14 U	0.77 U	0.14 U	0.13 U
Tin	1.5	2.8	1.7 U	1.7 U	1.6 U
Thallium	0.094 U	0.14 U	0.15 U	0.14 U	0.67 U
Vanadium	89.5	43.1	76.6	79.2	82.9
Zinc	75.6	36.7	93.5	76.1	59.6
Cyanide	0.47 U	0.50 U	0.43 U	0.40 U	0.42 U
Sulfide	26.4 U	28.2 U	27.2 U	24.0 U	27.1 U

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg)						
Chloromethane	11 U	11 U	ND	ND		0/5
Bromomethane	11 U	11 U	ND	ND		0/5
Vinyl chloride	11 U	11 U	ND	ND		0/5
Chloroethane	11 U	11 U	ND	ND		0/5
Methylene Chloride	5 U	6 U	ND	ND		0/5
Acetone	11 U	11 U	14	14	6SB01	1/5
Carbon Disulfide	5 U	6 U	ND	ND		0/5
1,1-Dichloroethene	5 U	6 U	ND	ND		0/5
1,1-Dichloroethane	5 U	6 U	ND	ND		0/5
1,2-Dichloroethene (total)	5 U	6 U	ND	ND		0/5
Chloroform	5 U	6 U	ND	ND		0/5
1,2-Dichloroethane	5 U	6 U	ND	ND		0/5
2-Butanone	11 U	11 U	ND	ND		0/5
1,1,1-Trichloroethane	5 U	6 U	ND	ND		0/5
Carbon Tetrachloride	5 U	6 U	ND	ND		0/5
Vinyl acetate	11 U	11 U	ND	ND		0/5
Bromodichloromethane	5 U	6 U	ND	ND		0/5
1,2-Dichloropropane	5 U	6 U	ND	ND		0/5
cis-1,3-Dichloropropene	5 U	6 U	ND	ND		0/5
Trichloroethene	5 U	6 U	ND	ND		0/5
Dibromochloromethane	5 U	6 U	ND	ND		0/5
1,1,2-Trichloroethane	5 U	6 U	ND	ND		0/5
Benzene	5 U	6 U	ND	ND		0/5
trans-1,3-Dichloropropene	5 U	6 U	ND	ND		0/5
Bromoform	5 U	6 U	ND	ND		0/5
4-Methyl-2-pentanone	11 U	11 U	ND	ND		0/5
2-Hexanone	11 U	11 U	ND	ND		0/5
Tetrachloroethene	5 U	6 U	ND	ND		0/5
1,1,2,2-Tetrachloroethane	5 U	6 U	ND	ND		0/5
Toluene	5 U	6 U	ND	ND		0/5
Chlorobenzene	5 U	6 U	ND	ND		0/5
Ethylbenzene	5 U	6 U	ND	ND		0/5
Styrene	5 U	6 U	ND	ND		0/5
Xylene (total)	5 U	6 U	ND	ND		0/5
Acrolein	530 U	570 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg) cont.						
Acrylonitrile	110 U	110 U	ND	ND		0/5
Trichlorofluoromethane	11 U	11 U	ND	ND		0/5
Dichlorodifluoromethane	21 U	23 U	ND	ND		0/5
Acetonitrile	110 U	110 U	ND	ND		0/5
Iodomethane	11 U	11 U	ND	ND		0/5
Propionitrile (Ethyl Cyanide)	53 U	57 U	ND	ND		0/5
3-Chloropropene	21 U	23 U	ND	ND		0/5
Methacrylonitrile	21 U	23 U	ND	ND		0/5
Dibromomethane	11 U	11 U	ND	ND		0/5
Isobutyl alcohol	2100 U	2300 U	ND	ND		0/5
1,2-Dibromoethane	21 U	23 U	ND	ND		0/5
1,1,1,2-Tetrachloroethane	11 U	11 U	ND	ND		0/5
1,2,3-Trichloropropane	11 U	11 U	ND	ND		0/5
trans-1,4-Dichloro-2-butene	21 U	23 U	ND	ND		0/5
1,2-Dibromo-3-chloropropane	21 U	23 U	ND	ND		0/5
2-Chloro-1,3-Butadiene	110 U	110 U	ND	ND		0/5
Methylmethacrylate	21 U	23 U	ND	ND		0/5
Ethylmethacrylate	21 U	23 U	ND	ND		0/5
Pentachloroethane	21 U	23 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg)						
Phenol	360 U	370 U	47 J	47 J	6SB01	1/5
bis(2-Chloroethyl)ether	350 U	370 U	ND	ND		0/5
2-Chlorophenol	350 U	370 U	ND	ND		0/5
1,3-Dichlorobenzene	350 U	370 U	ND	ND		0/5
1,4-Dichlorobenzene	350 U	370 U	ND	ND		0/5
Benzyl alcohol	350 U	370 U	ND	ND		0/5
1,2-Dichlorobenzene	350 U	370 U	ND	ND		0/5
o-Cresol	350 U	370 U	ND	ND		0/5
2,2'-oxybis(1-Chloropropane)	350 U	370 U	ND	ND		0/5
meta & para-Cresol	350 U	370 U	ND	ND		0/5
N-Nitroso-di-n-propylamine	350 U	370 U	ND	ND		0/5
Hexachloroethane	350 U	370 U	ND	ND		0/5
Nitrobenzene	350 U	370 U	ND	ND		0/5
Isophorone	350 U	370 U	ND	ND		0/5
2-Nitrophenol	350 U	370 U	ND	ND		0/5
2,4-Dimethylphenol	350 U	370 U	ND	ND		0/5
Benzoic acid	1800 U	1800 U	ND	ND		0/5
bis(2-Chloroethoxy)methane	350 U	370 U	ND	ND		0/5
2,4-Dichlorophenol	350 U	370 U	ND	ND		0/5
1,2,4-Trichlorobenzene	350 U	370 U	ND	ND		0/5
Naphthalene	350 U	370 U	ND	ND		0/5
4-Chloroaniline	350 U	370 U	ND	ND		0/5
Hexachlorobutadiene	350 U	370 U	ND	ND		0/5
4-Chloro-3-methylphenol	350 U	370 U	ND	ND		0/5
2-Methylnaphthalene	350 U	370 U	ND	ND		0/5
Hexachlorocyclopentadiene	350 U	370 U	ND	ND		0/5
2,4,6-Trichlorophenol	350 U	370 U	ND	ND		0/5
2,4,5-Trichlorophenol	1800 U	1800 U	ND	ND		0/5
2-Chloronaphthalene	350 U	370 U	ND	ND		0/5
2-Nitroaniline	1800 U	1800 U	ND	ND		0/5
Dimethylphthalate	350 U	370 U	ND	ND		0/5
Acenaphthylene	350 U	370 U	ND	ND		0/5
2,6-Dinitrotoluene	350 U	370 U	ND	ND		0/5
3-Nitroaniline	1800 U	1800 U	ND	ND		0/5
Acenaphthene	350 U	370 U	140 J	140 J	AOCBSB03	1/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
2,4-Dinitrophenol	1800 U	1800 U	ND	ND		0/5
4-Nitrophenol	1800 U	1800 U	ND	ND		0/5
Dibenzofuran	350 U	370 U	37 J	37 J	AOCBSB03	1/5
2,4-Dinitrotoluene	350 U	370 U	ND	ND		0/5
Diethylphthalate	350 U	370 U	ND	ND		0/5
4-Chlorophenyl-phenylether	350 U	370 U	ND	ND		0/5
Fluorene	350 U	370 U	87 J	87 J	AOCBSB03	1/5
4-Nitroaniline	1800 U	1800 U	ND	ND		0/5
4,6-Dinitro-2-methylphenol	1800 U	1800 U	ND	ND		0/5
N-Nitrosodiphenylamine (1)	350 U	370 U	ND	ND		0/5
4-Bromophenyl-phenylether	350 U	370 U	ND	ND		0/5
Hexachlorobenzene	350 U	370 U	ND	ND		0/5
Pentachlorophenol	1800 U	1800 U	ND	ND		0/5
Phenanthrene	350 U	370 U	800	800	AOCBSB03	1/5
Anthracene	350 U	370 U	190 J	190 J	AOCBSB03	1/5
Di-n-butylphthalate	190 JB	240 JB	ND	ND		0/5
Fluoranthene	360 U	370 U	64 J	1300	AOCBSB03	3/5
Pyrene	360 U	370 U	83 J	1400	AOCBSB03	3/5
Butylbenzylphthalate	350 U	370 U	ND	ND		0/5
3,3'-Dichlorobenzidine	700 U	740 U	ND	ND		0/5
Benzo(a)anthracene	360 U	370 U	45 J	610	AOCBSB03	3/5
Chrysene	360 U	370 U	74 J	720	AOCBSB03	3/5
bis(2-Ethylhexyl)phthalate	350 U	370 U	ND	ND		0/5
Di-n-octyl phthalate	350 U	370 U	ND	ND		0/5
Benzo(b)fluoranthene	360 U	370 U	110 J	750	AOCBSB03	3/5
Benzo(k)fluoranthene	350 U	370 U	51 J	380	AOCBSB03	2/5
Benzo(a)pyrene	360 U	370 U	54 J	610	AOCBSB03	3/5
Indeno(1,2,3-cd)pyrene	360 U	370 U	45 J	380	AOCBSB03	2/5
Dibenzo(a,h)anthracene	350 U	370 U	94 J	94 J	AOCBSB03	1/5
Benzo(g,h,i)perylene	360 U	370 U	47 J	350 J	AOCBSB03	2/5
1,4-Dioxane	1400 U	1500 U	1400 J	1400 J	AOCBSB03	1/5
Pyridine	700 U	740 U	ND	ND		0/5
N-Nitrosodimethylamine	350 U	370 U	ND	ND		0/5
2-Picoline	350 U	370 U	ND	ND		0/5
N-Nitrosomethylethylamine	350 U	370 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
Methyl methanesulfonate	350 U	370 U	ND	ND		0/5
N-Nitrosodiethylamine	350 U	370 U	ND	ND		0/5
Ethyl methanesulfonate	350 U	370 U	ND	ND		0/5
Aniline	1800 U	1800 U	ND	ND		0/5
N-Nitrosopyrrolidine	1800 U	1800 U	ND	ND		0/5
Acetophenone	350 U	370 U	ND	ND		0/5
N-Nitrosomorpholine	700 U	740 U	ND	ND		0/5
o-Toluidine	350 U	370 U	ND	ND		0/5
N-Nitrosopiperidine	350 U	370 U	ND	ND		0/5
a,a-Dimethylphenethylamine	1800 U	1800 U	ND	ND		0/5
2,6-Dichlorophenol	350 U	370 U	ND	ND		0/5
Hexachloropropene	700 U	740 U	ND	ND		0/5
p-Phenylenediamine	700 U	740 U	ND	ND		0/5
N-Nitroso-di-n-butylamine	350 U	370 U	ND	ND		0/5
Safrole	350 U	370 U	ND	ND		0/5
1,2,4,5-Tetrachlorobenzene	350 U	370 U	ND	ND		0/5
Isosafrole	350 U	370 U	ND	ND		0/5
1,4-Naphthoquinone	1800 U	1800 U	ND	ND		0/5
1,3-Dinitrobenzene	700 U	740 U	ND	ND		0/5
Pentachlorobenzene	350 U	370 U	ND	ND		0/5
1-Naphthylamine	350 U	370 U	ND	ND		0/5
2-Naphthylamine	350 U	370 U	ND	ND		0/5
2,3,4,6-Tetrachlorophenol	350 U	370 U	ND	ND		0/5
1,3,5-Trinitrobenzene	3500 U	3700 U	ND	ND		0/5
Diallate	350 U	370 U	ND	ND		0/5
Phenacetin	350 U	370 U	ND	ND		0/5
Diphenylamine	350 U	370 U	ND	ND		0/5
5-Nitro-o-toluidine	700 U	740 U	ND	ND		0/5
4-Aminobiphenyl	350 U	370 U	ND	ND		0/5
Pronamide	350 U	370 U	ND	ND		0/5
2-sec-Butyl-4,6-dinitrophenol	700 U	740 U	ND	ND		0/5
Pentachloronitrobenzene	350 U	370 U	ND	ND		0/5
4-Nitroquinoline-1-oxide	1800 U	1800 U	ND	ND		0/5
Methapyrilene	880 U	920 U	ND	ND		0/5
Aramite	700 U	740 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/kg) cont.						
Chlorobenzilate	350 U	370 U	ND	ND		0/5
p-Dimethylaminoazobenzene	700 U	740 U	ND	ND		0/5
3,3'-Dimethylbenzidine	700 U	740 U	ND	ND		0/5
2-Acetylaminofluorene	700 U	740 U	ND	ND		0/5
7,12-Dimethylbenz(a)anthracene	700 U	740 U	ND	ND		0/5
Hexachlorophene	3500 U	3700 U	ND	ND		0/5
3-Methylcholanthrene	350 U	370 U	ND	ND		0/5
EPA METHOD 8141 (ug/kg)						
o,o,o-Triethyl phosphorothioate	28 U	30 U	ND	ND		0/5
Thionazin	28 U	30 U	ND	ND		0/5
Sulfotep	28 U	30 U	ND	ND		0/5
Phorate	63 U	67 U	ND	ND		0/5
Dimethoate	100 U	110 U	ND	ND		0/5
Disulfoton	70 U	75 U	ND	ND		0/5
Methyl parathion	70 U	75 U	ND	ND		0/5
Ethyl Parathion	70 U	75 U	ND	ND		0/5
Famphur	70 U	75 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBS (ug/kg)						
alpha-BHC	4.4 U	43 U	ND	ND		0/5
beta-BHC	4.4 U	43 U	ND	ND		0/5
delta-BHC	4.4 U	43 U	ND	ND		0/5
gamma-BHC (Lindane)	4.4 U	43 U	ND	ND		0/5
Heptachlor	4.4 U	43 U	ND	ND		0/5
Aldrin	4.4 U	43 U	ND	ND		0/5
Heptachlor epoxide	4.4 U	43 U	ND	ND		0/5
Endosulfan I	4.4 U	43 U	ND	ND		0/5
Dieldrin	8.8 U	86 U	ND	ND		0/5
4,4'-DDE	8.8 U	86 U	ND	ND		0/5
Endrin	8.8 U	86 U	ND	ND		0/5
Endosulfan II	8.8 U	86 U	ND	ND		0/5
4,4'-DDD	8.8 U	86 U	ND	ND		0/5
Endosulfan sulfate	8.8 U	86 U	ND	ND		0/5
4,4'-DDT	8.8 U	86 U	ND	ND		0/5
Methoxychlor	44 U	430 U	ND	ND		0/5
Endrin aldehyde	8.8 U	86 U	ND	ND		0/5
Isodrin	4.4 U	43 U	ND	ND		0/5
Kepone	8.8 U	86 U	ND	ND		0/5
alpha-Chlordane	44 U	430 U	ND	ND		0/5
gamma-Chlordane	44 U	430 U	ND	ND		0/5
Toxaphene	88 U	860 U	ND	ND		0/5
Aroclor-1016	44 U	430 U	ND	ND		0/5
Aroclor-1221	44 U	430 U	ND	ND		0/5
Aroclor-1232	44 U	430 U	ND	ND		0/5
Aroclor-1242	44 U	430 U	ND	ND		0/5
Aroclor-1248	44 U	430 U	ND	ND		0/5
Aroclor-1254	88 U	860 U	ND	ND		0/5
Aroclor-1260	88 U	860 U	ND	ND		0/5
HERBICIDES (ug/kg)						
2,4-D	350 U	370 U	ND	ND		0/5
2,4,5-TP (Silvex)	70 U	75 U	ND	ND		0/5
2,4,5-T	70 U	75 U	ND	ND		0/5

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PCDD/PCDF (ug/kg)						
2378-TCDD	0.06 U	0.16 U	ND	ND		0/5
Total TCDD	0.1 U	0.16 U	ND	ND		0/5
Total PECDD	0.1 U	0.15 U	ND	ND		0/5
Total HXCDD	0.12 U	0.22 U	ND	ND		0/5
Total TCDF	0.06 U	0.07 U	ND	ND		0/5
Total PECDF	0.07 U	0.12 U	ND	ND		0/5
Total HXCDF	0.08 U	0.19 U	ND	ND		0/5
TPH (ug/kg)						
Gasoline	33 U	33 U	ND	ND		0/3
Diesel Fuel	4.4 U	44 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
SUBSURFACE SOIL
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX % Solids	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
TOTAL ANALYTES (mg/kg)						
Silver	0.18 U	0.27 U	ND	ND		0/5
Arsenic	1.1 U	1.1 U	0.46	2	AOCBSB03	4/5
Barium	NA	NA	33.6	98.8	AOCBSB01-01	5/5
Beryllium	0.11 U	0.16 U	ND	ND		0/5
Cadmium	NA	NA	0.3	1	AOCBSB02	5/5
Cobalt	NA	NA	9	15	AOCBSB03	5/5
Chromium	NA	NA	7.9	19.5	AOCBSB03	5/5
Copper	NA	NA	22.7	124	6SB01	5/5
Mercury	0.077 U	0.11 U	0.14	2.2	6SB01	2/5
Nickel	NA	NA	17.3	83.6	AOCBSB02	5/5
Lead	NA	NA	1.3	72	AOCBSB01-01	5/5
Antimony	1.3 U	1.9 U	ND	ND		0/5
Selenium	0.13 U	0.77 U	ND	ND		0/5
Tin	1.6 U	1.7 U	1.5	2.8	6SB02	2/5
Thallium	0.094 U	0.67 U	ND	ND		0/5
Vanadium	NA	NA	43.1	89.5	6SB01	5/5
Zinc	NA	NA	36.7	93.5	AOCBSB01-01	5/5
Cyanide	0.4 U	0.5 U	ND	ND		0/5
Sulfide	24 U	28.2 U	ND	ND		0/5

APPENDIX A-2.5
SITES 11 AND 17 - GROUNDWATER

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
VOLATILES (ug/L)			
Chloromethane	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U
Vinyl chloride	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U
Acetone	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U
Vinyl acetate	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U
Benzene	5 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U
Toluene	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U
Styrene	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
VOLATILES (ug/L) cont.			
Acrolein	500 U	500 U	500 U
Acrylonitrile	100 U	100 U	100 U
Trichlorofluoromethane	10 U	10 U	10 U
Dichlorodifluoromethane	20 U	20 U	20 U
Acetonitrile	100 U	100 U	100 U
Iodomethane	10 U	10 U	10 U
Propionitrile (Ethyl Cyanide)	50 U	50 U	50 U
3-Chloropropene	20 U	20 U	20 U
Methacrylonitrile	20 U	20 U	20 U
Dibromomethane	10 U	10 U	10 U
Isobutyl alcohol	2000 U	2000 U	2000 U
1,2-Dibromoethane	20 U	20 U	20 U
1,1,1,2-Tetrachloroethane	10 U	10 U	10 U
1,2,3-Trichloropropane	10 U	10 U	10 U
trans-1,4-Dichloro-2-butene	20 U	20 U	20 U
1,2-Dibromo-3-chloropropane	20 U	20 U	20 U
2-Chloro-1,3-Butadiene	100 U	100 U	100 U
Methylmethacrylate	20 U	20 U	20 U
Ethylmethacrylate	20 U	20 U	20 U
Pentachloroethane	20 U	20 U	20 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
SEMIVOLATILES (ug/L)			
Phenol	10 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U
Benzyl alcohol	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U
o-Cresol	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	10 U	10 U	10 U
meta & para-Cresol	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U
Benzoic acid	50 U	50 U	50 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U
2-Chloronaphthalene	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U
Dimethylphthalate	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U
3-Nitroaniline	50 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
SEMIVOLATILES (ug/L) cont.			
2,4-Dinitrophenol	50 U	50 U	50 U
4-Nitrophenol	50 U	50 U	50 U
Dibenzofuran	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U
4-Nitroaniline	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol	50 U	50 U	50 U
N-Nitrosodiphenylamine (1)	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U
Pentachlorophenol	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U
Benzo(a)anthracene	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	1 J	3 J
Di-n-octyl phthalate	10 U	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U
1,4-Dioxane	20 U	20 U	20 U
Pyridine	20 U	20 U	20 U
N-Nitrosodimethylamine	10 U	10 U	10 U
2-Picoline	10 U	10 U	10 U
N-Nitrosomethylethylamine	10 U	10 U	10 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
SEMIVOLATILES (ug/L) cont.			
Methyl methanesulfonate	10 U	10 U	10 U
N-Nitrosodiethylamine	10 U	10 U	10 U
Ethyl methanesulfonate	10 U	10 U	10 U
Aniline	50 U	50 U	50 U
N-Nitrosopyrrolidine	50 U	50 U	50 U
Acetophenone	10 U	10 U	10 U
N-Nitrosomorpholine	20 U	20 U	20 U
o-Toluidine	10 U	10 U	10 U
N-Nitrosopiperidine	10 U	10 U	10 U
a,a-Dimethylphenethylamine	50 U	50 U	50 U
2,6-Dichlorophenol	10 U	10 U	10 U
Hexachloropropene	20 U	20 U	20 U
p-Phenylenediamine	20 U	20 U	20 U
N-Nitroso-di-n-butylamine	10 U	10 U	10 U
Safrole	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene	10 U	10 U	10 U
Isosafrole	10 U	10 U	10 U
1,4-Naphthoquinone	50 U	50 U	50 U
1,3-Dinitrobenzene	20 U	20 U	20 U
Pentachlorobenzene	10 U	10 U	10 U
1-Naphthylamine	10 U	10 U	10 U
2-Naphthylamine	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	10 U	10 U	10 U
1,3,5-Trinitrobenzene	100 U	100 U	100 U
Diallate	10 U	10 U	10 U
Phenacetin	10 U	10 U	10 U
Diphenylamine	10 U	10 U	10 U
5-Nitro-o-toluidine	20 U	20 U	20 U
4-Aminobiphenyl	10 U	10 U	10 U
Pronamide	10 U	10 U	10 U
2-sec-Butyl-4,6-dinitrophenol	20 U	20 U	20 U
Pentachloronitrobenzene	10 U	10 U	10 U
4-Nitroquinoline-1-oxide	50 U	50 U	50 U
Methapyrilene	25 U	25 U	25 U
Aramite	20 U	20 U	20 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
SEMIVOLATILES (ug/L) cont.			
Chlorobenzilate	10 U	10 U	10 U
p-Dimethylaminoazobenzene	20 U	20 U	20 U
3,3'-Dimethylbenzidine	20 U	20 U	20 U
2-Acetylaminofluorene	20 U	20 U	20 U
7,12-Dimethylbenz(a)anthracene	20 U	20 U	20 U
Hexachlorophene	100 U	100 U	100 U
3-Methylcholanthrene	10 U	10 U	10 U
EPA METHOD 8141 (ug/L)			
o,o,o-Triethyl phosphorothioate	0.82 U	0.85 U	0.86 U
Thionazin	0.82 U	0.85 U	0.86 U
Sulfotep	0.82 U	0.85 U	0.86 U
Phorate	1.8 U	1.9 U	1.9 U
Dimethoate	3.0 U	3.1 U	3.1 U
Disulfoton	2.0 U	2.1 U	2.2 U
Methyl parathion	2.0 U	2.1 U	2.2 U
Ethyl Parathion	2.0 U	2.1 U	2.2 U
Famphur	2.0 U	2.1 U	2.2 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
PESTICIDE/PCBS (ug/L)			
alpha-BHC	0.050 U	0.050 U	0.050 U
beta-BHC	0.050 U	0.050 U	0.050 U
delta-BHC	0.050 U	0.050 U	0.050 U
gamma-BHC (Lindane)	0.050 U	0.050 U	0.050 U
Heptachlor	0.050 U	0.050 U	0.050 U
Aldrin	0.050 U	0.050 U	0.050 U
Heptachlor epoxide	0.050 U	0.050 U	0.050 U
Endosulfan I	0.050 U	0.050 U	0.050 U
Dieldrin	0.10 U	0.10 U	0.10 U
4,4'-DDE	0.10 U	0.10 U	0.10 U
Endrin	0.10 U	0.10 U	0.10 U
Endosulfan II	0.10 U	0.10 U	0.10 U
4,4'-DDD	0.10 U	0.10 U	0.10 U
Endosulfan sulfate	0.10 U	0.10 U	0.10 U
4,4'-DDT	0.10 U	0.10 U	0.10 U
Methoxychlor	0.50 U	0.50 U	0.50 U
Endrin aldehyde	0.10 U	0.10 U	0.10 U
Isodrin	0.050 U	0.050 U	0.050 U
Kepone	0.10 U	0.10 U	0.10 U
alpha-Chlordane	0.50 U	0.50 U	0.50 U
gamma-Chlordane	0.50 U	0.50 U	0.50 U
Toxaphene	1.0 U	1.0 U	1.0 U
Aroclor-1016	0.50 U	0.50 U	0.50 U
Aroclor-1221	0.50 U	0.50 U	0.50 U
Aroclor-1232	0.50 U	0.50 U	0.50 U
Aroclor-1242	0.50 U	0.50 U	0.50 U
Aroclor-1248	0.50 U	0.50 U	0.50 U
Aroclor-1254	1.0 U	1.0 U	1.0 U
Aroclor-1260	1.0 U	1.0 U	1.0 U
HERBICIDES (ug/L)			
2,4-D	1.1 U	1.1 U	1.2 U
2,4,5-TP (Silvex)	0.23 U	0.22 U	0.23 U
2,4,5-T	0.23 U	0.22 U	0.23 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
PCDD/PCDF (ug/L)			
2378-TCDD	0.0012 U	0.0015 U	0.0011 U
Total TCDD	0.0012 U	0.0015 U	0.0013 U
Total PECDD	0.0012 U	0.0014 U	0.0014 U
Total HXCDD	0.0019 U	0.0013 U	0.0015 U
Total TCDF	0.00078 U	0.0010 U	0.00076 U
Total PECDF	0.0011 U	0.00094 U	0.0011 U
Total HXCDF	0.0013 U	0.0017 U	0.0011 U
TPH (ug/L)			
Gasoline	30 U	30 U	30 U
Diesel Fuel	0.13 U	0.14 U	0.16 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID	AOCBHP01	AOCBHP02	AOCBHP03
MATRIX	WATER	WATER	WATER
ANALYTES (ug/L)			
Silver	2.6 U	2.6 U	2.6 U
Arsenic	1.8 U	1.8 U	1.8 U
Barium	16.7	71.4	7.3
Beryllium	1.5 U	1.5 U	1.5 U
Cadmium	2.8 U	2.8 U	2.8 U
Cobalt	2.2 U	4.6	2.2 U
Chromium	2.4 U	4.0	4.9
Copper	9.6	54.4	4.1
Mercury	0.20 U	0.20 U	0.20 U
Nickel	11.6 U	11.6 U	11.6 U
Lead	7.7	10.4	2.4
Antimony	18.0 U	18.0 U	18.0 U
Selenium	1.6 U	1.6 U	3.5
Tin	17.8 U	17.8 U	17.8 U
Thallium	1.6 U	1.6 U	1.6 U
Vanadium	10.2	29.4	42.3
Zinc	6.3	21.9	5.2
Cyanide	10 U	10 U	10 U
GENERAL CHEMISTRY (mg/L)			
Sulfide	1.0 U	1.0 U	1.0 U

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/L)						
Chloromethane	10 U	10 U	ND	ND		0/3
Bromomethane	10 U	10 U	ND	ND		0/3
Vinyl chloride	10 U	10 U	ND	ND		0/3
Chloroethane	10 U	10 U	ND	ND		0/3
Methylene Chloride	5 U	5 U	ND	ND		0/3
Acetone	10 U	10 U	ND	ND		0/3
Carbon Disulfide	5 U	5 U	ND	ND		0/3
1,1-Dichloroethene	5 U	5 U	ND	ND		0/3
1,1-Dichloroethane	5 U	5 U	ND	ND		0/3
1,2-Dichloroethene (total)	5 U	5 U	ND	ND		0/3
Chloroform	5 U	5 U	ND	ND		0/3
1,2-Dichloroethane	5 U	5 U	ND	ND		0/3
2-Butanone	10 U	10 U	ND	ND		0/3
1,1,1-Trichloroethane	5 U	5 U	ND	ND		0/3
Carbon Tetrachloride	5 U	5 U	ND	ND		0/3
Vinyl acetate	10 U	10 U	ND	ND		0/3
Bromodichloromethane	5 U	5 U	ND	ND		0/3
1,2-Dichloropropane	5 U	5 U	ND	ND		0/3
cis-1,3-Dichloropropene	5 U	5 U	ND	ND		0/3
Trichloroethene	5 U	5 U	ND	ND		0/3
Dibromochloromethane	5 U	5 U	ND	ND		0/3
1,1,2-Trichloroethane	5 U	5 U	ND	ND		0/3
Benzene	5 U	5 U	ND	ND		0/3
trans-1,3-Dichloropropene	5 U	5 U	ND	ND		0/3
Bromoform	5 U	5 U	ND	ND		0/3
4-Methyl-2-pentanone	10 U	10 U	ND	ND		0/3
2-Hexanone	10 U	10 U	ND	ND		0/3
Tetrachloroethene	5 U	5 U	ND	ND		0/3
1,1,2,2-Tetrachloroethane	5 U	5 U	ND	ND		0/3
Toluene	5 U	5 U	ND	ND		0/3
Chlorobenzene	5 U	5 U	ND	ND		0/3
Ethylbenzene	5 U	5 U	ND	ND		0/3
Styrene	5 U	5 U	ND	ND		0/3
Xylene (total)	5 U	5 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/L) cont.						
Acrolein	500 U	500 U	ND	ND		0/3
Acrylonitrile	100 U	100 U	ND	ND		0/3
Trichlorofluoromethane	10 U	10 U	ND	ND		0/3
Dichlorodifluoromethane	20 U	20 U	ND	ND		0/3
Acetonitrile	100 U	100 U	ND	ND		0/3
Iodomethane	10 U	10 U	ND	ND		0/3
Propionitrile (Ethyl Cyanide)	50 U	50 U	ND	ND		0/3
3-Chloropropene	20 U	20 U	ND	ND		0/3
Methacrylonitrile	20 U	20 U	ND	ND		0/3
Dibromomethane	10 U	10 U	ND	ND		0/3
Isobutyl alcohol	2000 U	2000 U	ND	ND		0/3
1,2-Dibromoethane	20 U	20 U	ND	ND		0/3
1,1,1,2-Tetrachloroethane	10 U	10 U	ND	ND		0/3
1,2,3-Trichloropropane	10 U	10 U	ND	ND		0/3
trans-1,4-Dichloro-2-butene	20 U	20 U	ND	ND		0/3
1,2-Dibromo-3-chloropropane	20 U	20 U	ND	ND		0/3
2-Chloro-1,3-Butadiene	100 U	100 U	ND	ND		0/3
Methylmethacrylate	20 U	20 U	ND	ND		0/3
Ethylmethacrylate	20 U	20 U	ND	ND		0/3
Pentachloroethane	20 U	20 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L)						
Phenol	10 U	10 U	ND	ND		0/3
bis(2-Chloroethyl)ether	10 U	10 U	ND	ND		0/3
2-Chlorophenol	10 U	10 U	ND	ND		0/3
1,3-Dichlorobenzene	10 U	10 U	ND	ND		0/3
1,4-Dichlorobenzene	10 U	10 U	ND	ND		0/3
Benzyl alcohol	10 U	10 U	ND	ND		0/3
1,2-Dichlorobenzene	10 U	10 U	ND	ND		0/3
o-Cresol	10 U	10 U	ND	ND		0/3
2,2'-oxybis(1-Chloropropane)	10 U	10 U	ND	ND		0/3
meta & para-Cresol	10 U	10 U	ND	ND		0/3
N-Nitroso-di-n-propylamine	10 U	10 U	ND	ND		0/3
Hexachloroethane	10 U	10 U	ND	ND		0/3
Nitrobenzene	10 U	10 U	ND	ND		0/3
Isophorone	10 U	10 U	ND	ND		0/3
2-Nitrophenol	10 U	10 U	ND	ND		0/3
2,4-Dimethylphenol	10 U	10 U	ND	ND		0/3
Benzoic acid	50 U	50 U	ND	ND		0/3
bis(2-Chloroethoxy)methane	10 U	10 U	ND	ND		0/3
2,4-Dichlorophenol	10 U	10 U	ND	ND		0/3
1,2,4-Trichlorobenzene	10 U	10 U	ND	ND		0/3
Naphthalene	10 U	10 U	ND	ND		0/3
4-Chloroaniline	10 U	10 U	ND	ND		0/3
Hexachlorobutadiene	10 U	10 U	ND	ND		0/3
4-Chloro-3-methylphenol	10 U	10 U	ND	ND		0/3
2-Methylnaphthalene	10 U	10 U	ND	ND		0/3
Hexachlorocyclopentadiene	10 U	10 U	ND	ND		0/3
2,4,6-Trichlorophenol	10 U	10 U	ND	ND		0/3
2,4,5-Trichlorophenol	50 U	50 U	ND	ND		0/3
2-Chloronaphthalene	10 U	10 U	ND	ND		0/3
2-Nitroaniline	50 U	50 U	ND	ND		0/3
Dimethylphthalate	10 U	10 U	ND	ND		0/3
Acenaphthylene	10 U	10 U	ND	ND		0/3
2,6-Dinitrotoluene	10 U	10 U	ND	ND		0/3
3-Nitroaniline	50 U	50 U	ND	ND		0/3
Acenaphthene	10 U	10 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L) cont.						
2,4-Dinitrophenol	50 U	50 U	ND	ND		0/3
4-Nitrophenol	50 U	50 U	ND	ND		0/3
Dibenzofuran	10 U	10 U	ND	ND		0/3
2,4-Dinitrotoluene	10 U	10 U	ND	ND		0/3
Diethylphthalate	10 U	10 U	ND	ND		0/3
4-Chlorophenyl-phenylether	10 U	10 U	ND	ND		0/3
Fluorene	10 U	10 U	ND	ND		0/3
4-Nitroaniline	50 U	50 U	ND	ND		0/3
4,6-Dinitro-2-methylphenol	50 U	50 U	ND	ND		0/3
N-Nitrosodiphenylamine (1)	10 U	10 U	ND	ND		0/3
4-Bromophenyl-phenylether	10 U	10 U	ND	ND		0/3
Hexachlorobenzene	10 U	10 U	ND	ND		0/3
Pentachlorophenol	50 U	50 U	ND	ND		0/3
Phenanthrene	10 U	10 U	ND	ND		0/3
Anthracene	10 U	10 U	ND	ND		0/3
Di-n-butylphthalate	10 U	10 U	ND	ND		0/3
Fluoranthene	10 U	10 U	ND	ND		0/3
Pyrene	10 U	10 U	ND	ND		0/3
Butylbenzylphthalate	10 U	10 U	ND	ND		0/3
3,3'-Dichlorobenzidine	20 U	20 U	ND	ND		0/3
Benzo(a)anthracene	10 U	10 U	ND	ND		0/3
Chrysene	10 U	10 U	ND	ND		0/3
bis(2-Ethylhexyl)phthalate	10 U	10 U	1 J	3 J	AOCBHP03	2/3
Di-n-octyl phthalate	10 U	10 U	ND	ND		0/3
Benzo(b)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(k)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(a)pyrene	10 U	10 U	ND	ND		0/3
Indeno(1,2,3-cd)pyrene	10 U	10 U	ND	ND		0/3
Dibenzo(a,h)anthracene	10 U	10 U	ND	ND		0/3
Benzo(g,h,i)perylene	10 U	10 U	ND	ND		0/3
1,4-Dioxane	20 U	20 U	ND	ND		0/3
Pyridine	20 U	20 U	ND	ND		0/3
N-Nitrosodimethylamine	10 U	10 U	ND	ND		0/3
2-Picoline	10 U	10 U	ND	ND		0/3
N-Nitrosomethylethylamine	10 U	10 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L) cont.						
2,4-Dinitrophenol	50 U	50 U	ND	ND		0/3
4-Nitrophenol	50 U	50 U	ND	ND		0/3
Dibenzofuran	10 U	10 U	ND	ND		0/3
2,4-Dinitrotoluene	10 U	10 U	ND	ND		0/3
Diethylphthalate	10 U	10 U	ND	ND		0/3
4-Chlorophenyl-phenylether	10 U	10 U	ND	ND		0/3
Fluorene	10 U	10 U	ND	ND		0/3
4-Nitroaniline	50 U	50 U	ND	ND		0/3
4,6-Dinitro-2-methylphenol	50 U	50 U	ND	ND		0/3
N-Nitrosodiphenylamine (1)	10 U	10 U	ND	ND		0/3
4-Bromophenyl-phenylether	10 U	10 U	ND	ND		0/3
Hexachlorobenzene	10 U	10 U	ND	ND		0/3
Pentachlorophenol	50 U	50 U	ND	ND		0/3
Phenanthrene	10 U	10 U	ND	ND		0/3
Anthracene	10 U	10 U	ND	ND		0/3
Di-n-butylphthalate	10 U	10 U	ND	ND		0/3
Fluoranthene	10 U	10 U	ND	ND		0/3
Pyrene	10 U	10 U	ND	ND		0/3
Butylbenzylphthalate	10 U	10 U	ND	ND		0/3
3,3'-Dichlorobenzidine	20 U	20 U	ND	ND		0/3
Benzo(a)anthracene	10 U	10 U	ND	ND		0/3
Chrysene	10 U	10 U	ND	ND		0/3
bis(2-Ethylhexyl)phthalate	10 U	10 U	1 J	3 J	AOCBHP03	2/3
Di-n-octyl phthalate	10 U	10 U	ND	ND		0/3
Benzo(b)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(k)fluoranthene	10 U	10 U	ND	ND		0/3
Benzo(a)pyrene	10 U	10 U	ND	ND		0/3
Indeno(1,2,3-cd)pyrene	10 U	10 U	ND	ND		0/3
Dibenzo(a,h)anthracene	10 U	10 U	ND	ND		0/3
Benzo(g,h,i)perylene	10 U	10 U	ND	ND		0/3
1,4-Dioxane	20 U	20 U	ND	ND		0/3
Pyridine	20 U	20 U	ND	ND		0/3
N-Nitrosodimethylamine	10 U	10 U	ND	ND		0/3
2-Picoline	10 U	10 U	ND	ND		0/3
N-Nitrosomethylethylamine	10 U	10 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L) cont.						
Methyl methanesulfonate	10 U	10 U	ND	ND		0/3
N-Nitrosodiethylamine	10 U	10 U	ND	ND		0/3
Ethyl methanesulfonate	10 U	10 U	ND	ND		0/3
Aniline	50 U	50 U	ND	ND		0/3
N-Nitrosopyrrolidine	50 U	50 U	ND	ND		0/3
Acetophenone	10 U	10 U	ND	ND		0/3
N-Nitrosomorpholine	20 U	20 U	ND	ND		0/3
o-Toluidine	10 U	10 U	ND	ND		0/3
N-Nitrosopiperidine	10 U	10 U	ND	ND		0/3
a,a-Dimethylphenethylamine	50 U	50 U	ND	ND		0/3
2,6-Dichlorophenol	10 U	10 U	ND	ND		0/3
Hexachloropropene	20 U	20 U	ND	ND		0/3
p-Phenylenediamine	20 U	20 U	ND	ND		0/3
N-Nitroso-di-n-butylamine	10 U	10 U	ND	ND		0/3
Safrole	10 U	10 U	ND	ND		0/3
1,2,4,5-Tetrachlorobenzene	10 U	10 U	ND	ND		0/3
Isosafrole	10 U	10 U	ND	ND		0/3
1,4-Naphthoquinone	50 U	50 U	ND	ND		0/3
1,3-Dinitrobenzene	20 U	20 U	ND	ND		0/3
Pentachlorobenzene	10 U	10 U	ND	ND		0/3
1-Naphthylamine	10 U	10 U	ND	ND		0/3
2-Naphthylamine	10 U	10 U	ND	ND		0/3
2,3,4,6-Tetrachlorophenol	10 U	10 U	ND	ND		0/3
1,3,5-Trinitrobenzene	100 U	100 U	ND	ND		0/3
Diallate	10 U	10 U	ND	ND		0/3
Phenacetin	10 U	10 U	ND	ND		0/3
Diphenylamine	10 U	10 U	ND	ND		0/3
5-Nitro-o-toluidine	20 U	20 U	ND	ND		0/3
4-Aminobiphenyl	10 U	10 U	ND	ND		0/3
Pronamide	10 U	10 U	ND	ND		0/3
2-sec-Butyl-4,6-dinitrophenol	20 U	20 U	ND	ND		0/3
Pentachloronitrobenzene	10 U	10 U	ND	ND		0/3
4-Nitroquinoline-1-oxide	50 U	50 U	ND	ND		0/3
Methapyrilene	25 U	25 U	ND	ND		0/3
Aramite	20 U	20 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
SEMIVOLATILES (ug/L) cont.						
Chlorobenzilate	10 U	10 U	ND	ND		0/3
p-Dimethylaminoazobenzene	20 U	20 U	ND	ND		0/3
3,3'-Dimethylbenzidine	20 U	20 U	ND	ND		0/3
2-Acetylaminofluorene	20 U	20 U	ND	ND		0/3
7,12-Dimethylbenz(a)anthracene	20 U	20 U	ND	ND		0/3
Hexachlorophene	100 U	100 U	ND	ND		0/3
3-Methylcholanthrene	10 U	10 U	ND	ND		0/3
EPA METHOD 8141 (ug/L)						
o,o,o-Triethyl phosphorothioate	0.82 U	0.86 U	ND	ND		0/3
Thionazin	0.82 U	0.86 U	ND	ND		0/3
Sulfotep	0.82 U	0.86 U	ND	ND		0/3
Phorate	1.8 U	1.9 U	ND	ND		0/3
Dimethoate	3 U	3.1 U	ND	ND		0/3
Disulfoton	2 U	2.2 U	ND	ND		0/3
Methyl parathion	2 U	2.2 U	ND	ND		0/3
Ethyl Parathion	2 U	2.2 U	ND	ND		0/3
Famphur	2 U	2.2 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PESTICIDE/PCBS (ug/L)						
alpha-BHC	0.05 U	0.05 U	ND	ND		0/3
beta-BHC	0.05 U	0.05 U	ND	ND		0/3
delta-BHC	0.05 U	0.05 U	ND	ND		0/3
gamma-BHC (Lindane)	0.05 U	0.05 U	ND	ND		0/3
Heptachlor	0.05 U	0.05 U	ND	ND		0/3
Aldrin	0.05 U	0.05 U	ND	ND		0/3
Heptachlor epoxide	0.05 U	0.05 U	ND	ND		0/3
Endosulfan I	0.05 U	0.05 U	ND	ND		0/3
Dieldrin	0.10 U	0.10 U	ND	ND		0/3
4,4'-DDE	0.10 U	0.10 U	ND	ND		0/3
Endrin	0.10 U	0.10 U	ND	ND		0/3
Endosulfan II	0.10 U	0.10 U	ND	ND		0/3
4,4'-DDD	0.10 U	0.10 U	ND	ND		0/3
Endosulfan sulfate	0.10 U	0.10 U	ND	ND		0/3
4,4'-DDT	0.10 U	0.10 U	ND	ND		0/3
Methoxychlor	0.50 U	0.50 U	ND	ND		0/3
Endrin aldehyde	0.10 U	0.10 U	ND	ND		0/3
Isodrin	0.05 U	0.05 U	ND	ND		0/3
Kepone	0.1 U	0.1 U	ND	ND		0/3
alpha-Chlordane	0.5 U	0.5 U	ND	ND		0/3
gamma-Chlordane	0.5 U	0.5 U	ND	ND		0/3
Toxaphene	1 U	1 U	ND	ND		0/3
Aroclor-1016	0.5 U	0.5 U	ND	ND		0/3
Aroclor-1221	0.5 U	0.5 U	ND	ND		0/3
Aroclor-1232	0.5 U	0.5 U	ND	ND		0/3
Aroclor-1242	0.5 U	0.5 U	ND	ND		0/3
Aroclor-1248	0.5 U	0.5 U	ND	ND		0/3
Aroclor-1254	1 U	1 U	ND	ND		0/3
Aroclor-1260	1 U	1 U	ND	ND		0/3
HERBICIDES (ug/L)						
2,4-D	1.1 U	1.2 U	ND	ND		0/3
2,4,5-TP (Silvex)	0.22 U	0.23 U	ND	ND		0/3
2,4,5-T	0.22 U	0.23 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
PCDD/PCDF (ug/L)						
2378-TCDD	0.0011 U	0.0015 U	ND	ND		0/3
Total TCDD	0.0012 U	0.0015 U	ND	ND		0/3
Total PECDD	0.0012 U	0.0014 U	ND	ND		0/3
Total HXCDD	0.0013 U	0.0019 U	ND	ND		0/3
Total TCDF	0.00076 U	0.001 U	ND	ND		0/3
Total PECDF	0.00094 U	0.0011 U	ND	ND		0/3
Total HXCDF	0.0011 U	0.0017 U	ND	ND		0/3
TPH (ug/L)						
Gasoline	30 U	30 U	ND	ND		0/3
Diesel Fuel	0.13 U	0.16 U	ND	ND		0/3

FREQUENCY OF DETECTION SUMMARY
GROUNDWATER
CTO 348
SITES 11 AND 17
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO

SAMPLE ID MATRIX	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
ANALYTES (ug/L)						
Silver	2.6 U	2.6 U	ND	ND		0/3
Arsenic	1.8 U	1.8 U	ND	ND		0/3
Barium	NA	NA	7.3	71.4	AOCBHP02	3/3
Beryllium	1.5 U	1.5 U	ND	ND		0/3
Cadmium	2.8 U	2.8 U	ND	ND		0/3
Cobalt	2.2 U	2.2 U	4.6	4.6	AOCBHP02	1/3
Chromium	2.4 U	2.4 U	4	4.9	AOCBHP03	2/3
Copper	NA	NA	4.1	54.4	AOCBHP02	3/3
Mercury	0.2 U	0.2 U	ND	ND		0/3
Nickel	11.6 U	11.6 U	ND	ND		0/3
Lead	NA	NA	2.4	10.4	AOCBHP02	3/3
Antimony	18 U	18 U	ND	ND		0/3
Selenium	1.6 U	1.6 U	3.5	3.5	AOCBHP03	1/3
Tin	17.8 U	17.8 U	ND	ND		0/3
Thallium	1.6 U	1.6 U	ND	ND		0/3
Vanadium	NA	NA	10.2	42.3	AOCBHP03	3/3
Zinc	NA	NA	5.2	21.9	AOCBHP02	3/3
Cyanide	10 U	10 U	ND	ND		0/3
GENERAL CHEMISTRY (mg/L)						
Sulfide	1 U	1 U	ND	ND		0/3