N61165.AR.003809
CNC CHARLESTON
5090.3a

PROGRESS REPORTS FOR 1995 CNC CHARLESTON SC
1/1/1995
CNC CHARLESTON

PROGRESS REPORTS
1995

SCAN
RFI PROGRESS REPORTS
1995-1999
(Administrative Record)

PROGRESS REPORTS
1995

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
NAVAL BASE
CHARLESTON, S. C. 29408-6100

5090
Ser 106.2/0069
08 FEB 1995

Mr. Joseph R. Franzmathes
Director, Waste Management Division
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: FORWARDING OF THE QUARTERLY RFI PROGRESS REPORT.

Dear Mr. Franzmathes:

The purpose of this letter is to forward a copy of the RCRA Facility Investigation (RFI) Progress Report for the Naval Base Charleston Complex in order to comply with its Hazardous and Solid Waste Amendments Part B Permit (EPA SCO 170 022 560), condition II.C.5.

Enclosure (1) is the RFI Progress Report for activity up through January 31, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R L Laney

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Progress Report - Summary through 31 Jan 1995.

Copy to:
SCDHEC (Mr. David Walton)
SCDHEC (Mr. Joe Bowers)
COMNAVBASE (N34)
COMNAVBASE (N4BEC, Dearhart)
COMNAVBASE (N4BEC, Franklin)
SOUTHNAVFACENGCOM (Hunt)
SOUTHNAVFACENGCOM (Fielding)
USEPA (Mr. Doyle Brittain)
E/A&H
106.2 DF

RFI PROGRESS REPORT
PERIOD: SUMMARY OF ACTIVITY TO DATE
31 JAN 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.C.5. of the existing Part B permit as well as condition II.E.3.a of the Part B Permit Renewal dated 5 December 94 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP). Since this is the first status report to be generated for the NAVBASE RFI, the reporting period actually encompasses a period greater than 90 days in an attempt to summarize all activities to date. For all practical purposes, this represents the time period from May 92 to 31 January 95. Through the end of this reporting period, 395 solid waste management units (SWMUs) and areas of concern (AOCs) have been or are currently being addressed by a RCRA Facility Assessment (RFA). Of these sites, a total of 232 SWMUs and AOCs have been recommended for inclusion in the RFI. The list of sites can be found in Appendix A of the *Final Comprehensive Project Management Plan*.

II. PORTION OF THE RFI COMPLETED

- May 1992 to November 1992 - An active soil gas survey and geophysical study were performed at SWMUs 9 and 14. The soil gas survey identified several areas at both sites that will require further investigation under the RFI. The geophysical survey identified numerous anomalies or "targets" within the SWMU 9 landfill that were recommended for further evaluation. Fewer targets were located at SWMU 14, however, based on reported disposal practices at this site, additional investigative work was also recommended.

- May 1993 - Invasive trenching activities were performed to investigate the source of a number of the geophysical anomalies within SWMU 9. The geophysical data was overlain with the soil gas data to optimize the chances for locating potential contaminant sources such as metal drums. Materials uncovered during the trenching included items such as medical wastes, empty 5-gallon oil containers, one crushed drum, steel reinforced concrete, domestic garbage, cargo netting, gas masks, wood, etc. One soil sample per trench was collected from areas of visible staining or elevated photoionization detector readings.

- September 1993 to November 1993 - Pursuant to a verbal agreement with the regulatory agencies, RFI field activities were performed in accordance with the *Interim-Final RFI Work Plan*. Field work included soil sampling, sediment sampling, well installation, and groundwater sampling at SWMUs 1,2,6,7,8,9,21,22, and 25.

- February 1994 to March 1994 - The initial phase of the "Focused Field Investigation" being conducted in the vicinity of the Base Exchange in Zone H was completed. Field activities consisted of a passive soil gas survey, a groundwater tidal influence study, and indoor air sampling.

- August 9, 1994 to present - RFI field work being conducted in Zone H in accordance with the *Final Zone H RFI Work Plan* dated October 27, 1994. All proposed sampling described in the work plan has been completed. To date a total of 313 soil borings, 11 temporary monitoring wells, and 78 monitoring wells have been completed. The temporary wells were only used to aid in the location of permanent monitoring wells near SWMU 20 and were properly abandoned after groundwater samples were collected. Current sampling efforts are designed to fill data gaps identified by the initial phase of work. All additional sampling efforts are being conducted in accordance with the overall investigative strategy presented in the *Final Comprehensive Project Management Plan.*

- August 31, 1994 - The RFI Work Plan required by permit condition IV.C.1. has been subdivided into a comprehensive volume, which contains the required information relating to all sites, and the site specific volumes, which contain the required information that is unique to each site. The sites are grouped by zones for manageability. The comprehensive work plan was developed after it became apparent that the *Interim-Final RFI Work Plan* was technically inadequate to guide the investigation of the large number of sites identified by the Environmental Baseline Survey (EBS) performed under the BRAC requirements. The following volumes of the RFI Work Plan have been approved on the dates indicated;

  Final Comprehensive RFI Work Plan, August 30, 1994
  Volume I, Final Comprehensive Project Management Plan
  Volume II, Final Comprehensive Sampling and Analysis Plan
  Volume III, Final Baseline Risk Assessment Work Plan
  Volume IV, Final Comprehensive Health and Safety Plan
  Volume V, Final Comprehensive Quality Assurance Manuals
  Final Zone H RFI Work Plan, October 27, 1994

- November 1994 to December 1994 - The second phase of indoor air sampling associated with the "Focused Field Investigation" was completed. The data has been received, validated, and preparation of the technical memo nearly completed.

- November 16, 1994 - The Draft Final Zone I RFI Work Plan was submitted to the regulatory agencies for review. Comments have been received and preparation of the final document is underway.

- November 21, 1994 - The Draft Final Zone C RFI Work Plan was submitted to the regulatory agencies for review. Comments have been received and preparation of the final document is underway.

- The Draft Zone E RFI Work Plan has been submitted to the Navy for internal review.

III. SUMMARIES OF FINDINGS

Field work is completing in Zone H, however problems have been encountered in compatibility between the laboratory's electronic media deliverables and the contractor's database. These problems are expected to be corrected soon so that the summary will be available for the monthly report for February. A preliminary summary of the analytical results showing the class of compound found at each particular site within Zone H is provided in Attachment A.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

Due to difficulties encountered during the installation of the deep wells an alternative drilling technique was utilized. The RFI Work Plan specified that wells would be drilled with either hollow stem augers, water rotary, or mud rotary as a last resort. Based on an evaluation of the subsurface conditions encountered during the installation of the first two deep wells drilled, the decision was made to abandon the hollow stem auger method. A rotasonic method which was not addressed in the *Final Comprehensive RFI Work Plan* was proposed in lieu of the water or mud rotary techniques. The advantages of rotasonic include the ability to drill in flowing sand with minimal difficulty, a continuous core sample is obtained so the entire stratigraphic sequence can be observed, well installation is completed within a temporarily cased borehole which allows accurate placement of well materials, investigation derived waste is significantly reduced, and drilling rates are significantly faster. Prior to a full scale implementation, a demonstration was held for the Navy and regulatory agencies. A written procedure for the method that will be incorporated into the RFI Work Plan as a revision has been submitted to the regulatory agencies for approval.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

The Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remedial action of contaminated sites at Naval Base Charleston. The meetings are held monthly and began with the meeting held on 29 March 1994. The members of the board include Navy personnel (BECs and the facility), regulatory representation from both EPA and SCDHEC, natural resource trustees, local businesses, and local community members. The meetings are open to the public and are advertised in the local newspaper. The Navy Remedial Project Managers, BRAC Environmental Coordinators and Comprehensive Long-Term Environmental Action Navy (CLEAN) contractor (Ensafe/Allen & Hoshall) attend each meeting. The minutes of the RAB meetings through December 1994 are provided in Attachment (B). The minutes of the January 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

- Devices used for groundwater screening such as the Hydropunch, Geoprobe, etc. may be of limited usefulness due to the nature of the fine grain sediments encountered in the shallow aquifer. Attempts were made with limited success at SWMU 20 to collect groundwater samples using a Hydropunch but the fine grain sediments inhibited collection of samples. After several unsuccessful attempts were made, temporary monitoring wells were installed and sampled. The well were left in place approximately one week before abandonment.

- As mentioned previously under work plan deviations, the use of hollow stem augers for installation of the deep wells is not practical. Fine grain sediments "heaving" into the augers made collection of representative samples for lithologic description extremely difficult. This was a significant problem because the water bearing portions of the shallow aquifer consists of low yielding sand stringers that were not easily identified using the hollow stem auger method. Additionally, heaving of fine grain sediments into the augers during the installation of well materials compromised the integrity of the wells. As a consequence, several time consuming attempts had to be made to successfully complete the two deep wells that were installed with hollow stem augers. The rotasonic drilling method discussed above was implemented as the solution to the problem.

VII. KEY PROJECT PERSONNEL

Current relevant personnel assigned to Naval Base Charleston are included in this section. The list is limited to those personnel from the Navy or their contractor specifically responsible for compliance with conditions of the permit or involved in the environmental investigation relating to the RCRA Corrective Action process. Only recent changes resulting in current status are shown.

Navy Personnel

The following list of personnel includes the Charleston Naval Shipyard Commander, the Commander's designated representative (Code 106), the Navy Remedial Project Managers (RPMs) and the BRAC Environmental Coordinators.

Permittee
Charleston Naval Shipyard

Commander, (Code 100)
Captain William F. Nold replaced Captain T. J. Porter

Permittee Designated Representative
Occupational Safety, Health and Environmental Office (Code 106)

Department Head, (106)
Ralph L. Laney replaced Ron E. DeWitt

Environmental Division (106.2)
Amos T. Webb replaced W. B. Brasel
Earle H. Folger, came on board as the Shipyard RFI Coordinator

RCRA Programs (106.21)
William B. Powers replaced Mitch Mascoe

Remedial Project Manager (RPM)
Southern Division, Naval Facilities Command

Installation Restoration Branch III (Code 187)
Matthew A. Hunt and Thuane B. Fielding replaced Linda Martin

BRAC Environmental Coordinator (BEC)
Naval Base Charleston, Base Closure Office

BRAC Environmental Coordinators (N4BEC)
Patricia V. Franklin and Earl H. Dearhart

Contractor personnel

The following list identifies key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period.

Contractor
EnSafe/Allen & Hoshall
Principle in Charge
Dr. Jim Speakman

Task Order Manager
Todd Haverkost

Ginny Gray - Sr. Geologist
Dave Backus - Sr. Geologist
Joe Matthews - Geologist
Mark Bowers- Chemist/Risk Assessment
David Niesse - Engineer
Robert Moser - Engineer
David Trimm - Eco. Assessment
Brad Venner - Risk Assessment
Barry Doll - Geologist
Greg Temple - Environmental Scientist
James Watson - Technician
Todd Temple - Technician
Eddie Rogers - CAD
David Isenberg - Health and Safety Officer
Keith Curtis - Environmental Scientist
Britton Dotson - Geologist
Sam Weatherford - Geologist
Tim M°Cord - H&S Technician
Mike Banker - Engineer
Laura Pearson - Engineer
Ed Eaton - Engineer
Jay Cornelius - Environmental Scientist
Peter M°Pheters - Sr. Project Assistant
John Hardy - Geologist
Steve Thompson - Technician

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The Final Zone C and I RFI Work Plans will be submitted.
- The Draft Final RFI Work Plans for Zones E, J, and L will be submitted to the regulatory agencies for review.
- The Draft Focused Field Investigation Technical Memo will be submitted to the regulatory agencies for review.
- If funding becomes available, preparation of the Draft RFI Work Plans for Zones A and B will begin.
- Revisions to the Final Comprehensive RFI Work Plan will be submitted.

- The Corrective Action Management Plan (CAMP) will be updated to reflect schedule changes.
- Preparation of the Draft Zone H RFI Report and the Draft CMS Work Plan will begin.
- Validation of the Zone H data is expected to be completed.
- A representative cross section of the analytical data generated to date will be submitted to USEPA for validation.

Field Activities:

- Sampling in Zone H to fill data gaps will continue. Sampling is on schedule to be completed by March as stated in the CAMP.
- The second quarter of groundwater sampling in Zone H is scheduled to begin in March.
- Implementation of field sampling activities in Zones C and I are projected to begin the week of March 13, 1995.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report, however, this information is available for review upon request.

The Navy intends to provide summaries of the **validated** analytical data generated during each reporting period as an attachment to this report. For the current reporting period, no validated data is available. Instead, a summary of the current status of the analytical deliverables and the validation process will be given. All soil data from the samples proposed in the Zone H RFI Work Plan has been received from the laboratory and sent to an independent data validation contractor and validation is nearly complete. Beginning the week of February 6, 1994, EnSafe/Allen & Hoshall will begin receiving validation reports from the data validator in the form of hard copy reports. Where necessary, data qualifiers will be attached to data in the electronic data base and spreadsheets of the validated analytical data will be generated. All groundwater data from the first quarter of sampling has also been received and forwarded to the validator. The validation process for the groundwater data is also well underway. Data summaries will be provided with the monthly status report beginning with the report prepared for the month of February 1995 (which will be distributed by March 5, 1995).

ATTACHMENT (A)

PRELIMINARY SUMMARY OF FINDINGS

ZONE H

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
SWMU 9 CLOSED LANDFILL	Solid, industrial, and domestic waste landfill used from the 1930s until 1973.	Asbestos, varnish sludge, mercury, electroplating waste, paint wastes, PCBs, medical waste.	herbicides, pesticides, Total Petroleum Hydrocarbons, and Volatile Organic Compounds *Semi-Volatile Organic Compounds
SWMU 19 SOLID WASTE TRANSFER STATION	Solid waste transfer station for temporary storage prior to transport and disposal offsite.	Wastes have included dry trash, tires, and empty 55-gallon drums.	pesticides, metals, Volatile Organic Compounds, and Total Petroleum Hydrocarbons *Semi- Volatile Organic Compounds
SWMU 20 WASTE DISPOSAL AREA	Area adjacent to SWMU 19 where wastes were stored on bare ground beginning in 1985 but is currently no longer in use.	Batteries, wood, concrete, sandblasting residue.	Volatile Organic Compounds
SWMU 121 BLDG. 801 SAA	Collection/sorting/storage point for recyclable material for past six years; accumulation of hazardous wastes at satellite area.	Paint, used oil, and automotive batteries	pesticides, metals, Volatile Organic Compounds, and Total Petroleum Hydrocarbons *Semi-Volatile Organic Compounds
AOC 649 BRASWELL STORAGE AREA	Braswell Shipyards storage area for ship repair supplies and sandblasting media during the 1970s.	Sandblast media, welding supplies, and other unknown supplies used in ship repair.	Total Petroleum Hydrocarbons, Semi-Volatile Organic Compounds, and Volatile Organic Compounds

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
SWMU 15 INCINER-ATOR	Propane-fired incinerator reportedly used only to destroy classified documents.	Ash	herbicides, pesticides, and Volatile Organic Compounds *Semi-Volatile Organic Compounds
AOC 669 CURRENT INDOOR PISTOL RANGE	Building 1888 houses a pistol range. Lead bullets are trapped by a steel bullet trap, emptied weekly. Waste is sealed in 55-gallon drums and removed within 72 hours.	Lead	Data included in AOC 684.
AOC 670 FIELD SOUTH OF BLDG.1897	Former outdoor trap and skeet range operated from 1960 until the late 1970s. Lead bullets and broken clay targets were not recovered during operation.	Lead Calcium carbonate Asphalt pitch Brass	pesticides, and herbicides. *Volatile Organic Compounds, semi-Volatile Organic Compounds and metals
AOC 684 FORMER PISTOL RANGE	Former outdoor pistol range in operation from early 1960s until 1981. Lead bullets were fired into a soil berm and were not recovered.	Lead	Total Petroleum Hydrocarbons, herbicides, pesticides, and Volatile Organic Compounds *Semi-Volatile Organic Compounds No metals data available
SWMU 17 OIL SPILL AREA BLDG. 61	Site of a release in 1987 of approximately 14,000 gallons of No. 5 Fuel Oil beneath Building FBM 61 due to a ruptured underground fuel pipe.	No. 5 Fuel Oil, PCB-Containing Dielectric Fluid	Data has not been received

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 650 METAL TRADES STORAGE AREA	Storage area for Metal Trades, Inc. East of Building 672. Maps indicate operation in the 1970s.	Unknown supplies used in ship repair.	Volatile Organic Compounds *Total Petroleum Hydrocarbons
AOC 651 SANDBLASTERS STORAGE AREA	Sandblasters, Inc. storage area east of Building 672 operated in the vicinity of AOC 649 from the 1970s until 1991.	Abrasive blast media.	Same as AOCs 649 and 650.
AOC 654 BLDG. 661 SEPTIC TANK DRAIN FIELD	Abandoned septic tank and associated drain field connected to Building 661.	Solvents Oils Antifreeze Detergents Organic Wastes	pesticides and Volatile Organic Compounds *Semi-Volatile Organic Compounds
SWMU 13 CURRENT FIRE FIGHTING TRAINING AREA	1973 to present: Fire Fighting Training Area; diesel fuel and gasoline are ignited during training in a contained paved and bermed area.	Petroleum products	pesticides and Volatile Organic Compounds *Semi-Volatile Organic Compounds and Total Petroleum Hydrocarbons
SWMU 14 CHEMICAL DISPOSAL AREA	Burial site for disposed chemicals and warfare decontaminating agents non-corrosive (DANC), and possibly industrial wastes.	DANC-DS-2 and DANC-M4; contain diethylene triamine, ethyl cellosolve, and 1,1,2,2-tetrachloroethane	Data has not been received.

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 503 UXO SITE	Two Mark 17-Depth Bombs were reportedly jettisoned from a Naval vessel in 1943.	Unexploded ordnance	No sampling has been conducted.
AOC 653 AUTO HOBBY SHOP	A disused hydraulic fluid storage tank, suspected of leaking, is at the east end of Building 1508. Paints, solvents, thinners and petroleum products have been used and stored at the site.	Oils Paints Solvents Thinners Hydraulic fluid	pesticides and Volatile Organic Compounds *Semi-Volatile Organic Compounds, metals and Total Petroleum Hydrocarbons
AOC 655 Oil Spill Area	Approximately 300 gallons of No. 2 Fuel Oil spilled from a ruptured fuel line within Building 656 in 1985; About 150 gallons leaked to the soil below.	Petroleum	pesticides, Total Petroleum Hydrocarbons, semi-Volatile Organic Compounds and Volatile Organic Compounds
AOC 656 Petroleum Spill Between Buildings 602 and NS-71	No. 5 fuel oil spill in 1974 resulted from a rupture of underground oil lines between Facility 602 and the boiler in Building 71.	Petroleum	pesticides *Semi-Volatile Organic Compounds and Total Petroleum Hydrocarbons
AOC 662 FORMER GAS STATION	Former service station where two unregistered, steel USTs may still be present.	Petroleum Lead	pesticides and semi-Volatile Organic Compounds

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 663 FUEL PUMPING STATION	Active gasoline and diesel pumping station since 1983.	Petroleum Solvents Paints	pesticides and Total Petroleum Hydrocarbons *Semi-Volatile Organic Compounds
SWMU 136 SAA# 19	SAA associated with Building NS-53; receives hazardous waste from NS-83 and Facility No. 851.	Volatile Organic Compounds Metals Petroleum	Same as for AOC 663 in addition to metals
AOC 667 VEHICLE MAINTENANCE AREA	Routine maintenance of automobiles and heavy equipment, including oil changes and repair of hydraulic parts.	Petroleum products	pesticides and Volatile Organic Compounds *Semi-Volatile Organic Compounds and Total Petroleum Hydrocarbons
SWMU 138 SAA RELATIVE TO BLDG. 1776	SAA used for temporary storage of hazardous waste prior to transfer to a permitted hazardous waste storage facility.	Volatile Organic Compounds Waste oil Petroleum Antifreeze Oily rags	pesticides, semi-Volatile Organic Compounds, Total Petroleum Hydrocarbons and Volatile Organic Compounds
AOC 659 DIESEL STORAGE	30,000-gallon steel AST formerly used to store diesel fuel from 1958 until 1990.	Petroleum hydrocarbons	pesticides and Volatile Organic Compounds *Semi-Volatile Organic Compounds and Total Petroleum Hydrocarbons
AOC 660 MOSQUITO CONTROL	Used for mosquito control in the 1950s; possibly used for storage, mixing, and rinsing pesticides.	Pesticides Solvents	pesticides, semi-Volatile Organic Compounds and Volatile Organic Compounds

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

Zone H Summary Site Descriptions and Preliminary Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 661 EXPLOSIVES STORAGE	Unknown explosives were stored during the 1950s in a now demolished building.	Explosives	Has not been sampled
AOC 665 PYROTECHNIC STORAGE	Buildings 1889 and NS-46 are built on the former site of a pyrotechnic storage shed where unknown explosives were stored.	Pyrotechnic explosives	pesticides, Volatile Organic Compounds, and semi-Volatile Organic Compounds *Total Petroleum Hydrocarbons
AOC 666 FUEL STORAGE AREA	The site is a UST which supplies No. 2 fuel oil to the adjacent heating plant.	Petroleum (No. 2 Fuel oil)	Volatile Organic Compounds *Total Petroleum Hydrocarbons and Semi-Volatile Organic Compounds
SWMU 178 TRANSFORMER LEAK	Recently discovered transformer oil leak, approximately 50 feet South of Building X33-A	Transformer oil PCBs	metals, pesticides, Semi-Volatile Organic Compounds, and Volatile Organic Compounds *Total Petroleum Hydrocarbons

Notes:
* = compounds found which will likely exceed acceptable risk levels.

*Volatile Organic Compounds (VOCs)*include such materials as some of the constituents found in gasoline and degreasing solvents. Examples include Benzene and Trichloroethylene.

Semi-Volatile Organic Compounds (Semi-VOCs) are found in products such as fuel oil and wood treating compounds.

PCBs (Polychlorinated Biphenyls) used to be found in the dielectric fluids of electrical transformers and capacitors.

Total Petroleum Hydrocarbons (TPH) a measure of the total amount of petroleum -based products present in a sample. TPH does not identify which compounds are present.

ATTACHMENT (B)

RESTORATION ADVISORY BOARD

MEETING MINUTES

COMMANDER, NAVAL BASE CHARLESTON

RESTORATION ADVISORY BOARD (RAB)
MINUTES OF MARCH 29, 1994

The RAB meeting was called to order at 9:00 a.m. by Mr. Van Robinson, Co-Chairman.

Visitors:

Thomas Hindman	MUSC
Jim McNeil	Shipyard (Alternate)
Keith Johns	ENSAFE

Mr. Robinson stated that the meeting was planned to be about one hour. Immediately following the meeting a RAB tour of the Controlled Industrial Area was conducted.

The March 8, 1994 minutes of the RAB meeting were not discussed, but Mr. Robinson asked if everyone had received them. There were no further comments on the minutes and the minutes were accepted.

The minutes of the March 15, 1994 RAB meeting were passed out. The underlined portions of the March 15, 1994 RAB meeting minutes which represented administrative decisions by the Co-chairmen were read by Mr. Robinson. There were no immediate comments from the attendees.

Mr. Robinson announced that the next RAB meeting will be held on April 19, but regular meeting dates will be the second Tuesday of the month. Additional meetings will be called as necessary.

Mr. Robinson encouraged all RAB members to attend the BEST Affinity Group Sessions on Environmental Concerns, scheduled for Wednesday, April 13 from 8:00-10:00 a.m. at the Charleston Marriott Hotel.

Mr. Robinson stated that there would be no limit to the term length of RAB members, but that Co-Chairman would be subject to change after one year.

On a question about replacement of members, Captain Augustin said he saw no need to add members now in anticipation of possible resignations.

On the BRAC Cleanup Plan, Pat Franklin, BRAC Environmental Coordinator discussed how the base was divided into zones and how overall priorities were determined. She stressed that the plan was submitted to the Washington, D.C. level for approval, but remains a living document which can and will change as time progresses. In discussion, it was noted that areas where unexploded ordnance from World War II is thought to exist, investigation and early cleanup will be done.

Mr. Robinson asked to start with any written comments submitted on the Plan. Pat said there were none with the exception of those from within the BRAC Cleanup Team and that those were technical issues and Chapter 6 editorial comments.

Mr. Robinson especially suggested re-reading Chapter 4, because it is central to the entire process.

Diane Duncan of the U.S. Department of Interior, Fish and Wildlife Service stated that her organization was a Co-Trustee under CERCLA and is concerned that they are not being incorporated in the plan as Co-Trustees. She asked to brief the RAB on the role of Fish and Wildlife Service.

A question was asked concerning using Subpart S to 40 Code of Federal Regulations (CFR) part 264 as cleanup standards. Ann Ragan responded that Subpart S has not been approved for use and that it addressed action levels rather than cleanup standards.

Captain Augustin briefed the RAB on the overall closure and Reuse Schedule highlighting the Community's Reuse Plan, the Navy's Reuse Environmental Impact Statement, and other actions which will occur over the next two years.
Mr. Robinson thanked everyone for their input, and pointed out that, "we are still in the learning stage."

Pat Franklin stated if there are any questions to please write them down for the next meeting or call directly to discuss items with the BRAC Clean Up Team. Bobby Dearhart, BRAC Environmental Coordinator reiterated to please call with questions or call to set up meetings with the BCO and EPA. The Captain said the RAB is here to communicate with the community, and that RAB members should call or come in on an individual basis to explore topics when they have questions.

Mr. Robinson called the meeting to a close at 9:59 a. m..

March 29, 1994

RESTORATION ADVISORY BOARD MEETING
AGENDA

****

1. Minutes of March 8 meeting

2. Minutes of March 15 meeting

3. The Base Clean Up Plan (BCP)-Summary - Pat Franklin

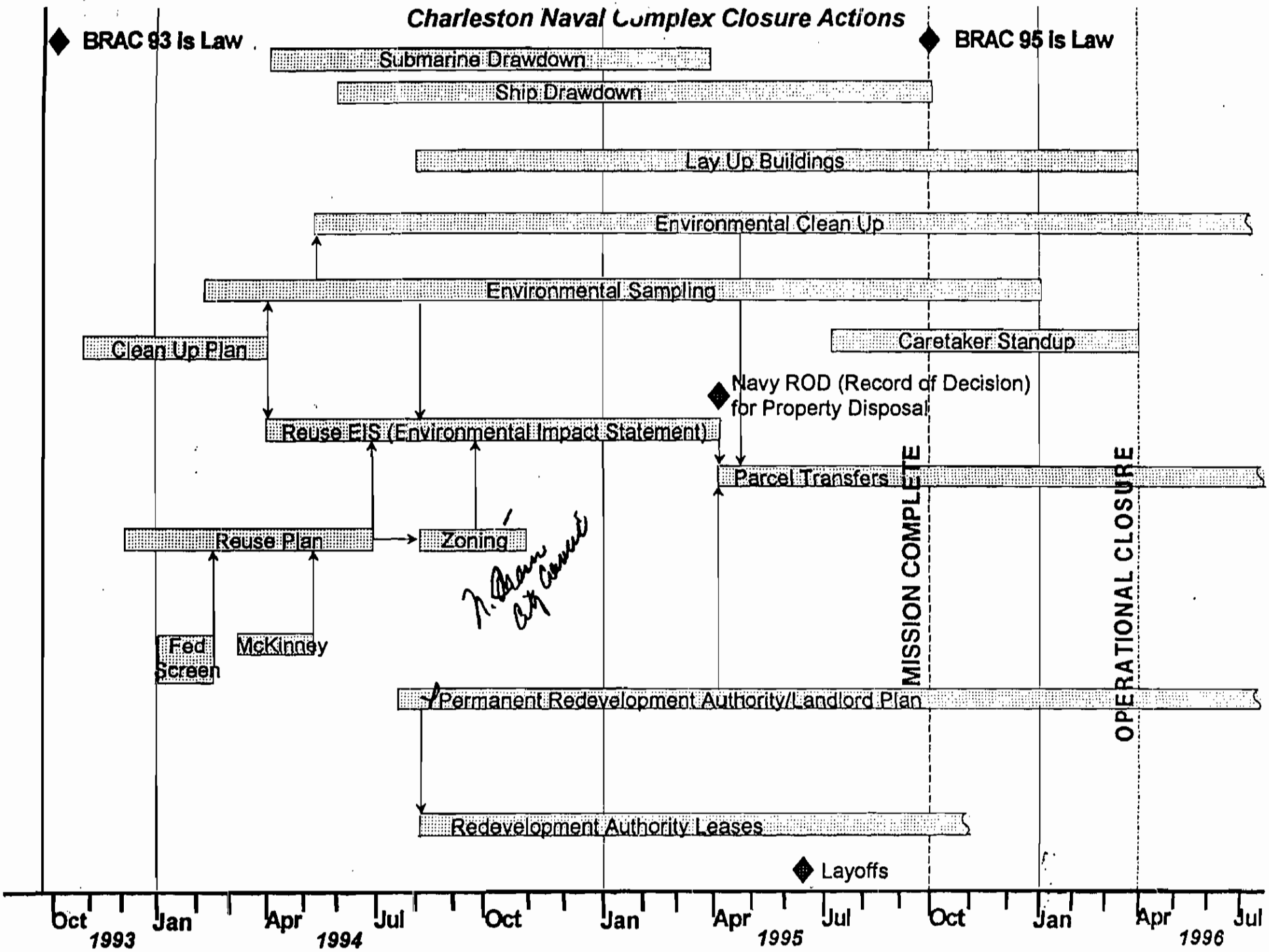
4. Comments/Questions on the BCP

5. Overall Closure/Reuse Schedule - Captain Jim Augustin

6. RAB Tour of controlled Industrial Area - One Hour

NEXT MEETING TUESDAY, APRIL 19, 1994.

TIME: 0900 LOCATION: TBA


Charleston Naval Complex Closure Actions
BRAC 93 Is Law
BRAC 95 Is Law
Submarine Drawdown
Ship Drawdown
Lay Up Buildings
Environmental Clean Up
Environmental Sampling
Clean Up Plan
Caretaker Standup
Navy ROD (Record of Decision) for Property Disposal
Reuse EIS (Environmental Impact Statement)
Parcel Transfers
MISSION COMPLETE
OPERATIONAL CLOSURE
Reuse Plan
Zoning
Fed Screen
McKinney
Permanent Redevelopment Authority/Landlord Plan
Redevelopment Authority Leases
Layoffs
Oct
Jan
Apr
Jul
Oct
Jan
Apr
Jul
Oct
Jan
Apr
Jul
1993
1994
1995
1996

BCO 3/29/94

DATE: MARCH 29, 1994

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

Mr. Oliver Addison _____

Captain Jim Augustin _____

Mr. Steve Best _____

Mr. Doyle Brittain _____

Mr. James Conners _____

Mr. Bobby Dearhart _____

Ms Diane Duncan _____

Ms. Susan Floyd _____

Ms. Pat Franklin _____

Captain Veronica Froman _____

Mr. Wilburn Gilliard _____

Mr. Donald Harbert _____

Mr. Ralph Laney _____

Ms. Wannetta Mallette _____

Ms. Madeleine McGee _____

Mr. Robert Mikell _____

Mr. Louis Mintz _____

Mr. A. C. Mitchum _____

Mr. Arthur Pinckney _____

Ms. Ann Ragan _____

Mr. Van D. Robinson _____

Ms. Jane Settle _____

Ms. Penny Travis _____

Mr. Bob Veronee _____

Ms. Jacquelyn White _____

DATE: MARCH 29, 1994

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

NAME	ORGANIZATION	PHONE
THOMAS HINDMAN	MUSC	886 6161
JIM McNeil	CNSY	743 3552
Don Harbert	SIWM	873-1104, 552-7726
KEITH JOHNS	ENSAFE	919-851-1886
CAPT FROMAW	NAVSTA	35587
CAPT WHITAKER	NAVSTA	35589
Rhonda Zaffard	Community	548 9368
Rob Mikell	SCCC	744-5838

COMMANDER, NAVAL BASE, CHARLESTON

RESTORATION ADVISORY BOARD (RAB)
MINUTES OF APRIL 19, 1994

The RAB meeting was called to order by Captain Jim Augustin, Co-Chairman.

Visitors:

Mr. Will Sloger - South Division, Naval Facilities Engineering Command
Ms. Marion Hopkins - Environmental Protection Agency-Region Four
Mr. Mitchell Bohannon - Thomas & Hutton Engineering Co.
Ms. Ledlie Bell - BEST Reuse Committee

He then announced that the BEST Sasaki briefing would be moved to later in the meeting.

The Captain said it is important for the members to see what Reuse is all about so that the RAB, which reviews the environmental cleanup of the base, can make the most informed recommendations. He referenced the Monday Report which listed a meeting between the Sasaki planners and EPA, and pointed out that Sasaki actually met with the entire BRAC Cleanup Team, not only Mr. Doyle Brittain, the EPA representative. The meeting was a very helpful session in understanding the links between reuse and environmental cleanup. He referred all back to the BRAC Cleanup Plan and its timetables.

The Captain stated that the meeting is designed to run from 9:00-11:00 a.m.

He asked if everyone had received the agenda for today's meeting and minutes of March 29, 1994 meeting. As a general rule, meeting minutes will be sent out before the following meeting so that all members may submit written or phone comments. Comments on the March 29, 1994 minutes may be made within the next two weeks so that they can be finalized.

The Captain stated that as the Reuse Plan takes shape, the BRAC Cleanup Plan will be updated and refined. He then introduced Pat Franklin, BRAC Environmental Coordinator. Pat briefed the new directions being taken on the base cleanup. The prioritization of the initial zones was: H- State Department property, E -Shipyard, D - Warehouse space along McMillian Avenue. After the meeting of Sasaki and the BRAC Cleanup Team the primary reuse emphasis appears to be in Zone C which includes the old Naval Hospital (COMNAVBASE Headquarters), and Buildings 234 (Shipyard Headquarters), 198 (Supply Center), and 400 (new Public Works Building). Hence, the BRAC Cleanup Team proposes to change the highest BRAC Cleanup Plan priorities to

BRAC Cleanup Team proposes to change the highest BRAC Cleanup Plan priorities to Zones H, E, & C. This brought a general discussion from the floor including concerns about environmental cleanup, human health concerns, Finding of Suitability to Lease (FOSL), the criteria included in a FOSL, checklist by which environmental investigations are made, testing of contaminated areas, possible cleanup disruption of occupants already using buildings as well as reimbursement of cost to employers, and land which may convey to NOAA. Transfers of land to another Federal agency do not require parcels to be clean, however Navy retains responsibility to clean them up if necessary.

Susan Floyd raised a concern that the Navy may close the base and leave the environmental problems to the community. Captain Augustin asked each RAB member to make it known that while Navy operations will cease, the Navy's responsibility to cleanup the base remains and it will accomplish the work.

Bobby Dearhart stated that the Southern Division of the Naval Facilities Engineering Command will be the caretakers after base closure and will continue to pursue envrironmental cleanup for as long as necessary.

Doyle Brittain, EPA representive, along with Pat Franklin and Bobby Dearhart, BRAC Coordinators offered to brief any group and discuss environmental questions or concerns.

Mr. Arthur Pinckney submitted questions about cleanup. Captain Augustin thanked him for the interest and stated he would give the questions to BRAC Cleanup Team for answers.

The Captain introduced Mr. Micthell Bohannon of the Sasaki planning team. He summarized the three overall aproaches that Sasaki has recommended on how the base can be reused. This brought discussion about Human services, Homeless Providers, and civic uses.

The Captain briefed everyone that there is a positive interest by major industrial firms who believe the shipyard can be used as a commercial shipyard. This would benefit the work force and maintain jobs here. Environmental requirements may be reduced by the "hot turnover" of industrial facilities.

Ledlie Bell brought up the subject of the McKinney Act and made the point that it is important to undersand its provisions. There is a potential for conflict between community service providers and other reusers.

Captain Augustin introduced Mr. Will Sloger who gave an Overview of the Reuse Environmental Impact Statement Process.

Madeleine McGee stressed the importance of the BEST public forums which are going on, and encouraged RAB members to pass the word to the community so there will be more attendance.

The Captain explained that the Environmental Impact Statement is paramount to the community because only after it is complete can the Secretary of the Navy make a Record of Decision on the disposition of the base property.

Doyle Brittain passed out EPA Resource Conservation and Recovery Act (RCRA) Orientation manuals to all members. RCRA is the principal legislation governing the cleanup of the base and all members need to be familiar with it.

Biographical information sheets will be sent out so that a compilation of information may be shared with RAB members.

The Captain asked Mr. Van Robinson if he had anything to add. Mr. Robinson stated that RAB members should be communicating with the community. The RAB does not have all the answers, but must be a forum for communication. RAB members are encouraged to bring questions to the meetings and let the community know that community inputs are a part of the process.

The Captain asked if there were any more administratives matters to be discussed. He passed out a listing of familiarization information for the RAB and asked for additions. Pat Franklin talked about Earth Week. She invited all to come to Southern Division to Open House the following day to visit and learn more about the projects and programs.

The Captain asked that if anyone had any questions to feel free to come into the office. He said overall he is very pleased with the discussions and insights at these meetings. Things are coming into focus at a rapid rate.

Next RAB meeting will be held from 9:00 to 11:00 a.m. on May 10, 1994 at the Cooper River Center in the Cooper River Room, Charleston Naval Base.

The meeting was adjourned.

RAB BIOGRAPHICAL INFORMATION

All Information is provided on a voluntary basis. The goal is to compile the data provided and share it with the RAB members.

NAME: _____

Please include home and/or work information to update as necessary the RAB directory provided to all members.

ADDRESS: _____

_____

PHONE NO. ( ) _____ ( ) _____

Specific groups you represent or have contact with: (for Navy or other Agency representative, response might be "none.")

_____

_____

Background information germane to the RAB: (i.e., education, work, environmental group/club membership, etc.).

Reason for wanting to be on the RAB <u>or</u> what you feel you bring to the RAB:

Familiarity with the base (area of knowledge, how obtained, etc.).

Other Comments:

Directions to SOUTHDIV: North on Rivers ... to Cary Willard St.
Turn first left into parking.

SOUTHDIV CELEBRATES

EARTH WEEK 1994

MONDAY APRIL 18 AT 1130

SAM PASSMORE, SOUTH CAROLINA COASTAL CONSERVATION LEAGUE - Mr. Passmore will speak on the Coastal Conservation League's effort to control the impact of urban development on the environment.

TUESDAY APRIL 19 AT 1130

BRUCE CAMPBELL, UNITED STATES GEOLOGICAL SURVEY - Mr. Campbell will discuss the investigation and remediation plans for the South Carolina State Aquarium.

WEDNESDAY APRIL 20 FROM 1000 - 1200

ENVIRONMENTAL OPEN HOUSE - Drop by to meet Code 18 employees and enjoy some refreshments. We will have an exhibition on some of our Environmental projects and programs such as Environmental Cleanup, Hazardous Waste Management, Air, Asbestos, Water Management, Solid Waste, PCB's and Underground Storage Tanks.

THURSDAY APRIL 21 AT 1130

CAROL WEISSKOPF, Ph.D., THE INSTITUTE OF WILDLIFE AND ENVIRONMENTAL TOXICOLOGY, CLEMSON UNIVERSITY - Dr. Weisskopf will speak on the contribution of atmospheric deposition to the input of contaminants into the waters of the Charleston Harbor.

FRIDAY APRIL 22 AT 1130

LONNIE HAMILTON, CHARLESTON COUNTY COUNCIL - Mr. Hamilton will discuss the progress and future of the Charleston County Incinerator and associated Charleston County environmental issues.

ALL EVENTS, EXCEPT THE OPEN HOUSE, WILL BE IN THE MAIN CONFERENCE ROOM.

May 9, 1994

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
QUESTIONS AND ANSWERS CONCERNING ENVIRONMENTAL CLEAN-UP
SUBMITTED BY ARTHUR PINCKNEY ON APRIL 19, 1994

1. How clean is clean? Will the base be cleaned to residential standards, industrial standards or what?

- Every effort will be made to restore the Base to the same environmental quality originally present before the Base existed. The technical terminology for this is to attempt "to clean-up the Base to background conditions." Determining background environmental quality will be difficult because large areas of the Base are dredged material.

If, and only if, it becomes apparent that background environmental quality cannot be determined, then the Base will be cleaned up to a level that will pose no significant risk to humans or the environment. The amount and type of clean-up will not be determined by anticipated future land use.

2. What opportunity will the public have to review the proposed cleanup plan?

- The BRAC cleanup plan (BCP) is a management tool for maintaining status, schedules, strategies and budget information pertaining to environmental restoration of the Naval Base. At present the BCP is at the Under Secretary of Defense (USD) for review and approval. After approval by USD, the BCP will be updated with the latest status, and information and copies will be placed in the public repositories for access and review by the general public. The BCP was distributed to each RAB member for review and comment, and to allow the RAB members to see first hand the strategy and processes necessary to make base property available for public use.

3. How does the Navy's environmental impact statement being prepared relate to the BRAC cleanup plan?

- The Environmental Impact Statement (EIS) is a requirement of the National Environmental Policy Act (NEPA) which was signed into law in 1970. NEPA requires federal agencies to incorporate environmental consideration in their planning and decision making through a systematic approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major actions significantly affecting the environment such as the Naval Base closure and its property reuse. This assessment is called an Environmental Impact Statement (EIS) and is being prepared for the Naval Base by Southern Division Naval Facilities Engineering

Command. The EIS is required to be completed within twelve months after an approved community reuse plan is developed and will be submitted to the Chief of Naval Operations for evaluation for any significant impact. The BCP as stated above is a management tool used by the BRAC Cleanup Team (BCT) to coordinate all aspects of the environmental cleanup process. The EIS is one part of the BCP process.

4. When in May will the Environmental Baseline Survey be completed? How will the public get to see it?

- The draft Environmental Baseline Survey (EBS) is being reviewed by the Navy. The (EBS) is a snapshot of the environmental condition of property developed during the base fence-to-fence survey conducted earlier this year. It is required to be submitted to the South Carolina Department of Health and Environmental Controls (SCDHEC) by December of this year to identify Clean Parcels which are available for deed transfer to the public. No decision has been made as of yet on how the EBS will be made available to the general public.

5. What is the previous experience of Ensafe/Allen & Hoshall (the firm firm hired to prepare the Cleanup Plan and the Environmental Impact Statement)?

- Environmental & Safety Designs, Inc. (Ensafe) is an environmental consulting firm founded in Memphis, Tennessee in 1980 with the goal of providing responsive consulting services in the areas of hazardous waste management, hazardous substance remediation, hazardous materials safety and transportation, and environmental management. Ensafe has one of the largest staffs of environmental specialist in the Mid-south, including more than 50 geologists, environmental engineers, chemists, safety specialists, risk assessors, community relations experts and environmental scientists. Ensafe's work includes environmental management services with emphasis on compliance issues at Department of Defense installations.

6. Is it possible or likely that any of the contaminated areas of the base will qualify as Superfund sites?

- The Environmental Protection Agency (EPA) reserves the right to add any area to the National Priorities List (NPL) as a Superfund site anytime new information becomes available which justifies such action. This is always a possibility at any hazardous waste site in the United States.

  EPA has reviewed all currently available information and determined that there is currently no justification for adding a site at Naval Base Charleston to the NPL as a Superfund site. Based on currently available information, we do not expect that subsequent investigation will justify such action.

7. How will federal agencies use the base if it has not been cleaned up yet?

- There is no requirement for property to be uncontaminated or cleaned prior to transfer to or used by federal agencies. It is the policy of the Navy to provide the condition of the property to the receiving federal agency prior to the transfer in the form of a property specific EBS. All property will be investigated and cleaned up on the base whether it will be used by another federal agency or not.

8. How many of the 153 underground storage tanks are leaking?

- The total number of underground storage tanks (UST) on the base has not been fully determined. During the base investigation a complete inventory of USTs is being developed. All leaking USTs will be removed and remedial action taken to respond to any releases to the environment.

9. The BRAC Cleanup Plan says that the Environmental Baseline Study was conducted "under extreme constraints of time and accessibility" (p. 3-15). What does this mean exactly and how accurate can we consider it to be given this fact?

- The Environmental Baseline Survey (EBS) is one part of the President's "Fast Track" turnover of base property for community economic redevelopment. To expedite this process the Secretary of Defense established a time table for development of plans for environmental cleanup of the base. Ensafe/Allen & Hoshall was given four months to perform the fence-to-fence survey including mobilization and research. The EBS was developed from the information obtained by the survey which included review of all available records and interviews with past and present employees. It is a compilation of the best available information and is being utilized only for making initial determination of clean property for immediate availabilty to transfer by deed to the local community.

10. Are there any citizens representing environmental groups or citizens with environmental experience on the Restoration Advisory Board? If not, why not?

- The Restoration Advisory Board (RAB) is intended to bring together members who reflect the diverse interests within the local community, enabling the early and continued two-way flow of information, concerns, values, and needs between the affected community, Navy and environmental regulating agencies. Being a member of an environmental group or having an environmental background was not a prerequisite for selection as a community representative to the RAB. Invitation to apply for membership was extended to all groups and community members. Selection was provided by a non-biased group with emphasis on the diverse

interest within the local community. Several community members did identify on their applications that they have some environmental experience which will be an asset to the RAB.

11. The BRAC Cleanup Plan says "minimal investigation and sampling has been done at the base" (p. 3-31), and so the majority of the base remains unevaluated for contamination. What is being done to evaluate these areas?

- SOUTHDIV has a contract with Ensafe/Allen & Hoshall to prepare a RCRA Facility Investigation (RFI) workplan which will be submitted to EPA and SCDHEC for approval. The RFI provides all requirements for investigation, sampling and analysis of the Naval Base to determine the types and concentrations of contamination present in the environment, how widespread the contamination may be, how fast the contamination may be migrating through the environment, and what adverse impact or threat the contamination poses to human health and the environment. The base has been divided into zones to provide manageable areas for the investigation. These zones and the strategies to be used are detailed in Section 4 of the BCP. The RAB and BEST committee reuse plan will be used to determine the priorities in which the zones will be investigated.

12. Given the high water table, how is the possibility of groundwater contamination being addressed?

- The RFI will provide the detailed investigative requirements for identifying contamination. This will include soil samples as well as water samples. If groundwater is found to be contaminated, it will be addressed. Groundwater monitoring wells will be used for water sampling and long term monitoring to ensure implemented corrective measures are working satifactorily.

13. From the BRAC Cleanup Plan, it looks like there is a lot of asbestos and PCB contamination. Does this represent a serious problem? How will it be cleaned up?

- Although asbestos does exist on the base and there is a likelihood that some PCB contamination will be found, neither are considered serious problems. Asbestos surveys have been previously performed on the Naval Base. Friable asbestos which poses health concerns is being abated as it is identified. Any other asbestos will be evaluated to determine if it is accessible/friable. If it is the Navy will take the appropriate action for abatement prior to transfer. The existence of asbestos that is not accessible/friable will be disclosed to the property receiver. PCB contamination will be investigated during the RFI for each zone and the appropriate remedial action taken if contamination is found.

14. Will "Zone E" as listed in the BRAC Clean Up Plan be cleaned

up first because it is the most contaminated and offers the greatest potential for job creation?

- The selection of priorities for zone investigation considered several factors including the concern for environmental contamination and the potential for reuse. Unless other reasons prevailed, priorities for zone investigation have been based on actual or potential reuse. The existing sequence does not preclude a change in priorities if a reason to do so is identified. However, once the investigation has been initiated in a zone it is planned to be completed prior to leaving the zone. The current strategy is to use two teams to conduct the investigation activities to allow at least two zones to be investigated in parallel. Identification of investigative priorities will be subject for review by the RAB.

15. Is there a way to produce documents for the public that are summaries of the most important information in language that lay people can understand?

- The BCT plans to issue "Fact Sheets" that can be readliy understood by the general public. Unfortunately the environmental world is filled with legal and technical terminology, and acronyms. The "Fact Sheets" will be produced in lay language to the maximum extent possible while maintaining the needed meaning for correct interpretation. The BCT will request the RAB to assist in development and providing comments on the "Fact Sheets" prior to them being issued. The BCT is also preparing a briefing package concerning BRAC and the environmental cleanup process that will be suitable for presenting to local interest groups in the community. This briefing will be presented at the next RAB and members will be requested to provide comments on its content. The BCT is open to other suggestions on information distribution to the general public.

16. Will the Environmental Impact Public Meetings be held the week of April 25?

- The EIS public meetings were postponed to the week of May 9 to coincide with the BEST committee consultant briefings. The schedule for these meetings will be provided at the RAB meeting on May 10.

DATE: 19 Apr 94

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

Mr. Oliver Addison
Captain Jim Augustin
Requested ✗ Mr. Steve Best
Mr. Doyle Brittain
Mr. James Conners
Mr. Bobby Dearhart
Ms Diane Duncan
Ms. Susan Floyd
Ms. Pat Franklin
Captain Veronica Froman XO
Mr. Wilburn Gilliard
Mr. Donald Harbert
Mr. Ralph Laney
Ms. Wannetta Mallette
Ms. Madeleine McGee
Mr. Robert Mikell
Mr. Louis Mintz
✗ Mr. A. C. Mitchum
Mr. Arthur Pinckney
✗ Ms. Ann Ragan
Mr. Van D. Robinson
✗ Ms. Jane Settle
Ms. Penny Travis
Mr. Bob Veronee
Ms. Jacquelyn White

VISITORS **DATE:** 19 April 94

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

NAME	ORGANIZATION	PHONE
Will Sroboer	Southdiv	743-0797
Marion Hopkins	EPA R. 4	404/347-3776
Mitch Bohannon	Thomas & Hutton	849-0200
Julie Boe	Best Rem	571-1251
~~White, Jacqulynn~~	~~[illegible]~~	~~[illegible]~~

COMMANDER, NAVAL BASE, CHARLESTON

RESTORATION ADVISORY BOARD (RAB)
Minutes of May 10, 1994

1. **Call to Order**: The meeting was called to order by Mr. Van Robinson, Co-Chairman.

2. **Introduction of Visitors**: Austin Hilligas, BEST Representative
Keith Johns, ENSAFE Representative
Michelle Glenn, EPA, Region Four, BRAC Team Leader
David Walton, South Carolina DHEC Representative

3. **Comments on Minutes**: There were no comments. The minutes to the April 19, 1994 minutes were accepted.

4. **Additional Comments on BRAC Cleanup Plan**: Mr. Lou Mintz asked if there was a status report on the cleanup plan. Mrs. Pat Franklin, BRAC Environmental Coordinator, reported that the initial BRAC Cleanup Plan was submitted and is now in the Under Secretary of Defense's office for approval. Changes are being gathered for the next revision. Mr. Bobby Dearhart stated that it is important to have any RAB member comments by next month.

Mr. Lou Mintz asked when investigation and cleanup work actually begin. Mrs Franklin stated that we are waiting for approval of the RCRA Facility Investigation Workplan and investigation work should begin in July if the workplan is approved in June. The work will be done by contract.

Process cleanup has already started. The Shipyard is in the first step of cleaning tanks as a part of process closure and funding has been received. They must abide by certain standards for closing down operations. RCRA Cleanup is slated for early 1996.

Ms. Michele Glenn asked if there was any kind of assurance that the Navy would get money for process closure. CDR Whitaker stated that the Naval Station is under Commander in Chief Atlantic Fleet (CLF) which is different from the Shipyard. There appears to be money available at CLF to permit process closures to commence.

Mr. Robinson asked Mr. Dearhart how the Reuse Plan fits into the changes of Base - based on preliminary reuse plans by BEST.

Mrs. Franklin said no. Since its early in the process, we can change zone priorities as it makes sense to do so.

CAPT Augustin stated that the plan is definite and specific, but allows changes to what makes sense. There is no lack of determination or organization because of the changes being made. No time is being lost by adjusting the Reuse Plan now.

Mr. Robinson asked if there were any comments on the Cleanup Plan. There were none.

5. **Environmental Cleanup of Naval Base Charleston Brief**. Mrs. Franklin announced that she would like to take this presentation or an adaptation to community group and other organizations so they can understand the Navy's environmental responsibility and plans.

The brief was on the Base Closure Process, environmental cleanup of Naval Base Charleston and property transfer of the Naval Base and Naval Station Annex. Mrs. Franklin asked for any questions or comments.

Mr. Robinson commented on the length of brief. Referring to Rotary Clubs, he said they only allow presentations of about fifteen minutes with five additional minutes for questions. Further he said that the community will key not only on environmental issues but also on Closure issues. Base closure is where community's interest lies. Mr. Jim Conner suggested that it may be advisable for someone from BCO to attend also.

Ms. Susan Floyd commented that the environmental brief should emphasize that the Navy is still investigating the conditions on base.

Mr. Arthur Pinckney said if EPA regulations first came out in the 1970s, why are there still unknowns today, and nothing done?

CAPT Augustin said part of the explanation is historic. The Base began in 1902, seventy years before environmental regulation. RCRA started in 1972. Many compliance measures have been taken since that time. A separate program called Installation Restoration was in progress at the time of the Closure announcement. Under Installation Restoration 36 sites were being examined for cleanup. Closure broadens and expedites the entire cleanup effort.

Ms. Glenn stated that the past focus has been on Superfund sites as the highest priority, permanent facilities, and then those facilities doing their IR (Installation Restoration) on their own. There have not been enough resources to do everything at once. Today, Base Closure is now the highest priority, specifically Charleston, Myrtle Beach, and
Homestead within Region IV. The federal government is now giving these sites their undivided attention.

Mr. Conner stated that because of new regulations millions were spent in recent years on cleaning up the shipyard, air, river and many other areas. Our shipyard is today a lot cleaner and better than it was in 1972. The EPA came on board and said you need to do something. We have done a tremendous a job in the Shipyard.

Ms. Michelle Glenn, EPA, Region Four, BRAC Team Leader stated that from the EPA's perspective, citizens need to understand that emphasis is being reassessed and limited funds are being placed on closure bases.

6. **Questions submitted by Mr. Arthur Pinckney.** It was decided that everyone would review the answers and bring thoughts and any questions to next meeting.

Mr. Robinson asked Mr. Pinckney how the question were developed. Mr. Pinckney stated that the questions were from interested people within the community.

7. **Environmental Presentation from Ms. Michelle Glenn, EPA, Region Four, BRAC Team Leader.**

Ms. Glenn stated that the EPA is very appreciative of the Navy's cleanup plan efforts, and overall commitment. She said the EPA is giving 100 % to the cleanup plan. We need help from the RAB to work on policy and encouraged RAB members to identify problems.

Ms. Ledlie Bell questioned the flexibility of the April 6 Federal Regulations implementing the President's Five Point Program. Ms. Bell stated that there was a meeting in Chicago, and wondered if EPA Region Four was there. CDR Moore stated that the EPA was not at the meeting. Since the meeting was on real and personal property. DOD will work with the EPA as necessary.

Ms. Glenn added that her understanding of the April 6 Federal Regulations is that economic reuse is the number one priority. There was a time when transfer of federal property was for profit. That obstacle has been removed for us. Economic reuse is the main driving factor.

Ms. Glenn announced a DOD-EPA sponsored meeting on Restoration Advisory Boards training in Atlanta on 15-16 June 1994.

Mr. Conner asked if local people are going to be used for environmental cleanup. Ms. Glenn stated they must be qualified under OSHA. Mrs. Franklin stated the Bechtel, the primary cleanup contractor would use local people as much as possible.

8. **COMMENTS**: CAPT Augustin discussed the need for presenting a focused meeting sponsored by RAB to speak directly to the community.

Mr. Robinson asked that everyone turn in their Biographical Information sheets.

Mr. Doyle Brittain reported that on May 18 the Navy's RCRA Facility Work Plan will be delivered to EPA. The Navy will then mail copies to RAB members. Comments were requested to Mr. Brittain by 3 June. The plan describes how we are going to collect samples.

CAPT Augustin announced the time of the Affinity Group meeting in Cochran Hall for 9:00 a.m. the following day. He also announced the time and place of the public meetings for Chicora, North Charleston, Berkeley, and Dorchester counties. He asked all-- RAB members to please get the word out to the community. These meetings are very critical to reuse planning.

9 **TIME AND LOCATION FOR THE NEXT MEETING**: At 9:00 a.m. in the Cooper River Center ,Cooper River Room on 12 July 1994.

10. **ADJOURNMENT**. With no further business to discuss, the meeting was adjourned.

May 10, 1994

RESTORATION ADVISORY BOARD MEETING AGENDA

A. Comments on the minutes of last meeting

B. Additional comments on Base Cleanup Plan

C. RAB Critique of "Community Presentation" prepared by BRAC Cleanup Team

D. Responses to Questions from Mr. Pinckney

E. Remarks by Ms. Michelle Glenn, EPA Region 4 BRAC Team Leader, on BRAC Cleanup efforts Nationwide

F. Collect RAB Member biographical info sheets

G. General Comments/Announcements

H. Adjourn

Next Meeting will be Tuesday June 14, 1994 at the Cooper River Recreation Center, Naval Base Charleston. Time of day for meeting to be decided.

DATE: 10 MAY 1994

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

Mr. Oliver Addison	Oliver W. Addison
Captain Jim Augustin	
Mr. Steve Best	
Mr. Doyle Brittain	Doyle T Brittain EA7
Mr. James Conner	James Conner
Mr. Bobby Dearhart	Bobby Dearhart
Ms. Diane Duncan	
Ms. Susan Floyd	Susan J. Floyd
Ms. Pat Franklin	Patty Franklin
Captain Veronica Froman	for
Mr. Wilburn Gilliard	Wilburn Gilliard
Mr. Ronald Harbert	
Mr. Ralph Laney	Ralph L Laney Jr
Ms. Wannetta Mallette	Wannetta Mallette
Ms. Madeleine McGee	
Mr. Robert Mikell	Bob Mikell
Mr. Louis Mintz	L. C. Mintz
Mr. Arthur Pinckney	
Ms. Ann Ragan	A. A. Ragan
Mr. Van D. Robinson	Van Robinson
Ms. Jane Settle	
Ms. Penny Travis	Penny Travis
Mr. Bob Veronee	Bob Veronee
Ms. Jacquelyn White	

DATE: 10 MAY 1994

VISITORS

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

NAME	ORGANIZATION	PHONE
Michelle Glenn	EPA/Region 4	404 347 3016
~~Doyle J. Brittain~~	~~EPA~~	~~803 443-9985~~
Austin Hilligas	BEST	803 724-0670
David Walton	SCDHEC	803 734-4814
Lori Bell	Base Realty	803-571-1281
Keith Johns (please send a copy of minutes, thanks)	ENSAFE/Allen & Hoshall 4900 Waters Edge Dr, Ste 185 Raleigh NC 27606	919-851-1886

May 9, 1994

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
QUESTIONS AND ANSWERS CONCERNING ENVIRONMENTAL CLEAN-UP
SUBMITTED BY ARTHUR PINCKNEY ON APRIL 19, 1994

1. How clean is clean? Will the base be cleaned to residential standards, industrial standards or what?

- Every effort will be made to restore the Base to the same environmental quality originally present before the Base existed. The technical terminology for this is to attempt "to clean-up the Base to background conditions." Determining background environmental quality will be difficult because large areas of the Base are dredged material.

  If, and only if, it becomes apparent that background environmental quality cannot be determined, then the Base will be cleaned up to a level that will pose no significant risk to humans or the environment. The amount and type of clean-up will not be determined by anticipated future land use.

2. What opportunity will the public have to review the proposed cleanup plan?

- The BRAC cleanup plan (BCP) is a management tool for maintaining status, schedules, strategies and budget information pertaining to environmental restoration of the Naval Base. At present the BCP is at the Under Secretary of Defense (USD) for review and approval. After approval by USD, the BCP will be updated with the latest status, and information and copies will be placed in the public repositories for access and review by the general public. The BCP was distributed to each RAB member for review and comment, and to allow the RAB members to see first hand the strategy and processes necessary to make base property available for public use.

3. How does the Navy's environmental impact statement being prepared relate to the BRAC cleanup plan?

- The Environmental Impact Statement (EIS) is a requirement of the National Environmental Policy Act (NEPA) which was signed into law in 1970. NEPA requires federal agencies to incorporate environmental consideration in their planning and decision making through a systematic approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major actions significantly affecting the environment such as the Naval Base closure and its property reuse. This assessment is called an Environmental Impact Statement (EIS) and is being prepared for the Naval Base by Southern Division Naval Facilities Engineering

Command. The EIS is required to be completed within twelve months after an approved community reuse plan is developed and will be submitted to the Chief of Naval Operations for evaluation for any significant impact. The BCP as stated above is a management tool used by the BRAC Cleanup Team (BCT) to coordinate all aspects of the environmental cleanup process. The EIS is one part of the BCP process.

4. When in May will the Environmental Baseline Survey be completed? How will the public get to see it?

- The draft Environmental Baseline Survey (EBS) is being reviewed by the Navy. The (EBS) is a snapshot of the environmental condition of property developed during the base fence-to-fence survey conducted earlier this year. It is required to be submitted to the South Carolina Department of Health and Environmental Controls (SCDHEC) by December of this year to identify Clean Parcels which are available for deed transfer to the public. No decision has been made as of yet on how the EBS will be made available to the general public.

5. What is the previous experience of Ensafe/Allen & Hoshall (the firm firm hired to prepare the Cleanup Plan and the Environmental Impact Statement)?

- Environmental & Safety Designs, Inc. (Ensafe) is an environmental consulting firm founded in Memphis, Tennessee in 1980 with the goal of providing responsive consulting services in the areas of hazardous waste management, hazardous substance remediation, hazardous materials safety and transportation, and environmental management. Ensafe has one of the largest staffs of environmental specialist in the Mid-south, including more than 50 geologists, environmental engineers, chemists, safety specialists, risk assessors, community relations experts and environmental scientists. Ensafe's work includes environmental management services with emphasis on compliance issues at Department of Defense installations.

6. Is it possible or likely that any of the contaminated areas of the base will qualify as Superfund sites?

- The Environmental Protection Agency (EPA) reserves the right to add any area to the National Priorities List (NPL) as a Superfund site anytime new information becomes available which justifies such action. This is always a possibility at any hazardous waste site in the United States.

  EPA has reviewed all currently available information and determined that there is currently no justification for adding a site at Naval Base Charleston to the NPL as a Superfund site. Based on currently available information, we do not expect that subsequent investigation will justify such action.

7. How will federal agencies use the base if it has not been cleaned up yet?

- There is no requirement for property to be uncontaminated or cleaned prior to transfer to or used by federal agencies. It is the policy of the Navy to provide the condition of the property to the receiving federal agency prior to the transfer in the form of a property specific EBS. All property will be investigated and cleaned up on the base whether it will be used by another federal agency or not.

8. How many of the 153 underground storage tanks are leaking?

- The total number of underground storage tanks (UST) on the base has not been fully determined. During the base investigation a complete inventory of USTs is being developed. All leaking USTs will be removed and remedial action taken to respond to any releases to the environment.

9. The BRAC Cleanup Plan says that the Environmental Baseline Study was conducted "under extreme constraints of time and accessibility" (p. 3-15). What does this mean exactly and how accurate can we consider it to be given this fact?

- The Environmental Baseline Survey (EBS) is one part of the President's "Fast Track" turnover of base property for community economic redevelopment. To expedite this process the Secretary of Defense established a time table for development of plans for environmental cleanup of the base. Ensafe/Allen & Hoshall was given four months to perform the fence-to-fence survey including mobilization and research. The EBS was developed from the information obtained by the survey which included review of all available records and interviews with past and present employees. It is a compilation of the best available information and is being utilized only for making initial determination of clean property for immediate availabilty to transfer by deed to the local community.

10. Are there any citizens representing environmental groups or citizens with environmental experience on the Restoration Advisory Board? If not, why not?

- The Restoration Advisory Board (RAB) is intended to bring together members who reflect the diverse interests within the local community, enabling the early and continued two-way flow of information, concerns, values, and needs between the affected community, Navy and environmental regulating agencies. Being a member of an environmental group or having an environmental background was not a prerequisite for selection as a community representative to the RAB. Invitation to apply for membership was extended to all groups and community members. Selection was provided by a non-biased group with emphasis on the diverse

interest within the local community. Several community members did identify on their applications that they have some environmental experience which will be an asset to the RAB.

11. The BRAC Cleanup Plan says "minimal investigation and sampling has been done at the base" (p. 3-31), and so the majority of the base remains unevaluated for contamination. What is being done to evaluate these areas?

- SOUTHDIV has a contract with Ensafe/Allen & Hoshall to prepare a RCRA Facility Investigation (RFI) workplan which will be submitted to EPA and SCDHEC for approval. The RFI provides all requirements for investigation, sampling and analysis of the Naval Base to determine the types and concentrations of contamination present in the environment, how widespread the contamination may be, how fast the contamination may be migrating through the environment, and what adverse impact or threat the contamination poses to human health and the environment. The base has been divided into zones to provide manageable areas for the investigation. These zones and the strategies to be used are detailed in Section 4 of the BCP. The RAB and BEST committee reuse plan will be used to determine the priorities in which the zones will be investigated.

12. Given the high water table, how is the possibility of groundwater contamination being addressed?

- The RFI will provide the detailed investigative requirements for identifying contamination. This will include soil samples as well as water samples. If groundwater is found to be contaminated, it will be addressed. Groundwater monitoring wells will be used for water sampling and long term monitoring to ensure implemented corrective measures are working satifactorily.

13. From the BRAC Cleanup Plan, it looks like there is a lot of asbestos and PCB contamination. Does this represent a serious problem? How will it be cleaned up?

- Although asbestos does exist on the base and there is a likelihood that some PCB contamination will be found, neither are considered serious problems. Asbestos surveys have been previously performed on the Naval Base. Friable asbestos which poses health concerns is being abated as it is identified. Any other asbestos will be evaluated to determine if it is accessible/friable. If it is the Navy will take the appropriate action for abatement prior to transfer. The existence of asbestos that is not accessible/friable will be disclosed to the property receiver. PCB contamination will be investigated during the RFI for each zone and the appropriate remedial action taken if contamination is found.

14. Will "Zone E" as listed in the BRAC Clean Up Plan be cleaned

up first because it is the most contaminated and offers the greatest potential for job creation?

- The selection of priorities for zone investigation considered several factors including the concern for environmental contamination and the potential for reuse. Unless other reasons prevailed, priorities for zone investigation have been based on actual or potential reuse. The existing sequence does not preclude a change in priorities if a reason to do so is identified. However, once the investigation has been initiated in a zone it is planned to be completed prior to leaving the zone. The current strategy is to use two teams to conduct the investigation activities to allow at least two zones to be investigated in parallel. Identification of investigative priorities will be subject for review by the RAB.

15. Is there a way to produce documents for the public that are summaries of the most important information in language that lay people can understand?

- The BCT plans to issue "Fact Sheets" that can be readliy understood by the general public. Unfortunately the environmental world is filled with legal and technical terminology, and acronyms. The "Fact Sheets" will be produced in lay language to the maximum extent possible while maintaining the needed meaning for correct interpretation. The BCT will request the RAB to assist in development and providing comments on the "Fact Sheets" prior to them being issued. The BCT is also preparing a briefing package concerning BRAC and the environmental cleanup process that will be suitable for presenting to local interest groups in the community. This briefing will be presented at the next RAB and members will be requested to provide comments on its content. The BCT is open to other suggestions on information distribution to the general public.

16. Will the Environmental Impact Public Meetings be held the week of April 25?

- The EIS public meetings were postponed to the week of May 9 to coincide with the BEST committee consultant briefings. The schedule for these meetings will be provided at the RAB meeting on May 10.

MAY 9, 1994

RAB FAMILIARIZATION

COMPLETE

RAB Charter

Draft Navy Guidance on RAB

Addresses of Members

BEST Handout

Acronyms/Overview of Regulations

BRAC Cleanup Plan (BCP)

Non-CIA Tour

CIA Tour

RCRA Organization Manual

NOT ACCOMPLISHED

BEST Mission Brief

Historical Buildings Brief

EPA - Groundwater Brief

Biographical Information - RAB Members

Finding of Suitability for Lease (FOSL)

RCRA Facility Investigation (RFI) Work Plan

May 10, 1994

RESTORATION ADVISORY BOARD MEETING AGENDA

A. Comments on the minutes of last meeting

B. Additional comments on Base Cleanup Plan

C. RAB Critique of "Community Presentation" prepared by BRAC Cleanup Team

D. Responses to Questions from Mr. Pinckney

E. Remarks by Ms. Michelle Glenn, EPA Region 4 BRAC Team Leader, on BRAC Cleanup efforts Nationwide

F. Collect RAB Member biographical info sheets

G. General Comments/Announcements

H. Adjourn

Next Meeting will be Tuesday June 14, 1994 at the Cooper River Recreation Center, Naval Base Charleston. Time of day for meeting to be decided.

COMMANDER, NAVAL BASE, CHARLESTON

RESTORATION ADVISORY BOARD (RAB)
Minutes of June 14 1994

1. **Call to Order**: The meeting was called to order by CAPT Jim Augustin, Co-Chairperson.

2. **Introduction of Visitors**:

Wagnus Prioleau	-	Charleston Naval Shipyard
Jim McNeil	-	Charleston Naval Shipyard
Jim Beltz	-	Charleston Naval Shipyard, Public Affairs
Sam Weatherford	-	Environmental and Safety Design Inc.
Darrel DeHaven	-	Naval Reactor Representative Office
Billy Walker	-	W. C. Wilbur Real Estate
Barry Lewis	-	Naval Weapons Station
M. A. Hunt	-	Southern Division Naval Facilities Command
Brad Schwartzman	-	Southern Division Naval Facilities
J. L. Moore, CDR,	-	Base Transition Officer
David Walton	-	S.C. Department of Health and Environmental Control
Joe Bowers	-	S.C. Department of Health and Environmental Control
Amos Webb	-	Charleston Naval Shipyard
Ledlie Bell	-	BEST Representative

3. **Comments on Minutes**: There were no comments and the minutes to the May 10, 1994 meeting were accepted.

CAPT Jim Augustin commented that the RAB minutes will be placed in repositories for public access. The repositories are at the North Charleston County Library on Dorchester Road and Building 76, Environmental Office, outside of the Reynolds Avenue gate.

4. **Status of Reuse Plan, Status of Shipyard Worker Performance of Environmental Work**:

CAPT Jim Augustin commented that the Reuse Plan, that forms the basis of the Reuse Environmental Impact statement, was presented to Mr. William Cassidy, Deputy Assistant Secretary of the Navy for Conversion and Redevelopment. Copies of the Reuse Plan will be provided to all RAB members.

CAPT Jim Augustin commented on Mr. Jim Conner's question at the last meeting about the hiring of shipyard workers and local contractors for environmental cleanup. Mrs. Pat Franklin summarized both the contractual aspects of cleanup as well as new

development agreements between the Naval Facilities Engineering Command (NAVFAC), who will be responsible for cleanup, and the Naval Sea Systems Command (NAVSEA). She stated that shipyard workers will be used to do process cleanup such as cleaning out tanks, etc. Mr. Bobby Dearhart stated that the Shipyard is training a large number of workers to do environmental work. This effort involves Clemson, Charleston Southern, and the Medical University of South Carolina. The agreement between NAVSEA and NAVFAC Headquarters is to use shipyard workers, if they meet qualifications, and if it can be done economically. The agreements have not been finalized as of yet.

5. **Plans for Radioactivity Brief**:

Mr. Jim McNeil, Director of Radiological Control at the Shipyard presented a comprehensive briefing on radioactivity and work that will go on to release the Shipyard from Radiological controls. The overview included detection levels, surveys, documentation, and inolvement of regulatory agencies. Mr. Wagnus Prioleau, a Radiological Instructor, at the Shipyard demonstrated the IM247 (Geiger Counter) and explained its use in detecting radioactivity.

It was noted by Ms. Ann Ragan that the shipment on radioactive materials has rigorous safeguards. Packaging goes through a barrage of tests for impact, temperature tolerance, leakage, etc.

There was an overall discussion on the shipment of radioactive materials, testing buildings walls, etc., and groundwater. It was noted that liquids involved with nuclear work are recycled whenever possible and that shipments of radioactive material must meet all of the Department of Transportation's requirements.

Mr. Jim Conner asked to what extent buildings will be damaged to check for radioactivity. Mr. Jim McNeil stated that the walls are marked with about three foot grids and small material samples are taken from those areas. In most cases, the holes will not be refilled.

Mr. Jim McNeil stated that the ventilation of the Buildings 222 and 79A is monitored for radioactivity very closely. He noted that shoreline surveys at low tide, river sediment samples, and water samples are done on a regular basis. These surveys show no radioactivity.

6. **Comments on the RCRA Facility Investigation Workplan/Project Management Plan**: CAPT Augustin reminded members that Mr. Doyle Brittain is looking for comments on the workplan and has extended turn in of comments until June 24.

Mr. Art Pinckney raised concern about dewatering systems in of Drydocks 1, 2, & 5. Mr. Conner stated that all docks can discharge individually. He added that Drydocks 1 & 2 can be discharged together, but that Drydock 5 is a separate system.

CAPT Augustin asked if there were any comments or clarification on the answers to Mr. Art Pinckney's questions that were given to all at the last meeting. There were no further questions.

CAPT Augustin asked the members to comment on ways to educate the general community. Suggestions were to make presentations to local business meetings, PTA meetings, groups, etc., and involve newspaper and television (Talk Back).

The next large environmental meeting will be in conjunction with the Environmental Impact Statement (EIS) draft which should be finished in September. A public hearing will be held on its contents .

Mr. Van Robinson reported that the North Charleston Business Association meeting that he, Mr. Doyle Brittain, and Mr. Bobby Dearhart attended was well received. He said these meetings are important, and we need to become more active in getting information to the community.

Mr. Lou Mintz suggested that we send written invitations to attend the RAB meetings. Mr. Van Robinson suggested the members submit names and we will invite them to meetings.

7. **Implementability of the Reuse Plan**: CAPT Jim Augustin stated that BEST and the BRAC Cleanup Team have environmental concerns about the Reuse Plan. BEST is eager for the Navy to characterize at the earliest possible time the nature of contamination and required cleanup at the southern end of base. This information is needed by the State Ports Authority which has not yet made a decision to join with BEST and the Redevelopment Authority in putting the State Ports Authority 20-25 year development of a multi-million dollar container port operation at the southern end of the base. The first zone to be sampled covers much of the area of the southern end of the base and should yield needed data with 9 months. Adjacent areas will be sampled on a spot basis to completely characterize the site.

CAPT Jim Augustin described Reuse alternatives, known dumpsites, and potential conflicts between cleanup and pile-supported construction.

CAPT Augustin asked RAB members to stop at the sign-in desk and pick up the RAB biographical information sheet and the updated list of addresses of all members.

8. **TIME AND LOCATION FOR THE NEXT MEETING**: From 7:00 p.m. to 9:00 p.m. on July 12 at the Cooper River Center. (NOTE: The location was subsequently changed to the Charleston Marriott, Salon A, 4770 Marriott Drive, North Charleston at I-26 and Montague Avenue.)

9. **ADJOURNMENT**. With no further business to discuss, the meeting was adjourned.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of July 12, 1994

1. Call to Order. The meeting was called to order by Mr. Van Robinson, Co-Chairperson.

2. Introduction of the RAB. Van Robinson explained that the RAB is a group of 24 people from the Community as well as from local agencies and the Navy. The following members of the RAB introduced themselves:

Captain Jim Augustin, Co-Chair	Mr. Donald Harbert
Mr. Van D. Robinson, Co-Chair	Ms. Wannetta Mallette
Mrs. Pat Franklin	Ms. Jane Settle
Mr. Steve Best	Mr. Robert Mikell
Mr. Doyle Brittain	Mr. Louis Mintz
Mr. James Conner	Mr. Arthur Pinckney
Ms. Diane Duncan	Mr. Oliver Addison
Ms. Susan Floyd	Commander Ray Downs
Mr. Wilburn Gilliard	Mr. Bobby Dearhart

3. Introduction of Visitors.

Mr. Milton Lombard	TPA
Mr. Trey Brown	NOAA
Captain William Nold	CNSY
Mr. Jim McNeil	CNSY
Mr. Tony Hunt	Southern Division-NAVFAC
Ms. Carol Conner	Interested Resident
Mr. Henry Brown	Interested Resident
Mr. Rick DeVoe	SC Sea Grant
Lieutenant Donna Murphy	Public Affairs Officer, COMNAVBASE
Commander J. Moore	Base Transition Coordinator, COMNAVBASE
Mr. Clark Hobbie	Interested Resident
Mr. Robert Shelor	Interested Resident
Mr. James Speakman	EnSafe, Allen & Hoshall
Mr. Jeff Bennett	EnSafe, Allen & Hoshall
Mr. Dave Backus	EnSafe, Allen & Hoshall
Mr. Todd Haverkost	Ensafe, Allen & Hoshall
Mr. Brad Schwartzman	Southern Division-NAVFAC
Mr. James Young	CNSY (Retired)
Mr. Robert Knight	CNSY (Retired)
Ms. Thuane Fielding	Southern Division-NAVFAC
Mr. Austin Hilligas	B.E.S.T.
Mr. Ponce DeJons	Interested Resident

4. Comments on Minutes. Arthur Pinckney noted an omission of a question regarding the effects of radioactive materials on the marine life in the Cooper River and what the symptoms would be of over exposure to radiation. Van Robinson said that this would be included in the minutes from this meeting. (NOTE: Arthur Pinckney's questions are addressed in paragraph 11). The minutes were accepted.

5. Status of the Re-Use Plan, Clean-up Plan and Shipyard Performance of Environmental Work.

Captain Augustin briefed the status of the Reuse Plan a copy of which has been provided to RAB Members. The Reuse Plan was presented to the Navy in June 1994 and forms the basis for an Environmental Impact Statement (EIS) which is a property disposal document.

Pat Franklin addressed the Cleanup Plan. It is at DOD and the Navy has not received final approval. It is expected that approval will be received in late July/early August after the Base Closure Team Seminar is held in Charleston.

Captain Augustin addressed the issue of Shipyard workers performing environmental clean-up work. A joint agreement between Naval Sea Systems Command and the Naval Facilities Engineering Command has been signed. It basically says that Naval Facilities will screen all appropriate environmental clean-up tasks and "contract" with appropriate Shipyards to accomplish the tasks. The commitment is to look at the tasks for cost effectiveness, timeliness and the qualifications of the workers such that Shipyard workers can actually be employed to do tasks that are the responsibility of Southern Division, Naval Facilities Engineering Command. A copy of the agreement was made available for viewing by interested parties.

Bobby Dearhart added that the agreement also covered the possibility of Shipyard workers doing some of the remedial work even after closure. He stated that extensive training is going on at the Shipyard now to help engineers, technicians and mechanics to qualify for employment. Meetings will be held with Southern Division, Naval Facilities Engineering Command to find out what kind of organization will have to be formed to keep this effort on-going to the point that Shipyard workers could be utilized for this task.

Lou Mintz acknowledged that this environmental work would require some training and wanted to know if the Federal government would provide the training or if it would be at workers' expense in the private sector. He also wanted to know that if the Federal government did provide the training, would it preclude the workers from accepting other positions in the area because of layoff delays.

Captain Augustin said that training would probably be provided in all of the ways mentioned and that the Navy's goal is to take care of its people. The object of the training is to provide jobs for as long as possible, but not to the detriment of finding permanent employment. He deferred to Captain Nold of the Shipyard for specifics. Captain Nold said that the training would be given to as many as possible. The training will not prevent anyone from taking a job elsewhere nor will it ensure anyone that they will stay employed. What it will do is provide qualified personnel to perform this work should they be able to contract with Southern Division.

6. Report on Atlanta Seminar on RABs.

Captain Augustin gave a brief report on the Atlanta Seminar. Charleston was well-represented with Van Robinson and Ann Ragan among the speakers. Charleston is much farther along in the RAB process than other communities that were represented. Policy, communications and shared goals and objectives were the focus. The Atlanta seminar stressed evening meetings off base and the effectiveness of informal discussion opportunities for interested citizens to speak with RAB members. Captain Augustin asked that each RAB member find out the community concerns and then bring those concerns to the next meeting. Shared goals will be discussed at future meetings. As an example of goal statements, Captain Augustin used "When the process is complete, the community will say, ' The Navy cleaned up the Base successfully,' and 'During the whole process, I felt that I was well informed and able to provide feedback." The RAB Seminar motivated the attendees to "get the word out" and "get comments in" in the most effective way possible.

A Workshop Guidebook from the Seminar was made available for visitors review.

7. National Oceanographic and Atmospheric Administration (NOAA) Brief.

Trey Brown is the Federal Facilities in the Coastal Resources Coordinator for NOAAin Region IV. He gave an overview of the responsibilities of NOAA in relation to the Naval Base closure. NOAA works with all of the other agencies as a Co-Trustee to ensure that the best clean-up/restoration actions are taken in a timely manner.

Susan Floyd commented that she understood that expeditious cleanup is important but asked that the primary goal of conservation not be overlooked.

Bobby Dearhart assured everyone that all groups (EPA, State, DOD) were working together in parallel which is one of the purposes of the RAB.

8. U.S. Department of the Interior Brief.
Diane Duncan of US Fish and Wildlife Service spoke on her responsibilities as Natural Resources Trustee. Her Bureau is authorized to seek compensation or restoration for iinjury to natural resources. It is also responsible for developing the Natural Resource Damage Assessment Regulations which is the process through which Resource Trustees determine injury and then determine damages and dollar value. Since the Naval Base is RCRA and not CERCLA, the US Fish and Wildlife Service operates as an outside consultant to the EPA, DOD and DOE in assisting them to develop draft work plans to assess the impact of contamination and identify remedial activities.

Van Robinson commented that it seems the work of this agency would come later in the case of the Naval Base at Charleston. Diane Duncan said that their work had already begun in the form of collecting baseline data and reviewing preliminary work plans in areas where there have been known releases.

Doyle Brittain stressed that the EPA is working closely with all of the Natural Resource Trustees and are encouraging early review of the work plans.

9. South Carolina Department of Natural Resources Brief.

Jane Settle explained that her agency is the S.C. Natural Resource Trustee agency responsible for administering and enforcing laws for the protection of wildlife, fresh water fisheries, marine resources, and other natural resources. The purpose of the agency is to "protect, propagate and promote these species." They are also responsible for protecting unique habitats and endangered species on the State level much like the US Fish and Wildlife does on the Federal level.

Arthur Pinckney asked if any contaminated species had been found in the vicinity of the Naval Base. Jane Settle explained that her agency had not researched this but that the SC Department of Health and Environmental Control has a monitoring program in place where they look at water, sediment and organisms. There is a monitoring station in the Cooper River. She has no negative data from the monitoring. In addition, Diane Duncan from the Department of the Interior indicated that she had no sediment data and that when it becomes available it will be looked at closely because of the food chain involved. Because of the activities at the Naval Base there may be contaminants in the water, but at the present it isn't known if the levelsare high enough to impact the oysters, crabs, etc.

Lou Mintz asked if any testing was ever done to insure that fish consumption by humans was safe. He said he thought oysters were tested routinely since they are bio-accumulators

and if they were safe, then the fish were safe. Jane. Settle said that DHEC would test oysters when a contaminant such as mercury was suspected to be at high levels She pointed out that levels which could affect wildlife and marine life have to be at much higher levels to affect human health. Jim Conner was concerned that only now that the Navy is leaving is more testing going to be done and that none of the Federal and State Agencies has any conclusive knowledge as to whether the waters are contaminated. Diane Duncan said that her agency had responded to several reported spills but did not have resources to investigate suspected contamination.

Van. Robinson asked if the Department of the Interior would get involved in plans for the South end of the Base as far as State Ports Authority actions were concerned. Diane Duncan indicated that they would since permitting would be involved.

Susan Floyd expressed concern that the Navy will be gone in 1996. Diane Duncan assured her that the Navy cannot transfer title to the land until it is cleaned up.

Lou Mintz said it would be reassuring if the regulatory agencies didn't always assume that everything was "dirty" and would have to be cleaned up. He wanted to look at the positive and assume until proved otherwise that just maybe some of the property is clean.

10. RAB Community and Media Relations.

Captain Augustin assured the community members serving on the RAB would not be put in a position of answering to the public. Technical members of the Board can provide answers if the community members feel uncomfortable with a response to the public. Captain Augustin said he was depending on the community members of the RAB to bring information rather than give information.

He said he was eager to get a new Community Relations Plan put together by the RAB to replace the former Technical Review Committee (TRC) plan. The RAB members will need to work with the Clean-up Team and with our contractor, EnSafe, Allen & Hoshall to develop this Plan which will get the word out to the community. Lou Mintz, Arthur Pinckney and Susan Floyd also Wannetta Mallette volunteered to serve on a sub-committee to work on community relations. He mentioned that no media representatives were present this time, but he expected media coverage of meetings in the future.

Captain Augustin said he had talked with Mr. Ron Coward, the head of the new Redevelopment Authority. Mr. Coward indicated that he is eager to understand environmental issues related to reuse. Captain Augustin said that sampling in the area that the State Ports Authority (SPA) is considering will probably start soon so that the SPA can make a decision.

Now that the Redevelopment Committee is organizing, the RAB will have a change of membership. The Redevelopment Committee will replace the B.E.S.T. seat on the RAB.

11. Question and Answer Session:

Van Robinson asked for questions from the visitors.

James Conner - When will testing start at the Southern end of the Base?

Pat Franklin - A meeting had been held with the contractor earlier in the day on this. The Comprehensive Work Plan and the zone specific work plan dealing with sample locations in that area have to be approved before field testing can begin. Testing can start about three weeks after approval. It looks like testing will begin in August.

James Conner - When will testing be done on Shop 31 which Babcock and Willcox want to move into? What about the plating shop where we know cleanup has to be done?

Pat Franklin - We'll be going into three areas very close together and will prioritize where and when sampling should be done based on interest expressed by others wanting the buildings.

James Conner - We need to start testing so we can find out what we need to do.

Bobby Dearhart - We are looking at interim leases, while you are talking about testing and remediation for property transfer. Two different things. We'll have to see how reusers are going to use the facilities.

Pat Franklin - In leasing we have a lot more flexibility than having to finish all the sampling and cleanup work.

Captain Augustin - The timeline for sampling and clean-up is too long for job creation so by necessity we will interim lease. We had a discussion on "what a Finding of Suitability to Lease (FOSL) is" on the agenda tonight, but there won't be time to go into detail. A FOSL is a procedure where we determine if we are hazarding anyone by putting people into these spaces. We will go interim lease for the most rapid job creation. In the long run, we may have to interrupt some of those leases to come back and clean up. Hopefully, there won't be many disruptive cleanups although it's possible and is a risk we must take. Be assured that the Navy will clean up. Southern Division-Naval Facilities Engineering Command will be the caretaker after the Base closes and will have the responsibility for cleanup.

Clark Hobbie - Have clean-up levels been set? What will be the action level?

Doyle Brittain - By action level you mean how clean is clean? We are using Federal guidance for risk assessment. We have the RCRA Facility Investigation Work Plan that we are working on now. Copies have been distributed to RAB members and comments were requested. We got very few comments. I take that to mean everyone agrees but we don't want anyone coming back later on what we should have done. Our goal is to clean up to background and risk-based levels but we need to recognize that might not always be possible.

Clark Hobbie - That means you might accept a certain level for industrial that you would not accept for a golf course or housing.

Trey Brown - That's where risk assessment and risk management come in.

Doyle Brittain - That's right. We are doing the investigation to determine what the risk is now. That will determine how much we need to clean up. Once we clean up, the decision can be made as to what the property can be used for.

Milton Lombard - What clean-up can we do based on the funding level?

Captain Augustin - We are doing our best to identify requirements early. Our funding depends on what Congress appropriates.

Bobby Knight - We've heard a lot tonight about hazards to animals. What about hazards to humans? Shipyard workers have been told that our RAB will be a National prototype. Could we have someone from OSHA or Public Health address possible future medical problems of workers which might be related to lead or asbestos? We have heard that information on testing is being destroyed. Is there any way to track employees?

Captain Augustin - I'd agree that records should be maintained and not be lost because of closure, but focus of RAB is environmental cleanup.

James Young - Will OSHA enforce work safety standards for the contractors? I've seen contractors come in and use improper equipment.

Jim Speakman - OSHA applies all standards to the private sector. Also, EnSafe has its own Health and Safety training and enforcement.

Arthur Pinckney - Can the records issue be followed up?

Captain Augustin - Since the issue is an on going occupational health issue, I recommend the Shipyard address it separately.

Jim McNeil - "The shipyard has a comprehensive environmental monitoring program for radioactivity which shows that shipyard operations have had no significant effect on the marine environment. This program includes shoreline radiation surveys, water samples, river sediment samples and the analysis of crabs and oysters taken from the river. The results are published in an annual Navy report. Copies of this report were furnished to Diane Duncan and Jane Settle after the last meeting. DHEC also independently monitors the Cooper River for radioactivity with the same negative results. EPA has independently performed detailed environmental surveys with the same results. These included sampling drinking water and examining fish and shrimp from the river. The EPA survey showed natural radioactivity and traces of fallout from atmospheric weapons testing as expected, but no radioactivity from shipyard operations. The Navy's work at the shipyard does not lead to overexposure." (After the meeting, Jim McNeil provided more information to Arthur Pinckney on symptoms associated with overexposure to radiation.)

11. Announcement of Next Meeting. The next meeting of the RAB will be from 7-9 p.m. on Tuesday, 9 August at the Marriott.

12. Adjournment. The meeting was adjourned due to the lateness of the hour.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 9 August, 1994

1. Call to Order. The meeting was called to order by Captain Jim Augustin, Co-Chairperson. He asked that members of the RAB and Guests introduce themselves.

2. Introduction of the RAB.

Captain, Jim Augustin, Co-Chair	CDR Ray Downs
Mr. Van Robinson, Co-Chair	Mr. Oliver Addison
Mrs. Pat Franklin	Mr. Doyle Brittain
Mrs. Susan Floyd	Mr. James Conner
Mr. Bobby Dearhart	Mr. Donald Harbert
Mr. Ralph Laney	Ms. Wannetta Mallette
Mr. Wilburn Gilliard	Mr. Lou Mintz
Ms. Ann Ragan	Ms. Jacquelyn White

3. Introduction of Visitors.

Mr. Barry Lester	Wright Padgett & Assoc.
Mr. Keith Johns	EnSafe/Allen & Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Mr. Jay Cornelius	EnSafe/Allen & Hoshall
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Mr. Jeff Bennett	EnSafe/Allen & Hoshall
Mr. Jim McNeil	NAVSHPYD
Mr. Austin Hilligas	BEST Committee
Mr. David Franklin	SOUTHNAVFAC
Mr. Herb Koger	Law Engineering
LT Donna Murphy	COMNAVBASE PAO
Mr. Tony Hunt	SOUTHNAVFAC
CDR Jim Moore	Base Transition Coord., COMNAVBASE
Mr. H. B. Lemon	Wilbur Smith Associates
Mr. Robert R. Shelor	Diversified Industry Consultants
Mrs. Thuane Fielding	SOUTHNAVFAC
LCDR Paul Bosco	SOUTHNAVFAC

4. Administrative Remarks, Comments on Minutes and Shared Goals and Objectives.

Captain Augustin mentioned that Arthur Pinckney could not be in attendance this evening, but had submitted a list of questions which would be answered in writing. He encouraged all RAB members to submit questions. There were no comments on the minutes from the last meeting and they were accepted and will be put into the repository.

A "Shared Goals and Objectives" sheet was passed out (copy attached.) Members were asked for feedback on any goals that they think the RAB should have to improve communication among the RAB as to what expectations are. They will be compiled and shared with members.

5. Update on RFI Workplan and Zone Specific Workplan for Zone "H".

Tony Hunt is a BRAC Clean-up Project Team Member for the Base. He gave an update on the Workplan. The Workplan is divided into the comprehensive and the individual zone workplans. Tony used a map showing the different zones. The comprehensive plan has been verbally approved by EPA and written approval is expected soon. Discussions on Zone H (Southern portion of the Base) were completed today. Results of these discussions as well as comments from SC DHEC will be incorporated into the Workplan and submitted to EPA next week.

Field activity began yesterday in Zone H. Soil borings are being taken now and the driller should be on site by the end of August at which time monitoring wells will be installed and groundwater samples taken.

Zone I Workplan development is proceeding and will complete all workplans for the Southern end of the Base. The draft final version should be submitted to EPA next week and discussions will begin on the comments received from regulators, natural resources trustees and the Navy. EPA approval is expected the first week in September. Zone C workplan was included in today's discussion with similar submittal, comment and approval periods expected.

Field investigation will focus on sites that are significant in terms of information needed by SPA. The sites are being chosen based on information that indicates that hazardous waste may have been either stored or released. These sites are listed in the Project Management Plan.

Soil boring depth is at two intervals in unsaturated soil - from the surface to one foot and three to five feet given a depth to the water table of five feet.

The level of the water table is monitored in developing the hydraulic gradient and groundwater flow direction. The soil borings and groundwater monitoring is being performed by EnSafe/Allen & Hoshall under the clean contract with the Navy.

Analytical data on the soil and groundwater samples will be available about 30 days after the samples are generated. The site data will then be accumulated and after about 60 days enough data will be available for judgments to be made. Validated data will not be available until mid 1995. It was suggested that a sub-group from the RAB who volunteered to help with the community Relations Plan decide how the information and progress will be presented - possibly in the form of an Executive Summary.

The landfill is a key area in Zone H where data needs to be collected and judgments made soon to support the SPA decision. The BEST Committee made a specific request to Assistant Secretary of the Navy Cassidy for early sampling. We intend to focus on this site as early as possible to get this information to them. The data already collected from existing wells has been summarized and can be presented in the same format that the RAB sub-group develops.

It was pointed out by Bobby Dearhart that the SPA does not want raw data. They want to know what we come up with in a usable form. Mainly they want to know if there will be a cap on the landfill and whether they will be able to do anything they want to or if they will be restricted.

Lou Mintz suggested a sitrep (situation report) that everyone could read and understand. It should give a little history on each site, what we found and what the prognosis is for future development and a date for completion.

6. Review of Potential Reusers of the Base.

Using a color-coded map, Captain Augustin gave a summary of potential users of the Base. He said that only a few of the reuses are "cast in concrete." These are the properties for the State Department relocation of accounting functions, and the National Oceanographic and Atmospheric Administration. The Defense Finance and Accounting Center has also been announced. These were placed into legislation by Senator Hollings.

The map shows a considerable portion of the property which may be developed by the State Ports Authority (SPA). The SPA worked with the BEST to develop the reuse map, but has not yet made the decision to build what is shown on the map as a $1 billion investment over a 20-25 year period. Decision is expected by next Spring.

They need to know what contamination is in the ground and we've just started to sample.

Also, the Navy at the request of BEST has made a tentative agreement to house the National Civilian Community Corps.

He called attention to the facilities marked for McKinney Act turnover. These properties will actually be deeded to McKinney Act providers. The McKinney Act providers are interested in the warehouses, the grounds maintenance areas, ServMart, Steamers Club, the Medical Facility, some of the housing and a number of other service facilities and barracks buildings. These properties will be used for community services for the homeless. He explained that although the McKinney Act is very powerful, the McKinney Act Task Force doesn't want to take the land at the expense of creating jobs. They have been and will continue working with the Navy, BEST and the Redevelopment Authority to come up with a good plan.

He pointed out that the Redevelopment Authority and not the Navy is in charge of reuse of the Navy Facilities. They will decide who goes where and will be the "landlord." They will be receiving briefings next week from the Navy on many issues.

He showed some properties marked for about 17 DOD and Navy Commands who want to remain on the Base after closure as leaseholders. These DOD/Navy Commands represent about 1,000 jobs. The Redevelopment Authority may let them stay in the spaces they now occupy or may consolidate them into a single administrative type facility or the office park which has been planned.

BEST has recommended a large portion of the Shipyard property for the Charleston Marine Manufacturing Corporation to come in and do ship repair and other kinds of industrial functions. Also, the Rapid Access of Manufactured Parts (RAMP) Facility and the Machine Shop are recommended for Babcock and Wilcox. Building 199 is scheduled to be leased to Charleston County for the Job Training Partnership Act. The Module Maintenance Facility will leased by to NISE East.

Now that the Redevelopment Authority is in place, it is anticipated that other commercial firms will express interest in certain facilities. Some cleanup will probably have to occur after the properties are interim leased. This may cause some disruption, but it is a risk that must be taken. Many jobs could be lost to the community if properties are not leased or turned over until after complete cleanup has occurred. "Hot turnover" is a must to create and retain jobs. This will become vital next Summer as the ships' crews and families disappear.

Captain Augustin then asked for RAB member questions.

Ralph Laney wanted to know whether NOAA would have to relocate if the SPA decided to develop the South end of tbe Base. Captain Augustin said that the SPA has authority in legislation to relocate them, but would have to pay for the relocation.

Jacquelyn White wanted a clarification of what the MMF was. It is the Module Maintenance Facility where electronic models are brought in and repaired. This is a function that NISE East will continue and the MMF will be an active facility.

Van Robinson asked the Captain to comment on the utilities. He wanted to know if we have to wait on the SPA's decision on whether or not they will be taking the South End of the Base before deciding what to do about the utilities systems. The Navy is eager to turn over the utilities systems to as soon as possible next month. Since the Redevelopment Authority will be in charge of the entire site, they need to be briefed on the capabilities of the present system which will have to be modified. They have identified roughly $10-20 million worth of modifications to support the development proposed in the Reuse Plan. The Redevelopment Authority needs to decide how they want to run the utilities.

A lengthy exchange took place among Susan Floyd, Van Robinson, Jim Conner and the Captain addressing the steam system. Captain Augustin explained that the Navy buys steam from Foster-Wheeler Plant run by Charleston County and there is a central distribution which is for the ships to go "cold iron" when they shut down their plants, as well as for heating of the Base. The planners for BEST say it is not economical to continue to try to use that system. It's not energy efficient and they propose that individual buildings should go to their own individual heating systems and the only steam that would be needed would be a feed to some of the industrial uses in the Shipyard. In the meantime, the Navy has a contract with Foster-Wheeler which is good for the next 15 years where we have guaranteed them that we will buy about $3 million per year. A total responsibility of about $50-$52 million taxpayer money is owed under this agreement. The Navy is eager to see people wanting to come in to run breweries or plywood plants or any type plant that could use this steam and let the Navy out from under this agreement.

Jim Conner pointed out that if the Foster-Wheeler Plant wants to sell the Navy's steam to some one else and get double payment there would be nothing the Navy could do about it. He also questioned whether the Navy would still be liable for the $3 million per year if Foster-Wheeler decided not to produce any steam because there were no buyers. Jim Conner brought up the fact that the buildings have

always accounted for more than 50% of the steam use. Captain Augustin reiterated that decisions on heating facilities is a responsibility of the Redevelopment Authority.

Van Robinson wanted to know what was going to happen if the SPA decided not to build. The Redevelopment Authority's job is immense. We don't know today. The Reuse Plan relies heavily on a SPA decision to develop the site. There is no other single user or group of users known today that this land is very valuable to. It is most valuable to SPA for the wharf and containers. He pointed out that the Navy piers are not suitable for commercial use.

On anotber subject Wannetta Mallette wanted to know if the Navy had looked at restructuring the base transit system routes based on the fact that the McKinney Act people were coming in and their "customers" would be dependent on public transportation. Austin Hilligas of the BEST Committee said that this had been looked at.

7. Details of Environmental Sampling - What to Expect.

Doyle Brittain of EPA Region IV Atlanta first recognized that all of the work that has been done and will be done in the future is a team effort. He mentioned Ann Ragan (SC DHEC), Bobby Dearhart (CNSY), Pat Franklin, Tony Hunt and Thuane Fielding (SOUTHDIV), and Jim Speakman and Todd Havercost with EnSafe.

In June 1990, a Resource Conservation and Recovery Act (RCRA) Permit was issued which allows the Naval Base to manage hazardous wastes. The permit identified 24 sites. The Base has been trying to do investigations to clean up contaminated areas, but as with all government programs, priorities had to be set and the Charleston Naval Base was not the most important in the scheme of things. Superfund sites had a higher priority with DOD, EPA and SC DHEC than RCRA sites so RCRA sites were dealt with on an "as time and money are available basis." In 1993, after three years no RCRA Facility Investigation (RFI) for the Naval Base Workplan had been agreed on among the regulatory agencies and the Base.

Then, in July 1993, BRAC III put Charleston on the Closure List and it was designated as a model for base closure. Priorities changed. Charleston Naval Base became top priority and other RCRA sites became third priority. I and the people I mentioned earlier were thrown together to make it happen in a hurry. And a lot has happened in the past year.

A RCRA Facility Assessment (RFA) has been conducted. That is, we have walked the Base, seen everything and talked to everyone that we possibly could to identify all of the possible places where hazardous wastes have been managed or disposed. We now have about 400 possible hazardous waste sites. We want to know every possible place so a

thorough investigation can be done and there will be no surprises down the road. Only then can we do a thorough investigation. EPA is working with the state to approve the RFA for these sites.

The contractor has done an Environmental Baseline Survey (EBS). This involved looking all over the Base and talking to people to try to identify where all types of hazardous materials have been handled or disposed of such as lead based paint, asbestos, petroleum tanks and PCBs as well as the hazardous wastes. We are getting ready to update the EBS.

A BRAC Cleanup Plan (BCP) has been developed to identify how the investigation and cleanup will be done. We are getting ready to update this BCP.

The RFI Workplan to do the hazardous waste investigations is in the EPA Office in Atlanta being approved.

A lot of what we have learned this year is how our team can work together to get the job done in the most efficient, effective and expedient way possible. We (EPA, State and Navy) get together and fuss and fight and argue and then when we come out of the room we are all in agreement. We have found that we can do this if we get involved in the decision making process rather than waiting until later and playing "Monday Morning Quarterback." This way we can all claim ownership of the assets as well as the liabilities. We have done a lot of things right this year and we feel good about it. We expect to make a lot of progress this next year too.

Last Thursday we met in Atlanta to discuss the Zone H RFI Workplan. It was one of those "Prayer Meeting" type sessions I just mentioned. When we left that meeting we were all in agreement on the Plan. The field investigation began yesterday, the contractor is out in the field collecting samples. So, we have verbal approval on the Zone H Workplan and will soon have written approval.

I want to tell you what we are doing and what you can expect.

The investigation will be done in two parts. First we will be doing a risk assessment to see if contaminants are present, what effect they are having on the environment and human health. We are going to be looking at the birds and the bees and the flowers and the trees. We will be working with the Natural Resource Trustees but we are going to be looking at the human aspect also. Once we know what risk any contaminate is presenting to the environment and humans, we can determine how much cleanup we will need to do to make it safe. We are also doing source characterization; that is, looking at those areas where we know we have contamination. We will he looking at the contamination in the soil, groundwater, surface water, soil-gas and ambient air. To

do these things, we are going to be looking in open areas, around buildings, underneath buildings and in buildings where there are people. We just want to make sure we have not overlooked a hazardous waste site that is going to jump up and bite us in the future.

You can expect to see the workers dressed in funny white clothes with funny looking and funny sounding instruments walking around all over the Base. This is standard procedure and we have no reason to believe there is any cause for alarm or grave concern. It is all just part of the investigation.

Now that we have worked out the details of the Comprehensive RFI Workplan and the Zone H RFI Workplan, we expect to see a lot more workplans approved. We can also expect to see the contractor working in a lot more zones. We are moving out and you are beginning to see the results of a year of hard work!

Doyle then asked for questions.

Captain Augustin asked for a characterization in a physical sense of everything which will be sampled.

Take the Southern end of the Base as an example, originally that was all at water level and it has been filled in with dirt from other places, jeeps, office trash and everything you can think of. When it got full, it would be burned and would sink down to the bottom of the water table. It's solid land now and the contractor will be sampling down to the bottom of the water table because some things are what we call sinkers. If anything is found there, then they will go further down. They are going to be looking at the groundwater, soil, gas in the soil, surface water and air. Those are all of the exposure pathways that will be looked at.

Wannetta Mallette wanted to know whose guidelines were being used. EPA has the lead and is working with the Natural Resource Trustees to assure their concerns are addressed. Very soon the State will get Hazardous Solid Waste Act authorization (HSWA) and will get the lead on it. This means that the State of SC will have authority to administer all of the hazardous waste regulations.

Jacquelyn White asked where samples (laboratory tests) were being analyzed and how the samples can be transported. Doyle explained that there are five laboratories that samples are being sent. Jim Speakman of EnSafe said that samples are being sent all over the country because of the quantity, the nearest one being in Savannah. Susan Floyd was concerned about keeping the money in South
Carolina. Local labs do not have the capacity to do our work plus their normal business. About transporting samples, Doyle explained that there are EPA and DOT regulations which have to be followed.

Susan Floyd wanted to know whether there was any data from the previous four years of sampling to compare with what is going on now. Doyle said Pat Franklin was working on that and will find a way to present it in summary format. He said he would also supply her with the RFA of all 400 sites.

Jim Conner asked if the artesian wells were going to be tested. The Cleanup Team was not aware of artesian wells. Jim knows of several and will mark them on the map so that they can be located and sampled.

8. Review of Zone Priorities-Recommendations for Zones I and E.

Bobby Dearhart (BRAC Environmental Coordinator for Naval Base) explained that when the BRAC Cleanup Plan was developed the Base was split into 11 zones. One of the reasons was so that the areas would be manageable during the investigations. The flexibility to change priorities was built in because of reuse. Using our crystal balls, we decided that the original priorities were Zones H, D, and E (State Dept., Outside of Fence where there is warehousing and Shipyard area). A couple of months ago priorities changed because Zone C (major administrative area) was looked at as having a high potential for jobs in reuse. It was agreed by the RAB that priorities be changed to H, C and E instead of H, D and E which was the original.

Shortly after the last RAB meeting, it became clear that it was important to start looking at the lower end of the Base to support the SPA. We didn't have time to present it to the RAB, but the BCT agreed that Zone I would be a higher priority. We need to complete Zones H and I to present to the SPA so they can determine if they are going to put their container terminal down there.

At the present time our priorities are Zone H where we have started sampling, Zones C and I are in the approval process and we expect to be out in the field sampling probably in mid-September. For Zone E, we are going to have a "scoping" process the last week in August where we are going to walk through every site and come up with a strategy to implement the investigation and the sampling.

Captain Augustin asked that members share their views. The plan is flexible and the Project Team wants to hear comments from the RAB if any redirection is thought to be needed.

Bobby assured the RAB that changing of priorities will not slow down leasing for reuse.

Jim Conner wanted to know why the Navy was "catering" to the SPA and testing property they are interested in first, since they aren't going to offer any jobs to the community for about 15 years.

Captain Augustin said that job creation in the new term isn't constrained by RCRA cleanup. The Navy is responding to the request of the BEST representing the community's ideas as to how this site should be used. The request was phrased to Mr. Cassidy, Assistant Secretary of the Navy for Redevelopment, by Mayor Riley so we are supporting the Reuse plan by doing this sampling. It's not a response by Navy to the SPA, but a response by Admiral Robertson to BEST with the goal of making the community's plan successful.

The Environmental Impact Statement is based on the preferred alternative which is the plan that you see on the map and if not carried forth as it is shown, then the process will have to start again for another alternative and could potentially delay turnover of the property.

Austin Hilligas said a potential alternative might be just to let the Navy keep it and the community not redevelop it.

Captain Augustin said that the Navy is definitely not eager to put a padlock on the Base and see it lay fallow. The whole basis of the community's plan and its job-creating potential and financial analysis is having the lower end of the Base developed and the Maritime Industrial Park with it. If that part does not occur, the whole plan essentially falls apart financially. That's why the Navy is convinced of the importance of this particular piece of the puzzle to the entire plan. Even though it is not a short term job-creating type of an issue it does require a decision in the near term for the eventual success of the entire plan.

There were no other comments on the change in zone priorities.

9. Finding of Suitability to Lease.

Pat Franklin (BRAC Environmental Coordinator for the Naval Base) gave a short talk on the process for developing a Finding of Suitability to Lease (FOSL).
For anyone wanting to use a building would contact the Redevelopment Authority. If the Redevelopment Authority agrees, they would contact the Base Closure Office and request a FOSL be developed. The Real Estate Department of Southern Division and BECs would be involved to see if the property is suitable for lease.

Information gathered in the Environmental Baseline Survey (EBS) would be looked at and a determination would be made that the property could be leased - not transferred with deed. What we are looking for in coming to a determination for suitability is if there is any imminent danger for people being in that building. For instance, if the person was interested in Building 750 which is a Pipe Shop and they wanted to continue using it as a private Pipe Shop, it probably would be suitable.

There would be provisions in the lease which would give the Navy access to the property so that investigation, sampling and possible remediation can take place. There are some standard clauses for the lease which have been agreed upon by EPA and DOD.

Once the determination is made that the property is suitable, we come up with a document called a Finding of Suitability for Lease. The FOSL is forwarded to EPA and DHEC for their comments. If there are any comments they are incorporated in the FOSL and then the Commanding Officer of Southern Division signs the FOSL. Then it goes to the Legal Department who actually draws up the lease and puts in all of the provisions. The leases will be made with the Redevelopment Authority and they will sublease to others.

Right now about sixty buildings are being looked at which people want to lease. We feel that most of the buildings will be suitable for leasing. The BRAC Cleanup Team has a meeting scheduled to discuss which buildings are probably not suitable, but there shouldn't be many. Once it is decided which buildings cannot be leased we will tell the Redevelopment Authority.

Susan Floyd commented that the general public needs to know about this process. The Redevelopment Authority should get some press on this so that the public knows that this is being worked on.

Jim Conner wanted clarification that all leases would go through the Redevelopment Authority. Pat said that this was the plan right now, and all requests for leases would be through the RDA.

Ann Ragan said that the main thing DHEC looked at was if there was going to be any type of excavation, disturbance or removal of materials after leasing. DHEC support leasing the buildings for occupancy, but if someone wanted to lease a plot of land, tear down the building and build something else that would be another story. The leases would have restrictions against excavation and disturbance.

10. Captain Augustin asked for questions from visitors.

LT Donna Murphy wanted to know if any money was going to change hands for the Base property or for the utilities that would be used while the Navy is still on-board.

Captain Augustin said the community has requested an Economic Benefit Conveyance of the entire property (it hasn't been approved). This would mean that they would get the property for nothing and see if they could develop the entire site in such a way to be successful as a Redevelopment Authority and make jobs and see cash flow and take care of North Charleston's concerns for tax base and other services. If this comes

through, we anticipate that the users will not pay market rates. All the details have not been worked out but we don't see the users paying capital costs on the facilities while they are Navy owned.

Tenants would have to pay for utilities and all of their expenses. For common services such as street lighting, grounds maintenance, etc., the users may have to pay "into the pot" so that the Redevelopment Authority can run the place like a small city much as the Navy does today. The Redevelopment Authority will be the developer and will have to take in some money from the users to run the place.

This limited expense on the part of the users would make it attractive for job creation. They won't have to be paying the buildings off like other businesses. They will also be getting the equipment in the buildings for job creation.

There is a public policy issue in the fairness using government facilities to the detriment of outside competitors in Charleston and elsewhere.

Wilburn Gilliard asked if there were several people interested in the same building what the criteria would be in deciding who would get it.

Captain Augustin said that BEST had looked at job creation as the sole factor. The Redevelopment Authority will now have to make those decisions.

Susan Floyd asked if the Redevelopment Authority would be working with the City of North Charleston to give the businesses more incentive. Right now the businesses are given a five-year tax break if so many jobs are generated.

Wannetta Mallette said that North Charleston had five representatives on the Redevelopment Authority and would be looking out for North Charleston's interest.

Austin Hilligas commented that there were more incentives such as write-offs and tax incentives for companies that hire ex-Shipyard workers and the JTPA will pay for some of the expense of training workers. The companies will also get the property for less than market value and will get equipment already in place.

Eventually these incentives will go away as the infrastructure is improved and becomes competitive in its own right. Then you would probably see market rate rentals and percentages of the net proceeds going back to the Department of Defense. Money comes from Federal grants to do the infrastructure. The only problem with this Reuse Plan is that it won't work unless you get a lot of Federal money to improve the sites so it can be economically viable on their own. That becomes critical because next year BRAC 95 is going to be bigger than BRAC 88, 91 and 93 combined.

Captain Augustin said that BRAC 95 is now expected to be smaller than BRAC 93 because the Navy doesn't have enough money to close that many more bases.

Austin Hilligas said that, nevertheless, there will be more competition for grant money when BRAC 95 comes up and the Redevelopment Authority needs to get as much money as it can right now and get started on the development of the infrastructure which is the key to the success of the whole plan.

Captain Augustin said that Senator Hollings had put into legislation $6 million in the Navy's FY 95 budget to do utilities systems repairs and demolition of buildings to further the cause of the Reuse Plan.

Van Robinson asked if the Redevelopment Authority's meetings were open to the public.

Austin Hilligas said they will meet every Thursday at 1:00 p.m. at the REDCOMSEVEN Conference Room on the Base (the old Hospital Building) and starting on 25 August they will be open to the public.

In closing, Captain Augustin asked that the RAB members let his office know of anyone who had expressed an interest in the RAB meetings. He will arrange to have agendas and meeting announcements sent to them. He also encouraged members to submit written questions to his office. The questions will be answered in writing and passed out at the meetings or mailed.

He explained that the most recent meetings thus far have been outside of the Base and at night. Any suggestions for alternate arrangements will be considered. There was no consensus on changing from the current approach.

11. There being no further business, the meeting was adjourned.

12. The next meeting is scheduled for 13 September 1994 at the Marriott Hotel. The meeting will be from 7:00 p.m. to 9:00 p.m. with a Social Hour beginning at 6:00 p.m.

September 7, 1994

Restoration Advisory Board Questions
Presented by Arthur Pinckney
Dated August 9, 1994

1. When will the BRAC Cleanup Team produce and distribute fact sheets on the cleanup process?

- During the RAB meeting of July 12 it was agreed that a sub-group of RAB members would develop the process for dissemination of information and status of the cleanup process. A progress report will be provided at the September 13 RAB meeting. Also, the Naval Base Public Affairs Office in conjunction with the BCT is providing news releases for general information to the public.

2. How are the Corrective Action Management Plan (CAMP) and the Comprehensive RFI Work Plan different from the Project Management Plan that the RAB has (page 19)? Can the RAB community members get a copy of these?

- In accordance with the HWSA portion of the RCRA Part B Permit, a RFI Work Plan is required to be developed to provide the investigative strategy for identifying environmental contamination on the Naval Base. Because of the size of the Naval Base, it was decided that a new approach would be used by dividing the base into twelve investigative zones. A Comprehensive RFI Work Plan for the base was developed with individual detailed Work Plans for each zone. The Comprehensive Work Plan contains a Project Management Plan (PMP), Sampling and Analysis Plan, Data Management Plan, Baseline Risk Assessment Plan and a Health and Safety Plan which are generic to all zones. The PMP identifies the technical approach, project management team and the schedule, or CAMP, for accomplishment of the RFI and Corrective Measures Study (CMS).

A draft copy of the PMP and CAMP were provided to each RAB member. The Comprehensive RFI Work Plan has now been approved by EPA. Final copies of the CAMP will be provided. Access to the Comprehensive Work Plan as well as all Zone Specific Work Plans will be provided to all RAB members as well as being available at the Information Repositories.

3. When will the 30 day public comment periods begin? Can the RAB produce an explicit fact sheet with a timeline that highlights opportunities for public participation?

- The 30 day public comment period addressed in the PMP is in support of the CMS which will select the specific remedies to cleanup up the Naval Base after the RFI. The RAB will have an important role for providing community input to the remedy selections. The CAMP provides anticipated schedules for the CMS for each investigative zone. The RAB sub-group will discuss the need for a fact sheet.

4. Where is the cleanup process according to the activities described in table 5-1 (page 20)?

- The cleanup process is now in the RFI Work Plan stage. The Comprehensive Work Plan has been approved by EPA and the Zone H Work Plan is awaiting EPA final approval. Work Plans for Zones C and I are being completed for submittal to EPA and DHEC. Based on verbal agreement sampling began in Zone H on August 9, 1994. The CAMP also provides the schedule for the phases shown in Table 5-1.

5. Page 8 says that the tables in Appendix A-1 and A-2 "include proposed recommended actions for each SWMU and AOC." Are "proposed recommended actions" considered the same as the column labeled "investigative approach' in the tables? In that column in Appendix A-1 and A-2, what do "NFI", "CSI", and "RU" stand for?

- The "proposed recommended actions" and "investigative approach" are the same and designate the type of investigation necessary to determine the extent of contamination at an identified site. The following designators are used:

NFI - No Further Investigation is required based on information provided by the RFA that no releases of contamination to the environment have occurred.

CSI - Confirmatory Sampling Investigation is required where not enough information is available to determine whether or not contamination has been released to the environment. Based on the CSI either a full RFI or NFI designation will be made.

RU - Regulated Units are sites specifically regulated by the RCRA Part B permit and will be closed using specific requirements of the SC Hazardous Waste Management Regulations.

RFI - RCRA Facilities Investigation is a full site investigation to determine nature and extent, and the potential pathways of contaminant releases where contamination is known to have been released to the environment.

6. Has the BRAC Cleanup Team made commitments to hire in-state contractors for preparing the EIS and for the cleanup?

- The BRAC Cleanup Team is not involved in the contracting process. Contracting for both the EIS and cleanup is accomplished by Southern Division Naval Facilities Engineering Command using standard Department of Defense contacting regulations.

7. If "risk assessment protocols will incorporate future land use exposure scenarios" (page 17), might this not lock the land into specific future uses and foreclosure on others? In other words, does this not amount to tailoring cleanup standards to anticipated future use?

- The goal is to cleanup the environment to background for unrestricted future use. If this is shown to not be achievable then a risk base cleanup will be used. The risk base cleanup is a two part process. The first step is to perform a risk assessment based on pure data to determine what effect the contaminants are having on human health and the environment with no specific reuse incorporated. Secondly risk management will be invoked to determine cleanup levels.

8. Who is actually doing the Environmental Baseline Study and when do we get to see it?

- Ensafe/Allen & Hoshall, an environmental engineering contractor, is preparing the Environmental Baseline Survey (EBS). The draft EBS is in Navy review, and when completed will be placed in the Information Repository.

9. What is a "presumptive remedy approach" (page 17)?

- The presumptive remedy approach takes into account all available information prior to beginning the investigative phase. Possible remedial actions are identified based on the anticipated contaminants to assist in determining the extent of sampling and identifing how the resulting data will be used. This does not

prevent the use of other remedial actions or extension of sampling if determined necessary.

10. How are "background concentrations" determined for the purpose of cleanup alternatives if the land has been used as a base and shipyard since 1901?

- This will be a difficult process since much of the base is fill material and all of the base has been developed. An undeveloped area similar to the base will be reviewed and background determined from this. If this is not achievable, the risk based assessment discussed above will be invoked.

11. What were the criteria for determining what would go on the "early actions" list? What about cancer-causing and radioactive agents?

- Early actions were selected based on the information that was known of an area and the contamination which is known to be present. The site must also have been definable enough that the source of the contamination could be removed. No cancer-causing contaminated areas have been identified. Radioactive materials are being removed and surveys to verify the absence of radioactive material are being accomplished by the shipyard under process closure.

12. Do we have any data on the extent of ground water contamination?

- There is limited information that was obtained from existing ground water monitoring wells, but this is not adequate to make final determinations for cleanup. The RFI will provide the required data to characterize the groundwater contamination.

13. What funding has been received and what is anticipated for cleanup?

- As referenced in the BRAC Cleanup Plan, from October 1980 to September 1993, $1.3 million was spent on the Installation Restoration of the Naval Base. Once the President's budget is approved, the funding cost tables can be made available. Due to contractural requirements, detailed budget information is not available for dissemination.

14. Will there be a memorandum of understanding signed between the Navy and the other federal agencies moving onto the base to clarify responsibility for cleaning up those areas transferred?

- The environmental cleanup of the property will remain the responsibility of the Navy. A MOU will be signed between the agencies which will provide for Navy access for continued investigation and cleanup. However, the new agencies will be responsible for the management of any hazardous waste which they generate.

15. When and how will the "public scoping " process be conducted?

- Formal public meetings are required for certain phases of the environmental process such as the EIS public scoping meetings, and the CMS and permit modification public meetings. These meetings will be announced in the newspaper and notifications will be sent to individuals who requested to be on the mailing lists. The RAB meetings, although not specific to any event, are also an important method for the public to become aware of the environmental cleanup process and have input into the process through their community members.

16. We would like the community to be able to review the risk accessment model, exposure standards, and data collection methods being used for the work plan - will the Sampling and Analysis Plan and Baseline Risk Assessment Plan describe these? Have they been prepared yet?

- The Comprehensive RFI Work Plan contains both the Sampling and Analysis Plan and the Baseline Risk Assessment Plan which have been approved by EPA. This document will be placed in the public repositories for review. A complete copy of the Comprhensive RFI Work Plan will be available at the next RAB meeting for review.

Questions for RAB meeting
August 9, 1994

• When will the BRAC Cleanup Team produce and distribute fact sheets on the cleanup process?

• How are the Corrective Action Management Plan (CAMP) and the Comprehensive RFI Work Plan different from the Project Management Plan that the RAB has (page 19)? Can RAB community members get a copy of these?

• When will the 30 day public comment periods be? Can the RAB produce an explicit fact sheet with a timeline that highlights opportunities for public participation?

• Where is the cleanup process according to the activities described in table 5-1 (page 20)?

• Page 8 says that the tables in Appendix A-1 and A-2 "include proposed recommended actions for each SWMU and AOC." Are "proposed recommended actions" considered the same as the column labeled "investigative approach" in the tables? In that column in Appendix A-1 and A-2, what do "NFI", "CFI" and "RU" stand for?

• Has the BRAC Cleanup Team made commitments to hire in-state contractors for preparing the EIS and for the cleanup?

• If "risk assessment protocols will incorporate future land use in its exposure scenarios" (page 17), might this not lock the land into specific future uses and foreclose on others? In other words, does this not amount to tailoring cleanup standards to anticipated future use?

• Who is actually doing the Environmental Baseline Study and when do we get to see it?

• What is a "presumptive remedy approach" (page 17)?

• How are "background concentrations" determined for the purpose of cleanup alternatives if the land has been used as a base and shipyard since 1901?

• What were the criteria for determining what would go on the "early actions" list? What about cancer-causing and radioactive agents?

• Do we have any data on the extent of groundwater contamination?

• What funding has been received and what anticipated for cleanup?

- Will there be a memorandum of understanding signed between the Navy and the other federal agencies moving onto the base to clarify responsibility for cleaning up those areas transferred?

- When and how will the "public scoping" process be conducted?

- We would like the community to be able to review the risk assessment model, exposure standards, and data collection methods being used for the work plan — will the Sampling and Analysis Plan and Baseline Risk Assessment Plan describe these? Have they been prepared yet?

DATE: 9 AUG 1994

VISITORS

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD
MEETING ATTENDANCE SHEET

NAME	ORGANIZATION	PHONE
BARRY LESTER	Wright Padgett & Ass.	571-0575
KEITH JOHNS	ENSAFE/ALLENT HOSKIN	919 851 1886
DAVE BACKUS	" "	901/372-7962
JAY CORNELIUS	" "	" " "
Jim Conner	Brown Wood Civic	554-1456 Rob
Jim McNew	CNSY	743-3552
Austin Higgins	BEST	740-0670
David Franklin	So Div.	743-0646
Donna Murphy	CNB PAO	743-3940
Hans Kasch	LAW ENGR.	529-0893
Matthew A. Hunt	So DIV	743-0525
Jeff Bennett	Ensafe	901-372-7962
Jim Spearman	"	" "
J. MOORE	RCO	743 9985
HB Jenson	WSA	769-5212
Robert R. Shelor	PIC	821-6004
THUANE B. FIELDING	SOUTHNAVFACENGCOM	743-0513
PAUL BOSCO	USN	743-0716

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 13 September 1994

1. Call to Order. The meeting was called to order by Mr. Van Robinson, Co-Chairperson. He asked that members of the RAB and Guests introduce themselves.

2. Introduction of the RAB.

Mr. Van Robinson, Co-Chair
Captain Jim Augustin, Co-Chair
Mr. Steve Best
Mr. Doyle Brittain
Mr. Jim Conner
Mr. Bobby Dearhart
Mr. Lou Mintz
Mr. Bob Veronee
Mrs. Susan Floyd
Mrs. Pat Franklin
Mr. Wilburn Gilliard
Mr. Donald Harbert
Mr. Ralph Laney
Mr. Robert Mikell
Mr. Arthur Pinckney

3. Introduction of Visitors.

Mr. Joe Bowers	SCDHEC
Mr. Erik Settecase	ET Ventures
Mr. Stuart Forrest	ET Ventures
Mr. Tony Hunt	SOUTHNAVFACENGCOM
Mr. Keith Johns	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Mr. Ray Anderson	Chasn Redevelopment Authority
Ms. Madeleine McGee	Chasn Redevelopment Authority
Captain W. E. Nold	NAVSHIPYD
Mr. Jim McNeil	NAVSHIPYD
LT Donna P. Murphy	COMNAVBASE Public Affairs Officer
CDR Jim Moore	COMNAVBASE Base Transition Officer
Mr. Ted Campbell	US Geological Survey
Mr. Hosea Menci	TPA
Mr. Milton Lombard	TPA
Ms. Ledlie Bell	Interested Resident
Ms. Rameca Vincent	WCSC-TV
Mr. Gene Edwards	WCSC-TV

4. Administrative Remarks, Comments on Minutes and Shared Goals and Objectives.

Van Robinson asked that all members turn in their "Shared Goals and Objectives" sheets passed out at the last meeting.

There were no comments on tbe minutes from the last meeting and they were accepted and will be put into the repository. Pat Franklin explained that there are two information repositories in Charleston. One is at the Public Library on Dorchester Road and one is in Building 76, outside the Reynolds Avenue Entrance to the Base. We have books the repositories which contain minutes of all of the RAB meetings for public review.

Bobby Dearhart mentioned that there are three other volumes in the repositories which contain Work Plans and other information they might be interested in.

Arthur Pinckney wanted to know if his written questions on previous minutes were included in the books. He was assured that they were attached to the minutes and included.

5. Discussion on Questions from Arthur Pinckney.

Bobby Dearhart said the Base Closure Team, EPA and SCDHEC had come up with responses to the questions and written responses had been passed out to RAB members. He said that he would welcome any additional questions or comments and stated that additional questions could be submitted at any time if the resolutions were not satisfactory.

Arthur wanted clarification on one of the questions; i.e., are the contractors from out of state or from South Carolina. Bobby Dearhart stated that the contractors are from out of state, although EnSafe does maintain a local office.

Van Robinson assured Arthur that discussion on his questions would be on the agenda for the next meeting.

Robert Mikell noted that EnSafe was doing the Environmental Baseline Survey (EBS) and that another firm was doing the Environmental Impact Statement (EIS). He asked if the information was being shared by the firms. Pat Franklin said that a copy of the draft EBS was given to the EIS contractor for his information and use.

Robert Mikell wanted to know if the EBS was final. Bobby Dearhart said that it was in the draft form right now. It is due to be submitted to the State by 1 December.

Bobby Dearhart explained that the Environmental Impact Statement is required by the National Environmental Policy Act (NEPA) to address the actual impact of the base closure and reuse on the environment. That document has been prepared in draft format by E & E Engineering, which is a national company that has offices all over the country. One Navy review has been done of the document. We will be doing our final Navy review on 16 September. Shortly after that it will be going out for a public review period of about 45 days so that any interested citizen can review and comment.

Pat Franklin said that there will also be public forums on the DEIS so that interested parties can come and voice their concerns about the draft EIS. All comments and concerns of the citizenry will have to be addressed prior to the final EIS.

Pat emphasized that the EIS and EBS serve different purposes. The EIS will go to

Washington to be approved and a Record of Decision (ROD) will be signed that will say that the Navy agrees that the Base can be reused as proposed. And then, any of our transfer decisions must be consistent with that ROD.

6. Corrective Measures Brief.

Doyle Brittain, EPA Region IV, gave a talk on Correctives Measures.

We are proceeding with the RCRA Facility Investigation(RFI) and the Risk Assessment (RA). The RA is a part of the RFI. This is to determine what is the risk of the contamination that is at the Base now. We will then use that information to determine how much cleanup needs to be done, where cleanup needs to be done and what type cleanup needs to be done.

We will soon be beginning what we call the Corrective Measures Study. This is where we evaluate the various cleanup methods to determine which ones are most effective and which ones we can do most economically. As we go through the RCRA Facility Investigation, we are identifying where all of the hazardous waste sites are. We are trying to identify all of the sites and what is there - the various kinds of compounds - because you don't clean up one kind of compound like you would clean up a different kind of compound. There are various kinds of cleanup methods. If we have a small area of some contamination, it may be that we might just want to dig it up and haul it off - we call that removal.

On the other hand, if you have something like groundwater contamination where you might have an oil plume, that is, oil contamination in the groundwater, what you can do is what we call "pump and treat." That is where we pump the water out of the ground, treat it, and put the clean water back in the ground and you recover the oil that is removed from the water.

Another technology that is available is bioremediation. That is there are certain kinds of microorganisms that love to eat certain kinds of contaminants. This is an option.

If the contamination is highly volatile, we might use something like vapor gas extraction where you put something like steam into the soil and drive the organic vapors out and recover them and clean the area that way. If you have something that is contaminated with metals it may be that you can do what we call in situ vitrification. You heat the soil and solidify it. It turns into rock and it's not going to hurt anyone. Then you don't have to do anything else with it. You just leave it there.

Another corrective measure that there tends to be some sentiment on is incineration. That is, pull the stuff out of the ground and simply burn it. You have to make sure you control the emissions so that you don't cause any air pollution problems. If you do it right, the air that comes out from the burning is carbon dioxide and water which causes no problem.

One measure we are going to try to avoid if at all possible, but cannot rule out, is called closure in place. This is where we have a situation where there is just too much contamination and there is nothing else we can do with it, we may put a slurry wall around it and put some kind of impervious cap on top of it and leave it there and monitor it for some period of time. We are going to clean the areas the very best that we can so that they will not cause any problems to anyone in the future so that we can get maximum utility out of the property that is on the Base.

I've only named seven measures, there are hundreds of them. I have a person working with me right now whose job it is to go out and talk with the contractors and anyone who knows anything about the contamination on the Base. He's trying to get a handle on it and a price tag on what it would cost to use each of these various cleanup methods. We aren't going to have a price tag to put on them anytime soon, but hopefully by the time that we are through with the RFI process and the Corrective Measures Study and it comes time to make some final decisions for the EIS, and some final decisions on the Reuse Plan, we should have a little better information.

What I would like for you to do is to give me any information on any contamination you think is at the Base and give me any information you have on what you think is a good method of cleaning that up. If you have a good cleanup method, we will be glad to take it, evaluate it, and take a look at it as a part of our Corrective Measures Study.

The time is coming a few months down the road we will have a public meeting required by law and will be asking the public what they think. We're going to tell the public that we tried a number of corrective measures on a test basis and what are the facts and figures on how effective each one of them is going to be. We're going to be saying "this

is how much it's going to cost to clean up - what do you think?" We are going to be asking the general public for their comments.

Van Robinson asked if the RAB members had any questions for Doyle on his talk.

Arthur Pinckney wanted to know how the public was going to get informed about the public forum.

Doyle said that there is a legal process that the Navy will have to go through. They will have to inform the public by the newspapers, television , the radio, etc. It has to be announced a certain number of times, a certain number of ways and for a certain amount of time.

Jim Conner asked Doyle what the public was going to be asked or told.

Doyle said that at the time of the public meeting, the results of the Corrective Measures Study will be presented. We will tell them for instance that we have tried these three cleanup techniques and if we use technique "A", it will get the soil cleaned up to a certain level, but it's going to cost this amount of money. If we use this other one we get it cleaned up to some other level and it's going to cost more money. We are going to be asking the public for their opinions on which one they would prefer to see us use.

Jim asked if we were really asking the public to draw a conclusion on what technique they want us to use.

Doyle responded that the public would be invited to give comments and EPA would draw the conclusion.

Van Robinson asked for questions from the guests.

Milton Lombard said that he thought the technology was already there and asked why we have to experiment to do corrective measures. He asked if the RAB was just trying to show the public that if they want it cleaned up to the pristine level it is going to cost a fortune and if you go to a lower level it won't. He asked if the public was being set up to take less than what should be done.

Doyle assured everyone that the public was not being set up for anything and that the Cleanup Team was not experimenting from the standpoint of ignorance. We know there are hundreds of different kinds of cleanup measures. These are well-documented. We are going to pick out of those some which we feel will give us the best answers, but you've got unique contamination at this Base. There are no two hazardous waste sites

in the world that are exactly alike. So what we are going to do is evaluate how effective a cleanup technique will be for a specific application and then we will be making cost estimates.

Ledlie Bell said that asking the general public was one thing, but there may be some environmental people who would be loathe to suggest technologies when they are not the ones with the contract.

Doyle said he understood that, but they were still members of he community. We are trying to be responsive to any concerns that the community has. We are asking, up front, proactively, if you have a concern let it be known now.

Ted Campbell asked Doyle how he felt about pilot scale studies.

Doyle said that is what the Corrective Measures study would be.

Ted asked if it would be a series of actual in-place pilot studies on a select group of sites.

Doyle said that in certain simple situations you want to just dig it up and put it in a 55-gallon drum and there's no need in evaluating that. That is obvious. In unique situations with complex contamination and high costs, you may need to take another look and try two or three alternatives.

Ted asked when the pilot scale projects come in to play and how do you decide which sites warrant a pilot scale study because they can be expensive.

Doyle said the uniqueness of the site and the type of contaminants discovered would decide. If the site is complex and lends itself to several alternatives, then we'll take a look at the pilot scale.

Stuart Forrest asked if there was a budget and if the Navy was going to ask the remediation company or the supplier to fund the tests.

Pat Franklin said that the Navy was working on the budget. Also, the Navy had not planned to have others fund the tests, but if it was offered it could be looked at.

Milton Lombard wanted to know if the level of cleanup was government mandated or are there degrees of cleanup which are arbitrary. In other words, must it by law be cleaned up to a certain level?

Doyle Brittain said that a Risk Assessment was being done. Under the Superfund Statute there are certain cleanup criteria that have to be attained and we are going to be

applying that Risk Assessment criteria to the situations we have at this Base. So, yes, by law there are certain cleanup criteria. Those are in the CERCLA Statute.

Milton wanted to know if there was any room for discretionary judgments to go to a higher level of cleanup.

Doyle said that those type of judgments get into Risk Management. Since we have so little data he couldn't speculate on it yet. Decisions will have to be made later on.

Milton Lombard mentioned that he had heard about some Air Force Base in New England which had been turned over to a local entity where a judge ruled the government had to come back and clean it up.

Doyle wasn't aware of that particular case, but environmental liabilities will always be owned by the Navy and therein lies the incentive to clean it up right the first time before you sell the property.

Captain Augustin commented that he had recently attended the DOD Regional Conference in Atlanta. He said that they had speakers on soil remediation. He was impressed with how many ways there are to clean up volatile organic compounds (VOCs) because of their chemistry and how few ways there are to deal with metals, such as things Doyle talked about in making concrete or vitrifying the soil.

Jim Conner said he had a problem with saying something like a particular site is going to cost $10 million or $5 million or $3 million and then going to the public and asking which one they wanted us to do. That really sounds like we don't know what we're doing.

Doyle Brittain responded that it was called "getting the public involved" and it's something we have to go through. It's required by statute that the public have opportunity to provide input into the decision-making process.

Arthur Pinckney wanted to know if the Navy was paying for everything, no matter what the cost.

Doyle said the Navy would be footing the bill but pointed out that even though the "Navy" was paying, the people as taxpayers will end up paying.

Lou Mintz said he could relate a scenario from an earlier round table discussion. When a community heard what it was going to cost to clean up so that they could eat the dirt and drink the water right out of the creek, they decided they didn't want to spend that much money. They decided they didn't need to eat the dirt and that they could purify the water.

Jim Conner said that would be true in his case if he were the one shelling out the money.

Lou reiterated what Doyle had said that the public as taxpayers would be paying for it in the long run.

Jim said he realized that but for this local problem he had a helping hand from taxpayers from all over the country. Normally, the helping hand is kind of localized.

Lou Mintz said that the other side of that was if the public didn't have any input and some politician said what it had to be and we had to pay for it whether we wanted it or not. This way, at least we get some input. That's the bottom line.

Captain Augustin commented that the corrective process measures a very open process - just as the RAB is a very open forum for these kinds of things to be discussed. By the way the regulations are stated, the community is not asked for the remedy. The experts are here before you. They know what to do or the range of things to do. People can feel confident that if they want to know what is going on they can know and they can input.

Milton Lombard commented that the public was not responsible for causing the contamination. Maybe they were responsible for not monitoring the people who were in charge of the Base to see that it was handled more delicately over the years. So putting the onus of what we should or should not do in terms of cost on the public doesn't seem right.

Doyle said he understood that and nobody's trying to say the public did anything wrong. We're just trying to say that if the public has any concerns, we want to hear them before we go out and spend millions of dollars cleaning it up. We don't want to hear later that they don't like the way we cleaned it up and they wanted it cleaned up differently. We will be making the decisions in conjunction with SCDHEC and the other Natural Resources Trustees but the thing is that this is an open process and we want to hear any concerns that the community has.

Milton asked if the question was level of cleanup and not just if it was going to be cleaned up.

Doyle said it was definitely going to be cleaned up and EPA would determine what that level of cleanup will be.

Bobby Dearhart commented that sometimes you just have to take a look at what you are gaining for what you are paying out. You can get to a level where you are just gaining very little benefit from it and that's one of the things the public needs to understand.

7. Update on BRAC Cleanup Plan/EnSafe/Allen & Hoshall.

Dr. Jim Speakman explained about the firm EnSafe/Allen & Hoshall. EnSafe, an environmental consultant has done work across the country including sites on the Superfund list.

Allen & Hoshall, a design firm, has been around for 75 years. They designed the Hazardous Waste Container Storage Building at the Charleston Naval Shipyard that is still being used for mixed waste.

In combination, our two firms provide a resource of about 300 personnel. EnSafe has a commercial office in Charleston. The office was opened last year and since it opened we have transferred three employees from our Headquarters office in Memphis to Charleston who are familiar with EnSafe's business practices. We have supplemented those three employees with employees recruited from the local economy. We now have eleven employees and only three are from outside the local economy.

At the last RAB meeting there were some pictures on the display board showing some of the field work that was being done. Using a color coded map, it was pointed out that work was going on in Zone H on the South end of the Base near Shipyard Creek. In Zone H, there were originally 51 sites identified that were candidates for assessment of contamination. After a preliminary assessment of the past use of those sites, the kinds of materials that were stored there, the history of any spills or any evidence of spills, the number was narrowed to 28 sites at which field investigations are being performed.

As of today, at those 28 sites we had 51 groundwater monitoring wells planned to be installed. We have 24 of those 51 groundwater monitoring wells in place. We began the process on the 4th of August, just before the last RAB meeting. We expect to complete the installation of the rest of those 51 wells by the end of September. At the same time we had planned to take soil borings from which soil samples would be collected at 180 locations in Zone H at these 28 sites. From each of those locations, two discreet soil samples would be collected - one from near the surface and one from very near the groundwater table. As of today, soil samples have been collected from 100 of those 180 locations and therefore we have sent 200 soil samples to the laboratory for analysis. We expect to complete this sampling effort by the end of this month.

I know that everyone is interested in how quickly we're going to see some data. Our laboratory takes a normal period of at least 21 days to deliver to us analytical data from the samples that we have shipped to them. I have in hand no data today from the samples that have been collected in the months of August and September. We do expect it to start coming in the next couple of weeks.

We are beginning by analyzing each sample for a broad spectrum of both organic and inorganic constituents. In at least 10% of those samples, analyses will be performed irrespective of what we know or suspect may have been at that site. The analysis will identify a search for every identifiable hazardous waste constituent identified in the Resource Conservation and Recovery Act. It's called the Appendix 9 List which has about 430 listed chemicals.

The full inventory of data from groundwater and from soil won't be in until we finish the entire sampling effort which we'll finish at the sites by the end of this month. We should then see some lab data back in our hands by the end of October.

There is one other field effort that you need to be aware of. That is the background soil and groundwater characterization. In order to determine if contamination is present, one needs to have an appreciation for what the background conditions are against which you are comparing that data. The background investigation in Zone H has involved establishment of a network over the entire Zone in areas that are believed to be not contaminated by hazardous waste activities and that background sampling effort is planned to include 24 additional groundwater monitoring wells and an additional 214 soil sampling locations. Each of those is going to have 2 vertical locations from which samples will be acquired. This sampling to establish background conditions will be done in October.

That covers where we are today and we are concentrating in Zone H until other work plans are approved.

Jim Speakman asked for questions from members or guests.

Madeleine McGee asked when the report on Zone H would be completed.

Todd Haverkost said that it would be sometime in March 1995.

Madeleine wanted to know what it would take to get it earlier.

Todd indicated that the only want to get a report quicker was to get the data quicker and when you expedite the data collection effort it would mean a 100% increase in analytical cost for starters. That isn't even including labor costs.

Jim Speakman said that, generally speaking, if you half the turn around time, you double the cost and if you half it again, you double it again.

Madeleine said she understood that collection went through November and wanted to know what happens between November and March.

Todd Haverkost said that you just can't have the data and results at one time. The data has to go through an extensive validation process before you can rely on it to do the Risk Assessment and establish the nature and extent of contamination. Just in Zone H, we are estimating about 1,500 samples. To evaluate that many samples, do the Risk Assessment, and get into evaluating a lot of the chemical characteristics of the soil, three months is very rapid.

Madeleine McGee wanted to know what was driving the three months - staffing or something else. That is, if you had twice the staff to allocate to the analysis it could be done in half the time.

Jim Speakman said that he didn't think there was a correlation.

Todd Haverkost said that at some point, somewhat like the corrective measures, once you get up near 100% there is the law of diminishing returns. You would have people bumping into one another and the system becomes very inefficient. In terms of manipulating data, EnSafe's chemical data base is all automated with state of the art GIS systems to help get rid of the manual labor involved.

Susan Floyd said she wasn't trying to be negative but Charleston was banking on getting the results in and getting people in. She said she was shocked that it was going to take until March with everybody working so hard. We don't seem to be going anywhere. They are working to get everything prepared, sent off and now we just have to stop and wait.

Jim Conner asked if this was the "fast track" we were supposed to be on.

Jim Speakman said that the schedule that was presented in the Base Cleanup Plan was presented to everyone on the RAB and that EnSafe was on schedule.

Susan agreed and said that her "guns aren't loaded." She said she had been comfortable with the plan to begin with but not now.

Erik Settecase asked if only one particular laboratory was being used.

Jim Speakman said that EnSafe had multiple sub-contract laboratories but laboratory capacity is not limiting the schedule.

Erik Settecase said he was just curious that if we have two people digging a hole would it get done quicker than if you have one person digging it.

Todd Haverkost said he wasn't disagreeing with that, but it's not a question of capacity of the laboratories. He said one thing EnSafe didn't want to get in to is combining labs within certain study areas. You get into problems with data comparability between laboratories, different QA issues may come up. As we move on to different zones, we will go to different laboratories and they will get an entire area and we will have reassurance before we give them a zone that they can handle all the capacity.

Jim Speakman said it would be incorrect to assume that shipping samples to two labs would get the results in back 15 days as opposed to 30. It's not going to happen.

Eric Settecase said that he knew EnSafe needed the 30 day window for various processes and that everybody understood that. He said he just thought that if two labs utilized the same 30 day window, the time has effectively been cut in half because you don't have one lab doing a 60 day window.

Jim Speakman said that something else would then become the critical path. The critical path then becomes how fast EnSafe can deliver those samples to the laboratories. Right now we are delivering samples at a pace that we believe we can keep up with in a high quality fashion. EnSafe is not prepared to sacrifice quality in exchange for speed.

Eric Settecase said he thought one of the issues here was speed.

Madeleine McGee asked it was possible to phase or get preliminary results. The greatest concern about the South end is whether the conditions are such that they will not allow certain types of activities and construction on the site. She wanted to know if it was possible to get that information in a preliminary or draft fashion in advance of the March report. In March, we had hoped to have the completion of the EIS process and the Record of Decision which is like the community's option on reusing the property.

Bobby Dearhart said that the Navy had discussed it with the Ports Authority and we told them that towards the first of the year we would be able to start presenting some of this information to make these decisions. They don't want raw data. They want to know what the ultimate cleanup is going to be and until we get the information and validate it we can't make those type decisions

Robert Mikell said that Zone H wasn't all of the Ports Authority Site. There is another zone that we haven't even started looking at.

Bobby said this was true, Zone H included some of the areas that are of highest concern which are the landfills. Southern Division is following this very closely and have people

that review everything that is presented by the contractor as far as schedules. They have compressed this as much as possible. We have meetings constantly with EPA and SCDHEC and are trying to do everything possible to compress this, but it gets to a point that you can't compress it any more. Six months to a year is not abnormal and we're going to compress it into three months. We definitely don't want to put out information that is not correct.

Pat Franklin said that if the Navy gets into getting the data in and we find that we can get it out quicker we're not going to wait until March. We will be working with EnSafe throughout the whole process. From some of the previous investigations that have come in you can see the depth of analysis that has to be done on all of these contaminants. You are looking at possibly 430 maps showing all the contamination through all of those sites. There is a lot of work and effort in putting that report together.

Jim Speakman said he wanted to put the magnitude of the assessment into perspective. There are 400 plus parameters in the Appendix 9 list and for the shorter list, the Target Compound List (TCL), the organics and the inorganics, we are talking about 50 parameters in that list. You take that number and multiply it times the number of soil samples, locations and groundwater monitoring wells included in both the background grid and all of the site specific and you are talking about thousands and thousands of data points. So it's not a simple, easy, quick task - it's a very deliberate task - and it must be deliberate in order for EnSafe to make good sound decisions.

Jim Conner said he realized that a lot of testing had to be done in every area but it looks like you have eleven people getting these samples and they can only do so much. Nobody can test them if they are not taken. They can't be sent to any other lab or anything if the samples aren't taken so eleven people are running the show.

In addition, he said it had taken seven months to do one map and he understood there would be 40 maps.

Jim Speakman said that as a general rule there would be at least one map for each of the sites investigated to show, if nothing more, sampling locations and the results of those particular samples. So we will have, classically, in this rule of thumb, 28 or so maps that represent only Zone H.

Jim Conner asked when all of the testing would be finished for the whole thing.

Jim Speakman said work plans will continue to be generated as they can be reviewed and approved and then implemented. EnSafe hopes that investigations can be performed concurrently at as many as three zones at one time. The BRAC Cleanup Plan projects April of 1996 to finish the field work.

Jim Moore wanted to know how many teams were in the field taking samples and how many people were out there drawing samples today.

Todd Haverkost said there was probably about 15.

Jim Moore wanted to know if they were using hand augers or if the trucks with rigs.

Todd said that one drill rig was on site and there would be another on site next week.

Jim Speakman clarified that sampling was not limited to the drill rig activity. Some of the soil samples are taken with hand augers and that's what EnSafe is doing.

Bobby Dearhart pointed out that there is a lot of technique involved in taking samples. You don't just take a shovel and dig in the dirt. I don't think people realize that. You have specific requirements and they are laid out.

Jim Moore said he understood that but he was concerned because in August we talked about two drill rigs coming. EnSafe had said all they needed was two weeks notice and three or four drill rigs would be here and we've only got one. Also, EnSafe had submitted work plans on Zone I, C and H but EPA and SCDHEC say they don't have them.

Bobby Dearhart said there were some questions on Zone H. Workplans for C and I have been submitted but we needed to pull them back because of comments on Zone H that we had not implemented into Zones C and I.

Jim Moore asked again if C and I had been submitted.

Bobby explained again that they were submitted and recalled so that when they are given to EPA they will be in final form so that when they review them they won't come back with the same comments.

Jim Moore wanted to know when they would be submitted.

Bobby said that C and I would be submitted two weeks after Zone H approval.

Jim Moore wanted to know when that was going to be.

Bobby said there were only a couple of problems to work out. He said that the last few days had been spent trying to work it out and it would be soon. He said getting Zone H was top priority.

Jim Conner wanted Bobby to clarify whether it was EnSafe that was the hold up.

Bobby said that we have gotten verbal approval, technically, to go ahead and do sampling. One of the problems we have is how we are going to roll into our work plan some of the work we had tried to start last February. It's not slowing down the actual sampling that's going on now, but we need to get all of the information rolled into Zone H and get it completed prior to getting EPA and SCDHEC's final approval. We are very close. We only have one outstanding point out of many, many points that we have resolved in the last month. They cannot do I and C until we get an approval on H.

Jim Conner commented that the Navy is holding up EnSafe.

Bobby said that was right as far as getting into additional zones.

Jim asked if there was anything that could be done.

Bobby said the Team was working as hard as it could to resolve the issues.

8. Update from Community Relations Working Group.

Pat Franklin said that the Group, which included Susan Floyd, Lou Mintz, Arthur Pinckney LT Murphy, Keith Johns and herself, had met all afternoon discussing a lot of the issues that came up at the last RAB meeting about community relations. She introduced Susan and Lou who presented the update.

The group discussed four subjects. One of the subjects was to produce fact sheets of exactly what was going on. To do that, rather than use the maps with all of the lines and circles and colors, etc., the group decided to pick one building or small area as an example and show exactly in a fact sheet how that building or area is going to be cleaned up and to what extent it would be cleaned up and what contaminants there are. The group thought that people would understand it better if the fact sheet was limited to a small area and dissected it and had a cross-section drawing. It would show what samples would be taken and go through the entire process of cleaning it up. It won't be a book, it will be just a couple of sheets, maybe a double sheet, folded with four sides with a picture of the building and an explanation of what's going to happen. It won't be complicated.

Another fact sheet is needed on what the Restoration Advisory Board is and what it does.

Additionally, there is a need for a list of the 10 most asked questions about what is going on at the Naval Base. It may be 25 or so at first and then massaged down to what we think are the most important questions that should go on the fact sheet. We feel like it is our job to get this information out to the public and feel this is a very simple and

effective way to do it. The sheet would be in big easy print with no EPA or SCDHEC jargon. We don't want any acronyms or funny names.

We are also thinking about a mass mailing. Every house in the tri-county area would get a post card with a few questions and a few answers on it and if the people were concerned and wanted to ask questions it would show a place or number to get information.

We believe there should be an environmental public affairs officer that just handles questions from the public. If we generate enough interest, it will overwhelm the Base Public Affairs Office and the BRAC Cleanup Team.

Pat Franklin showed a fact sheet that had been developed for use on-Base to say what was going on with the sub-committees and things like that. It's a simple one - pager that is put up on bulletin boards around the Base so people can know what is going on.

Lou said he wanted a short status report from each organization, EnSafe, EPA, etc. that shows the progress of what is going on and what is coming down the pike. He mentioned again that the sub-group had met all afternoon and he had heard a lot of good information from EnSafe. If we had the information in a short fact sheet that we could take home it would be helpful.

Another idea the sub-group considered for public outreach was a poster that could be taken to various groups or maybe even put it in shopping centers to bring attention to our fact sheets. It would be a stand-alone that could be put at various locations. The public really needs to be reached so that they can ask questions and make comments and be informed.

Lou suggested that the environmental members of the Board should hold a seminar and teach the volunteers what they need to know to answer questions. This would include information from the Radiation Department and SouthDiv. It could be done on a Saturday morning. The members were asked for a show of hands as to session. The majority indicated they would be willing.

Lou then asked for additional suggestions of how the RAB could be more effective in getting the word out to the public.

Captain Augustin said that on presentations to local groups, there just weren't enough RAB members and BRAC Team Members if the public starts taking us up on wanting to know what is going on and getting involved. He suggested that perhaps a video could be made. You could take it to a meeting, have the people watch it and then have them ask questions instead of doing a slide presentation over and over again.

Susan Floyd said the sub-group also wanted to do some nice colored, laminated posters to put at the malls.

Lou Mintz said the Community Relations Plan was a book that the Navy has to put out as a part of the environmental plan. It is a document on what the goals are and what the expectations are and it lists people who are on the mailing list. The sub-group would like to have it rewritten in a simpler form with no acronyms so that it's not in the military style. He also wanted it rewritten in a briefer format.

He announced that the sub-group had scheduled another meeting for October 11.

There was more group discussion on the "environmental management seminar." Pat suggested the community RAB members "caucus" and brainstorm the items they would like to see in the training session and then once the ideas are presented it can be decided which resources need to be brought in to discuss those ideas.

Doyle Brittain said that EPA was more than willing to help with this.

9. Due to the lateness of the hour, it was decided that the agenda item on the Navy Steam Lease would be postponed until the next meeting. The meeting was adjourned.

10. The next meeting is scheduled for 11 October 1994 at the Marriott Hotel. The meeting will be from 7:00 p.m. to 9:00 p.m. BRAC Cleanup Team members and other RAB members are asked to be on hand from 6:00 p.m. for valuable informal discussions with interested citizens.

13 September 1994

COMMUNITY RELATIONS SUB-GROUP BRIEF
FOR THE RESTORATION ADVISORY BOARD

PROPOSED FACT SHEETS

1. One for an example building:
   - what samples
   - cross-section of space
   - go through entire process - line drawing

2. Restoration Advisory Board (RAB)
   - what it is; what it does; co-chair's phone numbers; who is on it

3. Ten most common questions from the community with answers

GENERAL RULES:

- Big Print
- Easy -to-read
- No EPA/DHEC jargon

Do one for mass mailing. (post card format or insert with bills)

STATUS REPORT SUGGESTIONS

- Plain English.
- Not very technical.
- Taking water samples.
- What we have found to date - yes or no - is it above action level?
- Who - What - When - Where - Why - How?
- Will it affect transfer?
- Is EPA happy with it?
- Approval of future work plans status.

OTHER IDEAS

- Poster Stations at the malls (manned).
- Stand-alone single sheet for various locations.
- Let Navy band carry poster.
- Presentations at community group meetings.
- Statement at beginning of RAB for guests saying what is the purpose.
- Make RAB feel useful - more time for questions (go around the table)
- Television, radio spots (talk radio)
- Environmental Public Affairs Office
- Saturday seminar - let the community brainstorm what areas/subjects they need training

COMMUNITY RELATIONS PLAN

LIKED	WANT TO CHANGE
Naval Support Activity Format	Military slant
	Do not use acronyms
	Bring information up-to-date
	Minimize history (include pertinent stuff)
	Use RAB for community Questionnaire - do in meeting
	Change questions for BRAC

Memo **November 1, 1994**

From: Captain Augustin, Van Robinson
To: RAB Members

Friends,

Our next meeting is on the 15th of November, one week after the General Elections. If you have not received the Draft Environmental Impact Statement, you will get one in the mail soon. They were mailed out on October 28th. Please call 743-9985 if you don't get one.

Discussion on the Draft Environmental Impact Statement will be the principal focus of our November meeting. There is an opportunity to learn a lot about the base and what will occur on the base during redevelopment.

Please read through the Draft Environmental Impact Statement and bring your comments, observations, and questions to the meeting.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 11 October 1994

1. Call to Order. The meeting was called to order by Captain Jim Augustin, Co-Chairperson. He asked that members of the RAB and Guests introduce themselves.

2. Introduction of the RAB.

Captain Jim Augustin	Mr. Oliver Addison
Mr. Van Robinson	Mr. Steve Best
Mr. Lou Mintz	Mr. Bobby Dearhart
Mr. Jacquelyn White	Mrs. Pat Franklin
Mrs. Susan Floyd	Mr. Don Harbert
Mr. Ralph Laney	Ms. Wannetta Mallete
Mr. Ray Anderson	Mr. Arthur Pinckney

3. Introduction of Visitors.

Mr. Joe Bowers	SCDHEC
Mr. Keith Johns	EnSafe,Allen & Hoshall
Dr. Jim Speakman	EnSafe,Allen & Hoshall
Mr. Dave Backus	EnSafe,Allen & Hoshall
Mr. Todd Haverkost	EnSafe,Allen & Hoshall
Mr. H. S. Lemon	Wilbur,Smith & Assoc.
Mr. Tony Hunt	SOUTHNAVFACENGCOM
Mr. Jerry Hudson	SOUTHNAVFACENGCOM
Ms. Thuane Fielding	SOUTHNAVFACENGCOM
Mr. Brad Schwartzman	SOUTHNAVFACENGCOM
Mr. Will Sloger	SOUTHNAVFACENGCOM
Mr. Charlie Black	SOUTHNAVFACENGCOM
Mrs. Jennifer Black	Interested Resident
Mr. Stephen Kelly	Marine Specialties
Mr. George Horres	SCE&G
Mr. Mike Shumake	COMNAVBASE Public Affairs
Mr. John Jones	Richard Catlin & Assoc.
Mr. Jim McNeil	NAVSHIPYD
CAPT W. F. Nold	NAVSHIPYD
Mr. R. S. Acuff	NAVSHIPYD
Ms. Madeleine McGee	Redevelopment Authority

4. Administrative Remarks and Comments on Minutes.

There were no comments on the minutes from the last meeting except to note that answers to Arthur Pinckney's questions had been revised and had been distributed. (The portion that was revised was on Page 3 - Question No. 6.) Arthur indicated he was satisfied with the responses.

Captain Augustin asked that all "Shared Goals and Objectives" sheets be turned in. He also asked that the members turn in their sheets listing questions that they think the public might want answered. He explained that after they are "tallied" a fact sheet would be made up which would give answers to "the 10 most asked questions."

There was discussion on whether to have a December meeting in view of the holidays. The group was split. Some desired no meeting; others a daytime meeting.

The January meeting may be delayed until the third Tuesday in January rather than the usual second Tuesday. The Defense Environmental Response Task Force, wants to hold their quarterly meeting in Charleston and attend our RAB. This is a Congressionally-formed group of high level people from Washington who deal with environmental issues. One of the members is Sherry Wasserman Goodman who is Deputy Assistant Secretary of Defense for Environmental Security. They want to meet with us and find out what's happening here. In order to accommodate that we may need to move our regular meeting to 17 January.

5. Update from BRAC Cleanup Team.

Pat Franklin said that the main item on the agenda was having the BRAC Cleanup Plan revised by 1 March 1995.

Tony Hunt gave the following update on sampling in Zone H. All 180 soil borings have been taken. Installation of all shallow monitoring wells has been completed. Deep monitoring wells have just been started. There are 22 left to do, 8 of them being at SWMU #9 which is the landfill.

A drill rig is on site to demonstrate the rotosonic technique. This is a new technique that uses a rotating hydraulically forced high frequency method of advancing the casing. This is a very expedient technique. It will reduce installation time and soil cuttings which are potentially hazardous waste.

The Cleanup Team feels that all points of contention in the Zone H Workplan have been worked out and hope to have EPA final approval within the next two weeks.

Zone I and C Workplans are essentially complete and have been distributed for Navy review. These were placed on hold because of the problems with Zone H.

We expect Fiscal Year 1995 funding to be available for Zones I and C in mid-October and we don't expect to have any limitations in terms of money available for field work. Data has started coming in. We bave been doing a preliminary screening to determine elevated concentrations of anything we need to look at more closely. We are going to compile that data and map so that it is easily readable and it will be available as our monthly progress reports start coming in.

Lou Mintz asked if there was any feedback on the sampling.

Tony said that some results had been received and they showed the contaminants that were expected to be found. In some cases levels shown are higher than expected such as FBM 61 where they had the 60 thousand gallon oil spill in about 1985 or 1986. They also showed some higher PCB levels indicating there may be another source there.

Captain Augustin asked if there was any more detailed information on what was in the landfill itself.

Todd Haverkost said that in the northeastern portion some solvents were found and the extent of it was being determined. So far there is nothing new, we're just getting a better grasp on it.

In response to a question by Ralph Laney, Todd explained that with using the new rotosonic drill rig the investigative derived waste (IDW) volume would be reduced by 7 or 8 times. EnSafe is trying to reduce the amount of waste being generated by sampling because it costs about $500 per drum for disposal.

Lou Mintz wanted to know if the government was benefiting by the new method. Todd explained that the old method that generated 10 drums took 2 days per hole. Now we're doing 2 holes per day.

Jacqueline White asked how the new drill technique worked. Todd explained that it uses a high frequency technique that displaces the soil as it advances. Instead of having a cutting head on it which cuts a larger borehold, it only displaces the amount it needs for the casing.

Bobby Dearhart further explained that with the old auger method, every foot that the auger goes down produces that much waste. With the new method, the soil is not disturbed and a lot less waste is produced. To further illustrate so that everyone could understand, Dave Backus said it's just like sticking a straw in a bowl of ice cream and extracting the ice cream inside the straw.

Captain Augustin asked where we were on Zones I and C with respect to the Corrective Action Management Plan that was published. Tony Hunt said we were a little behind on initiating field work in I and C, but we are making up time now. Field work in Zone H was scheduled to be complete by March 1995, but we should finish up this month if the deep monitoring wells get going.

Lou Mintz went back to Todd's comment about hazardous waste disposal costing $500 per drum. He wanted to know if it could be cleaned up and reused or could a pilot study be done on this. He said he wasn't just concerned with the $500 per drum, but also with the space the material would take up and the requirement to haul it off.

Todd Haverkost said if a pilot study were going to be done on this, you would have to have the core sample intact. When you extract the Investigative Derived Waste (IDW), normally it gets mixed with soil cuttings and it's not reflective of what's in the soil.

Todd said the other approach to handling IDW was called Corrective Action Management Units (CAMUs). To date there hasn't been one approved by EPA but we're hoping to get those established on the Naval Base and that will allow us to segregate that waste in a given area and once we get the treatment technologies in place we can run that soil through the same process.

Lou Mintz said that should be the goal - not only to keep the soil isolated, but to keep it on Base until it can be decided what to do with it.

Tony said that CAMUs are a new concept and guidelines and policies haven't been established by the EPA. Therefore we have to comply with the normal time disposal limit of 90 days.

Pat Franklin asked Joe Bowers if he knew of anyone in South Carolina that had been using the IDW for their pilot studies. He wasn't aware of anyone but said Todd had mentioned a good point about IDW; that is, once you remove it from the ground you are limited as to the type of studies you can perform and their validity. SCDHEC's regulations are very restrictive on storage hazardous materials. You have very limited options. SCDHEC is more than willing to work with the Base, but they are usually restricted by regulations.

Bernie Acuff commented that the storage would require permitting and that was a long drawn out procedure.

Ralph Laney said the key answer to all of these questions would be to get approval for the Corrective Action Management Unit concept so that the material can remain in a given area.

6. Follow-up on Navy Steam Lease.

Captain Augustin clarified the terms of our lease with Foster Wheeler and what the Navy's responsibilities are under the lease. (Foster Wheeler is the firm that runs the Steam Plant for Charleston County which provides steam to the Base.) The question had come up at the September RAB meeting as to whether the Navy would have to come up with a balloon payment to meet our contractual responsibility and also if the County could then burn trash and make steam and sell it - thereby taking our payoff and making money from someone else as well. He stated that there was no "double arrangement" involved.

The term of the contract is 20 years. It started November 1, 1989. There is a termination clause that says if the Navy terminates and doesn't want the steam, within a year of the termination, the Navy shall make a lump sum payment equal to the steam requirement for the remaining term of the contract times the first tier rate applicable at the time of the termination. As of today, the termination cost or the single payment is $47 million.

We entered into this agreement initially in 1987 guaranteeing a bond issue that was put together to finance the construction of the original Foster Wheeler Plant - a trash-to-steam plant. We signed for an extended period of service in order to guarantee that there would be a continuous revenue stream so people would buy the bonds.

There are no known reusers of the steam today. The contract also calls for Foster Wheeler to enter into negotiations with the Navy on reducing the Navy's termination liability if there is the existence of a replacement eustomer for the steam. The contract speaks to the good eredit of the new eustomer, the demand, and a eontract made with the new customer. It also says that if there is a continued use of the plant to generate steam after the Navy's termination, the Navy's liability would be adjusted by the value of the energy revenues from the replacement energy eustomer(s). So there is a mechanism in the contract that speaks to reducing the Navy's liability if there are other users. There is also a provision for producing electricity to sell back into the grid by the plant which is sometimes done in the summer months. The Navy is eager to work with the Redevelopment Authority or other reusers in a way which makes the most sense for taxpayers and for the reuse of the Base.

Lou Mintz suggested that the Asphalt Dock down the river or the Chemical Plant might be reusers.

Wanetta Mallette asked if the plant would be "dismantled" if no other customers were found. She said it was an eyesore to the community.

It was explained that the Plant probably wouldn't go out of business because we guaranteed them 20 years and after that, Foster Wheeler would own the plant. Right now the County pays for everything that goes on at the plant.

Susan Floyd asked if Santee Cooper had already "moved in."

Captain Augustin said Santee Cooper and SCE&G had looked at taking over electric utilities on Base but nothing has been decided.

7. <u>Redevelopment Authority Perspective.</u>

Ray Anderson said that the Redevelopment Authority had been in existence since August 1994. It currently holds meetings on Tuesday and Thursday at 1:00 pm at the old Naval Hospital and the public is welcome. There was a stipulation in the law that no member of the Executive Committee of BEST could be on the Redevelopment Authority, so most of the time so far has been spent gathering information. Since most of the members are starting from ground zero it will take some time to gain knowledge on all that is going on.

The Authority is broken up into Committees. (He distributed a handout showing the members of the Authority and the Committee members.) The Authority membership is based on 2 and 4 year terms depending on the jurisdiction.

The Authority is forming an Environmental Task Force. There will be 2 members of the Authority on each Task Force.

Whereas the purpose of the BEST Committee was planning, the purpose of the Redevelopment Authority is implementation.

Responding to a question from Van Robinson on the status of the Shipyard reuse, Ray Anderson said that there are three plans for Shipyard reuse at the present time. He indicated that discussions on the plans had to remain confidential until details were worked out, as in any business proposition.

Several RAB members voiced concern that since negotiations were confidential the public really didn't have any input. Ray said that the public had input to the BEST Committee's planning but that these business discussions would have to remain confidential until decisions are reached. He said he thinks good decisions will be made since the Authority is made up of individuals with such diverse backgrounds and expertise.

Lou Mintz said that as soon as a decision is reached it will be in the papers and if the public doesn't like the decision, it can probably be changed. All acknowledged what a difficult job the Redevelopment Authority has before it.

8. Summary of Environmental Impact Statement Contents.

Will Sloger explained that he was in charge of overseeing the Environmental Impact Statement (EIS) at Southern Division, Naval Facilities Engineering Command. The Draft EIS is in the Final Stage. The Final Draft EIS was supposed to be completed and passed out at this meeting but the schedule is about a week or two behind.

The Draft EIS has gone through several iterations. It's been reviewed by the Base Closure Office, CINCLANTFLT, NAVSEA, the Navy in Washington and by all areas of expertise at Southern Division.

As the Draft EIS stands now, there are four alternatives for the Base. One is to do nothing and lock the gate. The other three alternatives are for different levels of reuse. They are based on the work that BEST did. The preferred alternative in the Draft EIS is the proposed use that BEST came up with. The other two are derivations on the alternatives that BEST came up with. One of the things that the Draft EIS had to do was to show full reuse and these two alternatives only showed partial reuse. The objective was that any property that BEST wasn't looking at would be put up for public auction. The preferred plan in the Draft EIS is the one

that BEST has proposed. It is a very good plan. The Navy looked at it from a slightly different perspective than BEST did. The Navy was concerned about not only the effect of the Plan on the environment, but the effect of the environment on the Plan. In looking at the effect of the existing environment of the Base on the Plan there were some modifications that might be in order. Those modifications are dependent on all of the information that is in the early stages of development by Southern Division's Environmental Department. The Draft EIS came up with a contingent Plan that makes a few modifications to the BEST Plan. The contingent plan avoids environmentally sensitive areas including wetlands and vegetative buffer along Shipyard Creek. It also avoids SWMU #9 and SWMU #14, landfill areas that may not be able to be cleaned to levels which permit planned reuse.

The EIS is really a compilation of everything that is known about the Base today.

With regard to the schedule, it has changed. We're behind. We are submitting the document right now to EPA. EPA will then publish a notice in the Federal Register which starts a 45-day public review period. We hope that period will begin on 21 October and last through 5 December. The biggest event during that period is a public meeting at which time people make there concerns known. There will be a public meeting at two locations. There will be one in the afternoon at the Chicora Community Center and one in the evening at North Charleston City Hall. Our current schedule calls for these meetings to be on 16 November. Following the public comment period, which should be early December, the document will go through another evolution where any comment received from the public will be incorporated.

Some examples of what public or regulatory comments might be could relate to transportation or mitigation of wetlands.

If public or regulatory comments are limited, the schedule may be accelerated. The regulatory agencies have been consulted on the Draft EIS and it has basically followed the reuse plan developed by BEST which had community input. The public review period should conclude 5 December. If the revisions are not extensive, the Draft EIS will be submitted back to EPA, then have another public review period and then finalize the document and have a Record of Decision (ROD) issued in early April. A ROD is the Navy's stamp of approval on the proposed reuse and disposition of the property.

The EIS encompasses much more than what we normally think of as environmental issues. It deals with socioeconomic issues, transportation, historical buildings, archaeological concerns, air quality, water quality, endangered species and wetlands to mention a few areas.

Several RAB members were concerned about whether enough testing would be done for the State Ports Authority to make decision on whether or not to come onto the Base and also what would happen if SPA decided not to. The EIS encompasses alternative plans and will be evolving over the next 20 years or so.

Bobby Dearhart commented that every RAB member would get a copy of the Final Draft EIS. He encouraged members to go to the community with it and get comments and input.

Doyle Brittain, our EPA RAB member was not able to attend tonight's meeting, but sent a letter concerning the Environmental Impact Statement and the importance of getting it out to the public. Captain Augustin read the letter in it's entirety and it is included as an attachment to the minutes.

9. Update from Community Relations Working Group.

Susan Floyd reminded members that the minutes from the last sub-group meeting were attached to the RAB minutes. The sub-group is coming up with a fact sheet for the community to get them interested and let them know what is going on at the various sites.

She asked Pat Franklin to explain how the fact sheet was going to be put together. Pat summarized that buildings would be shown in sections so people could visualize what will occur in each phase of the cleanup process. In addition, Pat handed out a number of general cleanup questions and got feedback from the group RAB on which ones they felt should be included in a fact sheet of the most asked questions.

Pat announced that the next sub-group meeting would be on the afternoon of 15 November at which time she hopes to have the final fact sheet ready.

10. Announcement of Next Meeting.

The regular meeting schedule would normally be on 8 November. Due to Election Day, the next meeting will be on 15 November. It will be held at the Northwoods Atrium Inn (Best Western) off Interstate 26 at Ashley Phosphate Road.

11. Adjournment. There being no further business, the meeting was adjourned.

CAPT CEC USN
NAVY CO-Chair

COMMUNITY CO-CHAIR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

4WD-FFB October 7, 1994

Restoration Advisory Board
Naval Base Charleston
Charleston, SC 29408-6100

Dear Fellow RAB Members:

I regret that I am unable to attend this month's meeting of the Restoration Advisory Board (RAB). Since I am unable to be there in person, I have asked Captain Augustin to copy this letter and provide it to each RAB member. I have also asked Captain Augustin to have it read into the record. It is what I would say if I were able to be there. I expect to see you at next month's meeting.

A very important document will soon be distributed. It is called the "Draft Environmental Impact Statement for Disposal and Reuse of the Charleston Naval Base." The name "Draft Environmental Impact Statement" is commonly abbreviated "DEIS." (Remember: government people speak a special language called "alphabet soup.") This document deals with many important issues including the environmental investigation and cleanup, "How clean is clean?" and the Re-Use Plan. I can not over-emphasize how important this document is to the future of Naval Base Charleston and the North Charleston community. I ask that you make it a point to get a copy and review it very carefully. Make sure you understand it. Then discuss it with your family, neighbors, community members, church, social clubs, and anyone else that you represent. Find out what their thoughts and concerns are; most of all, get facts. Then, write a letter stating all of these thoughts, concerns, and facts. Send the letter to the address inside the front cover of the DEIS. Encourage others to do the same thing. Make sure you do this before the deadline.

Don't worry about the quality of your handwriting, spelling, punctuation, or grammar. Don't worry about getting your letter typed. Those things are not important. A sincere letter written on the back of a McDonalds' lunch bag, with poor penmanship, spelling errors and all, will be just as important as a typed legal brief filed by a Harvard attorney. Don't tell us what we <u>want to hear</u>; tell us what we <u>need to know</u>. Just be open, honest, and objective.

Soon after the DEIS is distributed, there will be a public meeting. This is a very important meeting. I ask that you find out when and where that public meeting will be held and then

attend. Bring your friends and community members. Be prepared to speak to your concerns; be prepared to deal with the facts.

We have a monumental task ahead of us, but we can handle it if we continue working together. I am encouraged to see the Navy, State, natural resource trustees, EPA, and community members like yourselves working together on such an important assignment. President Bill Clinton and EPA Administrator Carol Browner are personally keeping an eye on the progress that we are making at Naval Base Charleston.

Call me any time, any where, if I can be of any assistance. My phone numbers are: Athens, Georgia residence: (706) 549-6532; Atlanta, Georgia office: (404) 347-3555, extension 2061; Charleston residence: (803) 745-7606; Charleston office: (803) 743-9985. I am still willing to speak to any community groups who want to talk with me.

Sincerely,

Doyle T. Brittain

Doyle T. Brittain
Senior Remedial Project Manager

Memo **November 1, 1994**

From: Captain Augustin, Van Robinson
To: RAB Members

Friends,

Our next meeting is on the 15th of November, one week after the General Elections. If you have not received the Draft Environmental Impact Statement, you will get one in the mail soon. They were mailed out on October 28th. Please call 743-9985 if you don't get one.

Discussion on the Draft Environmental Impact Statement will be the principal focus of our November meeting. There is an opportunity to learn a lot about the base and what will occur on the base during redevelopment.

Please read through the Draft Environmental Impact Statement and bring your comments, observations, and questions to the meeting.

D R A F T

November 15, 1994

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6 PM *NORTHWOODS ATRIUM* (Best Western) off Interstate 26 at Ashley Phosphate Road- Note this is a change in Location for our meetings

RAB members and the BRAC Cleanup Team on hand to informally discuss cleanup topics.

7:00 PM- Start of Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Update on BRAC Cleanup Plan and Recommended Changes to the Corrective Action Management Plan.....BRAC Cleanup Team

D. Draft Environmental Impact Statement Discussion.....Will Sloger
Dan Castle

E. Review of Fact Sheet 1 - "The RAB"

F. Brief by Bechtel Corp Rep on Cleanup.....Paul Tomiczek

G. Questions and Answers from Visitors

H. Other Business, Announcements

9:00 PM -- Adjournment

Mark your calendar: Next meeting is Tuesday, December 13 at 9:00 on base at the Cooper River Center. Also our January meeting will be January 17th, the third Tuesday and the Defense Environmental Response Task Force chaired by Ms. Sherri Goodman will be present for our meeting.

D R A F T

November 15, 1994

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6 PM *NORTHWOODS ATRIUM* (Best Western) off Interstate 26 at Ashley Phosphate Road- Note this is a change in Location for our meetings

RAB members and the BRAC Cleanup Team on hand to informally discuss cleanup topics.

7:00 PM- Start of Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Update on BRAC Cleanup Plan and Recommended Changes to the Corrective Action Management Plan.....BRAC Cleanup Team

D. Draft Environmental Impact Statement Discussion.....Will Sloger
Dan Castle

E. Review of Fact Sheet 1 - "The RAB"

F. Brief by Bechtel Corp Rep on Cleanup.....Paul Tomiczek

G. Questions and Answers from Visitors

H. Other Business, Announcements

9:00 PM -- Adjournment

Mark your calendar: Next meeting is Tuesday, December 13 at 9:00 on base at the Cooper River Center. Also our January meeting will be January 17th, the third Tuesday and the Defense Environmental Response Task Force chaired by Ms. Sherri Goodman will be present for our meeting.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 15 November 1994

1. Call to Order. The meeting was called to order by Van Robinson, Co-Chairperson. He asked that members of the RAB and visitors introduce themselves.

2. Introduction of the RAB.

Captain Jim Augustin	Mr. Oliver Addison
Mr. Van Robinson	Mr. Steve Best
Mr. Lou Mintz	Mr. Bobby Dearhart
Ms. Jacquelyn White	Mrs. Pat Franklin
Mrs. Susan Floyd	Mr. Don Harbert
Mr. Ralph Laney	Ms. Wannetta Mallete
Mr. Ray Anderson	Mr. Arthur Pinckney
Mr. Jim Conner	Ms. Jane Settle
Mr. Doyle Brittain	Mr. Rob Mitzell
Ms. Ann Ragan	Mr. Wilburn Gilliard

3. Introduction of Visitors.

Ms. Ann Ragan	SCDHEC
Mr. Rob Mikell	SCDHEC/Coastal Resource Mgt.
Ms. Jane Settle	SC Dept. of Natural Resources
CDR Jim Moore	Base Transition Coordinator
Mr. Doyle Brittain	U. S. EPA
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Mr. Ginny Gray	EnSafe/Allen & Hoshall
Mr. Mark Bowers	EnSafe/Allen & Hoshall
Mr. Brad Schwartzman	SOUTHNAVFACENGCOM
Mr. Mike Shumake	COMNAVBASE Public Affairs
Mr. Tony Ott	SOUTHNAVFACENGCOM
Mr. Peter McPheters	EnSafe/Allen & Hoshall
Mr. Jeff Bennett	EnSafe/Allen & Hoshall
Ms. Kim Reavis	SOUTHNAVFACENGCOM
Mr. Dave Backus	EnSafe/Allen & Hoshall
Ms. Ledlie Bell	Interested Resident
Mr. David Walton	SCDHEC
Mr. Joe Bowers	SCDHEC
Mr. Richard Garcia	General Engineering Lab
Mr. Jim McNeil	CNSY
CAPT W. F. Nold	CNSY
Mr. Diane Cutler	EnSafe/Allen & Hoshall
Mr. Keith Johns	EnSafe/Allen & Hoshall
Mr. Bill Hevrdeys	Bechtel Environmental
Mr. Paul Tomiczek	Bechtel Environmental
LCDR Lynn Brown	Base Closure Office
Mr. Churchill Barton	Ecology and Environment
Mr. Bobby Knight	Grassroots Coalition

Mr. Terry Joyce	Charleston News
Ms. Thuane Fielding	SOUTHNAVFACENGCOM
Mr. Tony Hunt	SOUTHNAVFACENGCOM
Ms. Madeleine McGee	CNCRDA

4. Administrative Remarks and Comments on Minutes.

There were no comments on the minutes from the last meeting and they were accepted and will be placed in the Repository.

5. Update from BRAC Cleanup Team.

Tony Hunt provided the following update on the base cleanup. Mr. Hunt provided charts showing status of RCRA Facility Assessment and RCRA Facility Investigation. He explained that the RFA screen sites to determine if an investigation is necessary. The RFI actually accomplishes the investigation. The Zone "H" Workplan was approved by EPA last month.

All the RAB members were provided an RFI status report which provided the progress of each zone and work plan. The status report also provided information in terms of the soil data that has been collected on the particular sites within Zone "H". This is only preliminary data and must be validated by another agency. After validation it is determined to be useful data in terms of risk assessment.

Some contaminants being seen are pesticides and herbicides which are very prevalent throughout many sites. This could be attributed to the pesticides and herbicides that were used in the past that are persistent in the environment and do not break down as readily as pesticides we use today.

MR. MINTZ: Would that be like DDT or something that they're not using anymore?

MR. HUNT: I'm not sure if we have the compound classes specifically identified as of yet. Again, we're going through that process. But DDT is definitely a persistent pesticide.

Mr. Mintz questioned if the document he just received is the final approved Zone "H" work plan. Mr. Hunt responded that it is the approved plan.

Mr. Hunt stated that Zone "I" work plan has actually been submitted today to EPA for review and Zone "C" work plan will be submitted next week.

MR. MIKELL: Does Zone "I" include the areas around the piers or is that in Zone "J"?

MR. HUNT: Zone "I" does include the piers and is at the southern tip of the base. He also stated the Zone "I" works around the perimeter along the Cooper River from Zone "H". Zone "J" is our water body and will be an important ecological concern.

MR. MIKELL: So that would be the actual channel with the river?

MR. HUNT: The channel and any of the water sediment impact from the piers.

MR. PINCKNEY: Can we ask any more questions about Zone "H"?

MR. ROBINSON: Sure you can.

MR. PINCKNEY: I don't have any questions right now. I just need to look at it a little more.

MR. BRITTAIN: I think that's a valid concern. What they have done is they have collected data, they're going to analyze the data. Then they're going to look to see if there are any data gaps. If necessary, then they'll go back and collect additional samples. But just because we have gone through this phase does not mean that we're completely through with Zone "H".

MR. MINTZ: My understanding is that they haven't drilled all the wells and taken all the soil samples in Zone "H".

MR. HUNT: We've taken the initial samples of soil in Zone "H" and we're in the process now of taking our ground water samples. We have installed all of the wells.

MR. MINTZ: You mean you've taken 307 soil sample wells, and dug 300 of those in Zone "H"?

MR. HUNT: There are 82 wells in Zone "H". The numbers that you have are for the soil borings. And those have been taken, yes.

MR. ROBINSON: Do you report or continue to talk to the State Ports Authority as soon as you get these results?

MR. HUNT: We haven't been. I think the intention was that once we get to a point where we were able to define the boundaries of the contamination, then at that point that's the sort of information that the SPA wanted to know.

We've taken that first round of samples. Based on this, we'll be able to develop where we're going to go from here. It would be highly improbable define it in one event. I'd like to be able to do that, but again it's highly improbable.

CAPT AUGUSTIN: I have two observations about what we've done thus far with the Restoration Advisory Board and the RCRA process. The RCRA Facility Investigation Work Plan is the basic work plan that we reviewed in this body. Each of the zone specific work plans then pull on the basics that were set up in the overall RCRA Facility Investigation Work Plan for that specific zone. And those specifics we're looking at now with you.

For the benefit of our visitors, the things that were shown here in Tony's report are actual things found. The preliminary analytical results in Zone "H" reveal herbicides, pesticides, volatile organic compounds, and semi-volatile organic compounds. I have a question for Tony if there were things found which were not expected? Or were the things that were found consistent with what you would expect for the various solid waste management units being previous landfill sites or spill sites?

MR. HUNT: In one case I know of in particular, we found total petroleum hydrocarbons where we were expecting PCBs. So our analysis that we've been using basically looks at several different ranges or different compound subsets. By doing this, we're able to find other compounds that may be present that we didn't initially think would have been there.

CAPT AUGUSTIN: In that particular case finding what you found was less of a contaminant than finding PCBs?

Mr HUNT: It's less of a concern from toxicity standpoint than the PCBs were.

MR. GARCIA: Are you going to continue to investigate all the different areas or are you going to start implementing some remediations once the RFA and the RFI are completed? What is the plan at this point? And when will it actually happen?

MR. HUNT: We're looking into the process that we can follow for removal actions now. We intend to sit down with the State and EPA and develop a list of candidate sites. It's a little bit difficult under RCRA, because you don't have an established process to go through as you do in CERCLA for removals. Essentially you have to have a site that poses an imminent and a substantial endangerment to strictly follow the RCRA guidelines. So we're working on a process that we can implement for these removals.

Some of the sites, such as the unexploded ordnance, can be pursued by use of the Navy unexploded ordnance teams without specific regulatory authorizations. So these are going to go forward.

MR. BRITTAIN: The next step is to develop a corrective measures study work plan for those areas after the RFI has been finished

to determine what kinds of remediation we want to consider for each of these hazardous waste sites.

There will be a public hearing when we will present the selected remediation to the public, to give the people the opportunity to speak their mind on it. They can either say, "Yes, we agree, proceed with that corrective measure for this certain site," or they may say, "No, we favor this other." As a result of what the public concerns are, the regulators which include EPA and DHEC in consultation with the Natural Resource Trustees, will make the determination as to what kind of corrective action will be taken at each of those sites. That will be the one that we'll go with.

MR. SLOGER: (Provided an update on the EIS process): There are three alternative plans for re-development of the base which are primarily based on the alternatives that the BEST Committee developed.

Alternative one is essentially taking the asset management plan, which redevelops 500 acres of the base, leaving 1,000 to be dealt with in another manner. We took that plan and came up with what we anticipated would be the most likely development for the remaining 1,000 acres. The resulting 1,000 acres that BEST didn't take would be put up for public auction.

Alternative two is community reuse, as BEST called it. In that plan BEST used 1,000 acres. We again followed through with that and developed the remaining 500 acres. Again, that remaining land could ultimately be put up for public sale.

Alternative three, which is the preferred alternative in this document, is the recommended plan by BEST. The only change to that alternative is alternative 3-A. Alternative 3-A was developed because of a couple of things the BEST plan didn't do. We needed it to look at the environmental impacts of the plan on the base as well as the impacts of environment on the plan. Some of the major things that we did in Alternative 3-A were to leave SWMUs 9 and 14 undeveloped. SWMU 9 is the large landfill on the back side of the port terminal area. At this point we're not certain whether you can develop in that area or not. But our intent was to see if you could leave that area undeveloped as well as SWMU 9 and still keep all of the major aspects of the plan intact.

This plan moved the Intermodal Railyard, rearranged the configuration of the Industrial Park on the back side of the port terminal and moved the bulkhead line of the port terminal further out into the Cooper River. What that does, is reduces the impacts on wetlands. Previously Plan 3 fills 77 acres of wetlands. Plan 3-A would only fill 9 acres of wetland. However, it increases the amount of Cooper River that's covered from 80 acres to 130 acres.

The rest of the EIS deals with existing conditions on the base and the environmental consequences and mitigative measures of the actions that are shown in this document.

I've brought some comment forms to pass out which are basically the forms that we'll be passing out at the public hearings on November 28th and 29th. What I was hoping you could do is take these forms, write down your comments and mail them in to us. It would be very helpful to us in refining this document.

As Captain Augustin and I discussed last week, obviously minutes are being taken from this meeting, however this is not really one of our public hearings, and therefore the minutes don't really constitute formal comments on the EIS. So I would ask you to write your comments down on these forms or any piece of paper for that matter or come to the hearing and speak up in public. The hearings are Monday the 28th and Tuesday the 29th of November. The first one is at the Chicora Community Center at 7:30, on Monday the 28th. And on the 29th, we're having a hearing at 7:00 at the North Charleston City Hall.

MR. ROBINSON: In alternative 3-A if you have to take 50 more acres of the Cooper River, what different problems do you run into environmentally?

MR. SLOGER: Our feeling was that biologically those 77 acres of wetlands were of higher value than 50 acres of the Cooper River. As you know, that whole area has diminished annually. We didn't do a terribly indepth study of what all is in that section of the Cooper River. Basically, our feeling was that the environmental impact was less to the area by doing that. So I guess we considered it a trade-off. And we do look to Jane Settle and the rest of the regulatory community to express how they feel about that.

MS. SETTLE: I would agree with that. I'd much rather see the 77 acres of wetlands revision. I guess the primary question that there would be in my mind, is whether there would be any navigation implications from the additional extension out into the river towards the channel. Are you far enough away?

MR. SLOGER: I'm not really sure how far but we're not into the channel.

MS. SETTLE: I don't remember what the distance is from the outermost edge of the pier on 3-A to the edge of the channel.

MR. SLOGER: 3-A moves that bulkhead line out 200 feet beyond where it is in Plan 3. There are a couple of diagrams in the back of the document that I think really show the impact of that movement. The bulkhead line is actually inside the area that's encumbered by the existing pier. There are existing piers that stick out further beyond where that bulkhead line needs to be. If you look at Figure 4-9, you can see that about half a dozen piers actually extend beyond the new bulkhead line as we've laid it out.

MS. BELL: Is the reconfigured extension into the Cooper River basically the same as one of those earlier versions during the base reuse? Rob Mikell may remember at one point they were projecting an A-front out over the Cooper, and then they pulled back from that.

MR. SLOGER: I think it is actually. One of those earlier plans had considerably more than 80 acres of the river covered.

MS. BELL: And I know it was discussed by the Coastal Council.

MR. MIKELL: I don't know whether it's larger or smaller. Let me ask one thing, too. If you do extend it out, is the EIS the appropriate place to study these alternatives. I think navigation is a definite concern when you're sticking something that close to a bend in a river. Especially when you're trying to develop a port facility where you're going to have a lot of vessels around it. The other issue is if you're sticking a pile-supported structure out of this side, you're also likely to affect the hydrology and the shoaling patterns of the river. And I think those things need to be studied as well.

There's a statement in the EIS that it would have insignificant effects on the river. And I don't think that statement could be justified without doing some studies.

MR. SLOGER: Keep in mind Plan 3-A is a contingent plan. The whole point was to rearrange things to take into account potential impacts if certain areas can't be developed, If you want to do certain things, you're right, it would require further study.

MR. MIKELL: I understand the concept of staying away from the old landfill because remediation costs might be too much or it might be a lot of problems. But might that also not cause long-term environmental problems to the base if it's not remediated?

MR. SLOGER: Oh, we're not implying that action wouldn't be taken in that area. We're just suggesting that perhaps whatever that action might be might preclude development. We're not certain of what impact it might have.

MR. ROBINSON: Might not be able to build over it.

MR. SLOGER: It's really all kind of a what-if scenario.

MR. ROBINSON: What will it look like to our visitors if that alternative method is chosen? When you're riding over the Cooper River Bridge, will the structure look bigger, the State Port's Authority?

MR. SLOGER: I'm not sure you would really be able to tell any difference. The port terminal is certainly well over 100 acres and I'm not sure that a 200-foot realignment would be noticeable.

MR. CONNER: What advantage do you have, outside of gaining some property, of moving the bulkhead out 200 feet?

MR. SLOGER: Reduced impact to wetlands from 77 to 9 acres.

MR. CONNER: How are you going to do that when right now we're having to dredge around the Naval Base in that area almost year round.

MS. SETTLE: Once a year.

MR. SLOGER: I'm talking about wetlands on the backside of the base. I'm not talking about the Cooper River side of the base.

MR. CONNER: In other words, you're going to build the bulkhead out 200 yards around the pier and help the backside of the base? That's what you're purporting?

MR. SLOGER: Yes.

MS. SETTLE: I have not had time to get into the document as much as I would like to. I didn't understand that a bulkhead would be moved.

MR. SLOGER: When I say bulkhead line, I'm assuming that the most likely type of construction would be pile-supported, a marginal wharf type of construction.

MS. SETTLE: So you wouldn't actually have that whole area filled and bulkheaded?

MR. SLOGER: Correct. I would assume that the existing bulkhead line would remain the same.

MR. MINTZ: But the total distance out is not as far as the docks are now. The docks will still come back in some so that we're not restricting any of the traffic on the river any more than it is now where the ships are.

These are the distances that the bulkhead goes out. If it isn't the bulkhead, it's still less than what the docks go out now, so that the river would not be restricted in its activity or flow. In fact, it might even help it, because it would give it a better bend.

MR. SLOGER: Well, I think Mr. Mikell's point was that you're not going to have quite the flow under this area that you would

otherwise. Much like the existing piers where silt piles up under the piers.

MR. MIKELL: One answer to Jim's question. By extending it out, there are advantages to dredging, because you don't have to dredge as much if the wharf is farther out. But those figures, I think, need to be quantified. If you extend it out 100 feet, how much less dredging is there? And how much environmental damage is there to the loss of habitat and that sort of thing? If you extend it out 200 feet, how much dredging do you save? I think dredging is a big issue in the whole redevelopment of the base and the EIS. I think that needs to be addressed a little more too.

MR. CONNER: The part I was concerned with is now we pull the ship in to the pier. Actually, we pull it into the land. When you build a new bulkhead, you're going to be out past that. And really in some cases could be in the channel.

MR. BARTON: It's important to note, that the configuration shown in Figure 4-9 is a generalized conceptual configuration. In the final design, who knows what the exact configuration may be. So I just wanted to mention that we're not proposing a design for the actual wharf here, just a conceptual location. And the driver behind that was to show that there's a flexibility in the reuse plan to accommodate these areas that the US EPA, Pat and Bobby had expressed concern about. There's some areas we still don't know, we may have to leave open for future remediation to take place. And we're trying to show in Alternative 3-A that there is flexibility still in the plan to move things somewhat.

MR. CONNER: I just wondered if there was a real good reason of why we were moving it out. And he pretty well answered that. I wonder about that like I do the marina. On every plan we've had, they want to keep that marina. And then they've got to cover it up with the State Ports Authority so you can't get to it. That doesn't really make sense to me.

MR. SLOGER: No. I think actually you can get to the marina. If you look at Figure 2-5, the marina is really down at that southern most corner of the base. It would still work with the Port Authority there also.

MR. CONNER: You could propose another road down to the marina and not use the existing road that's going down there now.

MR. SLOGER: That's correct.

CAPT AUGUSTIN: Figure 2-5, if everybody would look, does show ships at the marginal wharf base, not in the channel. I would think we would have some comments from the State Ports Authority on

the general workability of this for vessels. And again, as it was already pointed out, there's no full engineering design on this. This is all conceptual. The need for a turning basin or whatever else might have to be in the river to accommodate the port, I think would be a comment by the State Ports Authority.

MR. SLOGER: As well as the Corps of Engineers.

CAPT AUGUSTIN: I think the concerns that have been brought up are very valid on a number of different areas. And those are the kind of things I think we expect to come in the regular comments, either written or at the public meeting.

MR. ANDERSON: Does the Alternate Plan 3-A have the same acreage for the Ports Authority as the approved plan?

MR. SLOGER: Yes.

MR. BARTON: All of the different components of the reuse plan developed by BEST are in Alternative 3-A. Each component, Marine Industrial Park, Cargo Terminal, et cetera, all contain the same acreage that they did in the BEST plan.

MR. SLOGER: 363 acres.

MR. ROBINSON: I thought there was some discussion about instead of going into the Cooper River, taking some of the adjacent land in case you couldn't build over the landfill. Was that considered in the alternate plan?

MR. SLOGER: I don't know how seriously anybody's ever discussed that.

MR. PINCKNEY: Did the Redevelopment Authority and BEST have prior knowledge of this plan?

MR. SLOGER: We had some brief discussions with the staff of the Redevelopment Authority.

MR. PINCKNEY: The reason for asking this is that it appears as though you have the plan here. But what was actually happening happening. With what I've heard in the media and other things, the folks that were supposed to be looking for a shipyard weren't looking for a shipyard. And you have in the plans a shipyard that you're going to develop.

MR. SLOGER: I think your concern is a valid one. Part of the problem with what we're doing is that we're producing a document which in large part discusses someone else's action, not the Navy's. So our intent is to satisfy NEPA. And in doing that,

sometimes we may not be able to deal with the details of a shipyard as deeply as the Redevelopment Authority can. Our intent is to examine the impacts of the action and to see what the consequences are and to determine what, if any, mitigative actions might be necessary.

I understand what you're saying, and it's a problem that we argue over every day. Why are we even doing this? But that's really superfluous to the whole action. Our charter in following NEPA is a little different from the Redevelopment Authority's actions in developing the base.

MR. PINCKNEY: I guess you said that you're questioning whether you should be doing it, but what I'm saying that if you're doing it, then after you get through with your plans, the folks, if it's the Redevelopment Authority, are supposed to follow plans. Therefore they'll have to go out and seek whatever information they need so this plan could be followed. And it appears as though this is not happening from what I've seen in the media. Do you understand?

MR. SLOGER: Yes. We're trying to dovetail our plan as close as we can with what the BEST committee came up with, as well as what the Redevelopment Authority's following up with.

MR. PINCKNEY: The plan looks good. It's just are we following it up as far as trying to implement it?

MR. SLOGER: I don't think I'm the right person to answer.

MS. McGEE: By virtue of putting on that piece of paper the area marked as the shipyard, reflects BEST's original intent and an intent adopted by the Authority to pursue the development of a private shipyard there. And that is happening. There's been some discussion as to the effectiveness of that methodology. But I think that the fact that the plan is there and that they are proposing that as the plan to be adopted by the Navy is reflective of their commitment to try and make a shipyard happen in that site.

MR. BEST: If the 3-A plan doesn't fully materialize, with the Redevelopment Authority and the BEST Committee, what obligation does the Navy have beyond what you've done here?

MR. SLOGER: I think it depends on the timing. If there are some changes in this plan and we haven't gotten to the final EIS or even to the ROD signing, then we would modify the EIS to match whatever changes occurred. And if those changes occurred after the ROD, perhaps we might do a supplement to the EIS. If those changes occurred after the Redevelopment Authority took possession of all this property, we probably wouldn't do anything.

MS. McGEE: Perhaps you should explain when it's likely that that conveyance will happen. Given the environmental cleanup required, it's likely that portions of the base will not be conveyed for 5, 10, 15, 20 years. The Authority is currently operating under the assumption that in order to reuse significant portions of the base in the near term, they will have to lease those portions of the base and will have to operate under this reuse plan.

MR. SLOGER: That's correct. And once the ROD is signed, the Navy would not be in a position to turn over the entire piece of property in one chunk. I think it will occur in pieces over time, depending on cleanup actions, and other remedial activities.

MR. BEST: What you're saying is you have a clear intention to update the EIS as changes occur, if it's different from Plan 3-A up until a certain end date, which you say is the ROD?

MR. SLOGER: That's why we're having a public hearing for instance.

MR. BEST: The reason I'm asking is that you seem to have done a very thorough job of analyzing the impact of the current plan that really isn't in place yet. And so if it doesn't happen this way, you are fully capable of continuing your study on whatever does happen within certain time constraints?

MR. SLOGER: Yes.

MS. McGEE: If a significant change is made in the Reuse plan that will require the EIS to be revisited. One of the drivers in the development of those land use categories was to keep them as broad and as general as possible to allow the flexibility needed to develop it and not have to go back through an environmental assessment or another EIS. If we were to change the shipyard to put a recreational facility with tourism, hotels and restaurants, that type of thing, we may have to change the Reuse plan. Significant alterations could cause significant time delays in the process.

MR. SLOGER: That is a fairly accurate statement. That's why these diagrams, Figure 2-5, for instance, are just large color-blocked areas to try to indicate general uses of specific areas, but allow some flexibility within the development plan.

MR. BEST: Did I understand correctly that about half of the budget for the BEST Committee went into the EIS?

MR. SLOGER: Our finances have always been totally separate from BEST's.

MR. BEST: Are there any funds associated with helping this study, funding any kind of activity that might pick up some slack where the Navy might not be able to do? What I'm thinking of there is if something happens and we exceed a certain date because of cleanup and the Navy says, well, that ends that ROD date, is there any money that might do studies of this nature from any other source besides the Navy?

MR. ANDERSON: I think we'll have to take a look at that on a case-by-case basis. It's certainly the Navy's responsibility to clean up the base. All of us are waiting to see how that's going to develop. There may be some areas of the base that won't ever be redeveloped because it's just not economically feasible to clean up. And we realize there's a possibility of that. So when we get all of the assessments in and have a chance to get the broadbase picture of it, I think we'll be able to respond a little better.

MS. BELL: Technically the Navy has that responsibility, legally it has that responsibility. So it isn't able to cost shift as it were; is it?

CAPT AUGUSTIN: Are you speaking to the cost of cleanup or to the cost of EIS?

MS. BELL: When Steve Best was asking the question about if the Navy were short on some of the actual cost of cleanup, whether the Authority could step in and augment it?

CAPT AUGUSTIN: I think there is confusion. I read Steve's question to be one of funding for the environmental impact statement as unrelated totally from the cleanup cost of the base.

We talk all the time about environmental impact statement. Essentially we're doing that in accordance with the National Environmental Policy Act because we're disposing of the property, not because we're cleaning the property up. So an environmental impact statement is separate from the other things that we've talked about tonight in working under the Resource Conservation and Recovery Act, RCRA, and the pure cleanup of the base, two totally different actions. They are related in some extent based on Steve's comment about a concern for continuing this funding.

The Navy is responsible to go with the requirements of this law for large actions, this being one of disposal of the base. The reuse plan forms what the new owner will do. The Navy is not the new owner, so we can't speak to Arthur Pinckney's questions about getting on with the various parts of that plan.

There are a lot of different things happening at the same time. The Navy is taking on extra duty in doing an EIS process on the potentially new owners' plan. But that will speed the entire

process for the redevelopment of the base and is the right thing to do overall for the federal government here in Charleston.

MR: SLOGER: I'd like to follow up on Mr. Best's thought. I think our office would be very much willing to enter into discussions with the Redevelopment Authority on funding any additional work.

MR. JOYCE: What happens with this Scenario 3-A in the event the Redevelopment Authority simply rejects it and goes back to Scenario 3?

MR. SLOGER: Plan 3-A is there as an option in case circumstances don't allow Plan 3 to be developed. It's not there as a plan that they have to follow.

As Tony Hunt was saying earlier, an awful lot of data still needs to be acquired to know how the cleanup will go. So that's why Plan 3-A in as an option. But Plan 3 is the preferred plan.

MR. BARTON: The Navy's interest in presenting Plan 3-A along with Plan 3 is to shoot for a ROD that offered the most flexibility.

MR. GARCIA: If there's so many areas of concern, so many SWMUs out there, and so many contaminants as Mr. Hunt just stated that hadn't even been determined to this point, how can we be establishing an EIS at this time? There's so many unknowns still out there. You are able to handle an EIS is when you at least understand all your contaminants in all your potential areas. But with so many unknowns still out there, all you're doing is trying to support a plan that BEST has put together so far and trying to push it down our throats.

MR. BARTON: The document is a very dynamic document. It's a snapshot in time currently. Our description of what's happening in the RFI process was based on our last set of discussions with Tony and others before we produced the draft EIS. When the final EIS comes out, which is somewhere around January, it will be substantially altered and it's based on what new information we have. And it is a difficult overlap in time, trying to push out an EIS in final form, at the same time the RFI action is going. So you end up with one document that has several caveats.

Again, the overall goal is to accommodate the work that the community has done in developing a Reuse plan so that the Redevelopment Authority can get the plan implemented.

MS. McGEE: If the Navy sat back and waited till it had all the information on all the environmental conditions, at the end of '96, create a plan that took us a year to complete, and then the Navy has a year by law to do this EIS after we give them the plan, it would be December of '98 before we could create the first job. So by allowing us the flexibility of working without knowing all of

the environmental conditions and the flexibility to adjust to information as we obtain it, we have the chance to lease property that may hopefully be clean enough to reuse and create jobs now, not four years from now. It's a major improvement in the way the Navy is doing base closure from the way they did it for the 1988 and 1991 closure communities. It's one of the changes President Clinton put in a year ago. And it's what hopefully will make reuse possible while we're all working on it as opposed to when the next generation is supposed to work on it.

MR. SLOGER: One thing about this document that is a little misleading is that when you look at Figure 2-5. Figure 2-5 is a layout that probably won't look anything like that for 20 years. And it's going to take many, many years to develop. The Port Authority is not going to start building that entire thing; it's planned to be in a series of phases. A lot of the study and cleanup action is going to be occurring at places that need it, so development can be proceeded. So everything on this plan isn't occuring at the same pace. It is a very long-term plan.

MR. BRITTAIN: I'd like to address your comment, Richard. We have a lot of hazardous waste sites at the base. There's a lot that is not known at the base. But over the last two years, I've worked with Bobby and Pat, worked with David Walton and Joe Bowers, Ann Ragan, Tony Hunt, and a number of other people. We have walked every square inch of that base. We have talked to many of the old timers that were there. We have researched the files and we have done everything that we possibly can to identify what all of the hazardous waste practices were, historically, at this base. So we know what industrial practices have gone on there. And we know what they did with the waste when they got through with them. Now, what are the concentrations out there? We don't know. How much has this stuff migrated? We don't know that either. And that's what we're doing under the RCRA facility investigation. But when we talk about the fact that there's a lot that is not known, it's not one big question mark. Because there's more that is known than what is not known.

As far as the reuse plan, we have talked in great detail about each of these hazardous waste sites. What are the problems there? What is going to be involved in cleaning it up? We have good reason to believe that with some reasonable amount of time and money, we can clean up all of those hazardous waste sites with some question about SWMU 9 and SWMU 14. I am the reason you've got Alternative 3-A. Because in looking at that, I said I'm not sure that you can do anything other than put a slurry wall around it, a pump and treatment system in it, and a RCRA cap on it. And whether Redevelopment Authority or anyone else wants to reject Option 3-A, the fact of the matter still comes down to the fact that ultimately the regulators and the natural resource trustees are going to make a decision as to what will or will not

be done with SWMU 9 and SWMU 14. Then people can make the decision as to what use they're going to make of those SWMUs as well as the rest of the base. So what we have tried to do is come up with a reuse plan that can be implemented at sometime in the future. There are no magic boundaries on any of these hazardous waste sites. But we know pretty much what's there. There's not going to be many surprises. The only question is: What's the concentration? And what's the boundary? And we can figure that out pretty quickly and pretty easily.

We feel very comfortable at this point in time saying that the reuse plan can be implemented as long as you've got Option 3-A in there. But you've got to remember this is a concept. And you can't go in there and start saying that you've got to stick to this rigid boundary that has been identified.

I'd like to say one last thing. There are three important meetings that every one of you need to attend. You need to bring your friends, your neighbors, and everyone else. One is the meeting that Will talked about a minute ago. The EIS Public Hearings will be at the the Chicora Community Center November 28th, and the North Charleston City Hall on the November 29th.

It is very important that you come to that. And any concerns that you have about this environmental impact statement, you need to address at that time. Whether they are positive concerns or whether they are negative concerns, you need to come and you need to speak to those at that time.

There will be another public hearing that's going to be held after we have done the corrective measures, in which case we're going to give you the opportunity to select which cleanup method we're going to be using at these hazardous waste sites.

And the third one is when we are modifying the permit. There will come a time in the near future when we're going to have to modify the hazardous waste permit. We hope that you will come and speak to any concerns that you have on that. Those are three important meetings that the general public needs to come and be heard as to what your concerns are on these issues.

MR. KNIGHT: Mr. Brittain, you said that you checked all the hazardous areas on the base. I notice on your map at the head of "G" pier, it's some unexploded shell ordnance. Some of the older maps say that is mustard gas. It seems like the new '94 maps are different from the '86 maps.

MR. BRITTAIN: We've got maps going all the way back to 1902. I've worked with Mr. Drose over in Public Works. We've looked at all of those maps and researched that. That's the best information that we have. If anybody has any additional information, please tell me. I would rather know everything about these hazardous waste sites. If you any information or maybe look on the map, if we overlooked a hazardous waste site, tell me. We'll go check it out. I have heard that about the mustard gas, but I have never found

that in the records anywhere, in the files anywhere, or in the maps. And we've gone back on maps to 1902. But I appreciate you bringing that up.

MR. KNIGHT: I'll get you a copy.

MR. SLOGER: If there's anyone here that wants to review this document, if they'd give me their name and address at the end of the meeting, I'll be glad to send them one.

CAPT AUGUSTIN: The rest of the environmental impact statement schedule was provided to me by Will Sloger. We diagramed it out concluding with a record of decision on the environmental impact statement done in the springtime. For your benefit, you can see we're in the middle of the 45-day review period in the center of the diagram.

MS. FRANKLIN: (Pat Franklin provided an overview of Fact Sheet 1, RAB. Copies of Fact Sheet 1 were passed to RAB members.) Our subgroup started out this afternoon and went through the RAB Fact Sheet. We mentioned this at the last meeting. I'd like you to read Fact Sheet 1 and make any comments you'd like.

We would like to be able to mail this out to everyone on the mailing list and have it available on the table at our meetings for people who come in. If you go out and talk to people you may want to carry a stack of them. And if people say what's a RAB? You can say this is what a RAB is. We tried to keep it without acronyms and in layman's terms, tried not to say RFIs, RCRAs, RODs.

MR. CONNER: It looks mighty good. The whole thing does. I think you did an outstanding job.

MS. FRANKLIN: I'll say thank you to my subcommittee here. They did the work. There's one already in the repository. That's the blue sheet when we first started into Zone "H" earlier this year. The subcommittee thought we should start numbering them sequentially. So if people start getting them and they're missing some in sequence, they could call and get copies of ones they were missing. So this one is now Fact Sheet No. 2.

MR. CONNER: The only thing that possibly you might want to put on there was when we were established.

MS. FRANKLIN: As far as the date our charter was signed or our first meeting was signed?

MR. CONNER: Whenever we come into existence.

MS. FRANKLIN: We'll see if we can find the a spot and add that in.

CAPT AUGUSTIN: The one that I chopped before did have the date that we had been meeting since March of 1994. We'll back check and make sure that it is included.

MR. MINTZ: It could go under, What is a RAB?

MS. FRANKLIN: Our Fact Sheet No. 3, which we had at the last meeting, is the vote on the most commonly asked questions that we get about base cleanup which you voted on at the last meeting. And it's not quite ready to pass out. We did a lot of work on it. But I thought I would at least tell you what questions came up based on the results of your voting last week.

1. How long will it take to clean up the naval base?

2. What type of jobs particularly in terms of salary will replace the lost Navy jobs.

3. Has any contamination been found that's hazardous to people or the environment?

4. What's the schedule for cleanup activities?

5. How many places at Naval Base Charleston need to be cleaned up?

6. What will be the environment of the base when the Navy leaves?

7. How much will the cleanup cost?

8. Who has to pay for the cleanup?

9. How can we be sure that the Navy and other experts are telling the truth?

Those were your top questions that came up on our survey last time and we worked today hashing out all the answers on it. We hope to be able to present this in a similar format as this other one at the RAB meeting in December.

MR. MINTZ: If the RAB members want to look at the questions before the night is over, we can stay around long enough to let them look.

If any of the RAB members would like to comment on any of these questions, on the answers, it's probably a good time to get them tonight rather than wait till the next meeting.

MS. FRANKLIN: Other items that the group is working on and we'll be talking about at our next meeting are:

We had discussed a mass mailer that would go out just to broadcast a little more about the Restoration Advisory Board and what we're doing, and try to get more people enthused in to the meetings. We have a draft.

Also we received a draft on our sample site of doing a visual of what happens to a site from defining it until when it gets cleaned up. We went through the cartoon pictures at the last meeting. We have a draft of that in today as well.

Our future item is working on revising the community relations plan, based on all the new information that we've received.

CAPT AUGUSTIN: What about showing the names of the RAB members on our information sheet that are from the agencies, the Navy and the other agencies that participate?

MS. FLOYD: What's your input? Do you think everyone should be on there or not?

CAPT AUGUSTIN: No.

MS. FRANKLIN: Are there other sentiments that we think everyone's name should be on there?

MS. SETTLE: The first page says that it's a group of citizens, Navy, city, state and Environmental Protection Agency personnel, and that suits me just fine. But for the interest of people who are looking at this, knowing who that agency person is might make a difference.

MR. MINTZ: The criteria that we used for listing the names is if you change jobs, you're not going to be on the RAB anymore. If we change jobs, we'll still be on the RAB. That was the dividing line. We had to play King Solomon somewhere. Now, if that's not right, we'll be glad to change it. But if Captain Augustin gets transferred, he's not going to be on the RAB anymore.

MS. FRANKLIN: We looked at several options. And we felt this was more to go out to community people so they would know their friends and neighbors, that might be involved. That they could talk to or know about.

A brief by Bechtel Corporation representative Paul Tomiczek was presented on what this company's involvement as the Response Action Contractor (RAC) is. Mr. Tomiczek is a senior project manager for Bechtel in their Oakridge office.

MR. TOMICZEK: I'd like to discuss the remedial action program that Bechtel will be involved with here in Charleston. Bechtel was one of two companies that were selected to perform remedial action for NAVFAC Southern Division. We have Division One and that includes

the states of North Carolina, South Carolina, Florida, and Georgia.

My purpose tonight is to give you an introduction to Bechtel as a company. Let you see how we're organized. And how we propose to execute some of the work here in the Charleston area.

Bechtel is a privately owned company. It was formed some 96 years ago. Riley Bechtel, CEO, is also on the President's Environmental Advisory Committee, and is quite involved in the remedial cleanup of our nation's waste.

We have a worldwide operation and have adequate resources, to help solve some of the Navy's problems here in the Charleston area, as well as in this southeast Region One.

Our headquarters are in San Francisco. Our major office that will be of concern to you here in Charleston will be our Oakridge where we have some 550 of the 29,000 employees of Bechtel located.

We have five bases where we are planning to establish a presence. And by presence that means relocating our staff to operate in that area. We have Charleston, Jacksonville, Orlando, Key West, Albany, Athens, and then finally Pensacola. And we have individuals who have been designated to head up the effort that will be conducted in these areas.

Larry Schracner and myself will head the Charleston Office. So we're going to be a part of you. We plan to be a part of you and we're looking forward to working with you as the program develops overall.

The program overall is a 300-million-dollar contract. We're looking at approximately 60 million dollars a year through all these bases. The awards last year were somewhat of the order of 12 million across all of our five sites. So as you can see, we're already behind a power curve if we're going to achieve what was the goal of the program itself. This year thus far we have not had any additional releases of any funds. So we don't have any additional work that we are trying to get under way.

The Navy has designated that we will perform our work in three phases. The statement of work will be issued to Bechtel. And then that statement of work will include some of the information that you've been talking about tonight as far as specific plans being developed on how you're going to remediate and what the accepted solution is to a particular problem. We get this statement of work which will define for Bechtel what we're supposed to do. And we will review the data that's available. Get out to the site, do a walkover of the site and make sure that we understand the specifics of this particular site. We will do a review of the technology to make sure that technology hasn't changed from the time that the reports were issued and the designs were rendered. And that there's not a better way of doing it that has come down the pike. If there is, we will try to have that adopted.

After we've done the phase one, we then go into the phase two. During this phase we do the necessary preconstruction submittals, develop our subcontracts, and specific work plans as to how it is

that we're going to execute the work that we've been assigned. And then actually get out and do the initial subcontract solicitation which is everything short of an award. Much the same as the Navy, we cannot award a contract until we have been approved and have the funds that we can then award to our subcontractors.

During that phase we then prepare the phase three estimate. The phase three estimate is how we are going to actually do the work. That's the final part where we mobilize and perform the site work, when it's completed and accepted, demobilize. If it involves any kind of long treatment program such as an operation and maintenance of a water treatment system or a soil vapor extraction system or anything of that sort, then there would be an operations and maintenance addition that would be phase four and a phase five. But that's generally in a nutshell the way we plan to operate.

MS. FLOYD: You had mentioned in your earlier slide about subcontracting. Are those your people? Or will you be looking in the Charleston area to employ some of our people to work with you?

MR. TOMICZEK: We're looking for, in this case, Charleston people to work with us. We do have a subcontract right now with GEL right down the road. We do have three or four subcontract packages that are out on the street for small business. And we're looking to obtain our input from the local populous. We plan to work with the local small businesses and local individuals who are qualified to offer the service. We want to see the money come back here.

MR. JOYCE: How much money are we looking at here over the long haul? Where are you in the contract portion with the Navy? You're working for the Navy here, not the RAB, I understand?

MR. TOMICZEK: I'm working for Bechtel. Our contract is with the Navy.

MR. JOYCE: How much money are we looking at here probably to clean up Charleston?

MR. TOMICZEK: I can't give you an answer to that, sir.

MR. JOYCE: How far along are you to getting an answer?

MR. TOMICZEK: I don't have to get that answer. It's a matter of getting the designs and getting the statements of work for a specific task to be performed. If I look at the specific tasks to be performed, I could be working here for another 10 years or so. And that might be at a rate of, perhaps even with as much as 30 to 40 million dollars a year. You can make guesses as well as I can, sir.

MR. JOYCE: That's a guesstimate on your part then?

MR. TOMICZEK: That's a guesstimate. Solely a guesstimate. I have no factual estimates because I do not know at this point in time what specific task will be assigned that we should clean up.

MR. JOYCE: I'm just curious to how far you are into that three-step phase there in connection with Charleston?

MR. TOMICZEK: We've had three projects in the Charleston area. One is the project that we are presently working on, the interim hazardous waste storage facility of the Naval Weapons Station. That project is under $200,000 for cleaning up some contamination so that the area can be released for free general use.

Second project is some removal of some (10) tanks at the Naval Base.

And the third project is the round house project at the Naval Weapon Station which includes the clean up of the round house area along with some other outlying buildings.

We have gotten into Phase 3 on that. We have not seen the funds to do anything on them though.

MR. JOYCE: You must have a contractual arrangement of some kind then that calls for a certain dollar amount.

MR. TOMICZEK: Our contractual arrangement is the 300 million over five years over all five of those bases.

MR. JOYCE: So that's all of them?

MR. TOMICZEK: Yes, sir. That's the parameter. And whether Charleston gets the money or Pensacola gets the money or Jacksonville gets the money I think is largely a matter of how soon the designs are ready, and the Navy can then give us a statement of work to build upon. And if I can give any encouragement at all to the group here, that's to speed the process up and get the designs completed.

MS. FRANKLIN: That was one of our questions that we mentioned as one of the most commonly asked questions. And right now we cannot say what that final cost is going to be until we complete the investigation. If you took a typical site, right now you don't know if you have to remediate 10 cubic yards of material, or if it's going to be 100 or if you're talking about a couple of acres. And so there's just no way to narrow that cost down until we finish up this investigation work and until we get the recommendations from the community on the type of technologies that they're going to be approving. It'll cost one thing for one type of technology and a different cost for a different type. With all those variables, we cannot come up with a quote, "final dollar amount," at this point.

MR. TOMICZEK: I might point out here too though that the contract is like a cup. It can hold 300 million dollars worth of work, that's the capacity of it. But that's no commitment on the part of the Navy or the government to fill that all the way to the top. It's all subject to the fund availability. So that could very well turn out to be only half full at the end of five years or it could be full.

MR. JOYCE: If it were only half full, you would only be obligated to do half the work.

MR. TOMICZEK: That's correct. And that would preclude most likely my team from moving here. One of our concerns right now is: How fast is the work coming? So as to physically relocate here, and have sufficient workload identified that warrants that kind of a move. That is expensive.

MR. JOYCE: But correct me if I'm wrong, you're not committed to do anything here in Charleston beyond those 10 tank removals at the moment?

MR. TOMICZEK: At Charleston Naval Base that's the only contract that we have.

MS. MARTIN: I'd like to make a little bit of a clarification. Paul works for Bechtel which is doing the actual cleanup. Before they can do the cleanup, we have to define what the contaminants are and basically what the limits are. So their work is going to always come behind what the RFI part of the work or the actual study side of the work is doing.

We don't have to get all the way into design like it used to be. We've come up with measures to try to do smaller bites that we can define and contain and let them get started. The fact that they don't have very much right now is because of where the study is. As soon as the study progresses on, mainly through '94, and probably half of the year of '95, then we will be able to take bigger chunks and give it to Bechtel to do, because we'll have a better definition of what needs to be cleaned and how to clean it.

MR. CONNER: Mr. Tomiczek, you're the holder of the cup. If we do fill the cup, you're the one that gets to empty it for however you see fit as far as getting the work done. But now are there any other cups? Is there somebody else out there with a contract? Or is he the only contractor?

MS. MARTIN: Not in the Charleston area.

MR. CONNER: In other words, you are the man that's going to get it cleaned up for us if anybody does then?

MR. TOMICZEK: That's correct, sir. That's why I say I look forward to being here on numerous occasions as we go forward the next five years.

MR. CONNER: Well, I'll look forward to you hiring an awful lot of people in the Charleston Naval Shipyard area that have lost their jobs and are looking for a job. And so I think you can do an awful lot for our community. And I just wanted you to know that I expect that. And I'm sure the rest of these people do too.

MR. TOMICZEK: And to the extent that we have the qualifications and the technical abilities to perform, we certainly will hire as our requirements dictate. And I plan to be a homeowner here as well as a tax payer in South Carolina.

MR. CONNER: That's the only part that bothers me. If you're going to move down here and stay, and we're wondering how long it's going to take to really clean up our area.

MR. TOMICZEK: It's going to be part of my area too.

MR. CONNER: You're wanting to be a Charlestonian. Well, I think that's great. Except go ahead and get this job done, we'll find another one for you if you do this one right.

MS. WHITE: You mentioned areas like Albany, Athens, and Pensacola. Are these military installations?

MR. TOMICZEK: They're Navy and/or Marine.

MS. WHITE: Are they on the closing list?

MR. TOMICZEK: Some of them are. Some of them are not. Some of them have hazardous waste that needs to be cleaned up from some of the air field operations.

MS. FRANKLIN: Just to answer your question. His contract is not limited to just the closing bases. And I think Charleston is your only closing. The Orlando training facility is going.

MR. ANDERSON: Your company designs the remedial action and then does the remedial action?

MR. TOMICZEK: No. We take the design from the design contractor. The Navy, NAVFAC has two design contractors onboard that I'm aware of, EnSafe and ABB. They do the design, and then as each of the packages are prepared for a design package that can be scoped out with a definitive work effort, then those are made available for us to then go through the phase one, two, and three. We do not do the

design. That's definitely a conflict of the procurement governing federal procurement roles.

CAPT AUGUSTIN: I passed around to everybody at the RAB table a compilation of what you told me you thought the community's top three concerns were. I noticed tonight as we spoke, some eyebrows went up when one of the questions of the nine most-asked questions was about jobs. But, in fact, one of the reasons why this exercise is good; we can't, as a RAB, decide how we want to communicate with the community unless we know what the community is thinking about. And it was pretty clear in what you-all told me you thought was on the community's minds, that environmental as a first thing is not on the community's mind. And hence, the questions that we've had come in. It turned out there were really only two things that were in all of your responses to me. The first one being jobs. And the second one being jobs. The first one was: What types of jobs will replace the Navy's jobs and how much will they pay? And the second one was: Will base environmental conditions restrict job creation?

So you can see right away most of the things that we put out as a RAB and try to educate the public and have them understand what's going to go on with the cleanup of the base will have to answer those concerns, along with providing other information. And I think as we go along in time the community will go past those concerns and come to other concerns that are more purely environmental. But up front, thinking about what's on the community's mind will help us focus our message to them, in particular the questions that we're going to try to answer and pass out on our fact sheet.

Secondly, on a shared vision, I again compiled what you told me you saw as the RAB's mission. And I asked you to state it to me in a particular way from the standpoint of having been done. As if tonight's was our last meeting, the base was all cleaned up, and we had completed the process as a way to look at it. And it says when the cleanup process is complete, the community will be able to say that the environmental cleanup and the RAB's involvement was successful and characterized by the following and again, this is our combined vision condensed down into just a few bullets. Number one, the community was able to understand what was going on and made inputs on cleanup decisions. Two, and this was a direct quote from one of the particular pages that I received; Life and jobs were enhanced because of the cleanup.

Number three, the cleanup was timely and complete.

And Number four, the Navy's and the community's best interests were served.

So I mirror that back to you as things that you-all told me. And again, I condense as how we as a group see the role of the RAB and the work that we do around this table.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 13 December 1994

1. **Call to Order.** The meeting was called to order by CAPT Jim Augustin.

2. **Introduction of the RAB.** Since this was an abbreviated session, introductions were not made.

RAB Members Attending

Capt Jim Augustin
Mrs. Susan Floyd
Mr. Lou Mintz
Mr. Arthur Pinckney
Mr. Steve Best
Mr. Van Robinson
Mr. Ralph Laney
Ms. Jacquelyn White
Mrs. Pat Franklin
Ms. Ann Ragan
Mr. James Conner
Mr. Ray Anderson
CDR Ray Downs
Mr. Bob Veronee
Ms. Wannetta Mallette

Visitors Attending

Mr. Todd Havercost
Ms. Thuane Fielding
LCDR Lynn Brown
Mr. Austin Hilligas
Mr. Robert Pidget
Mr. Jim McNeil
Mr. Mike Schumake
Ms. Diane Cutler
Ms. Kim Reavis
Mr. Jim Beltz
Ms. Ledlie Bell
CDR. Jim Moore
Mr. Milton Lombard
Mr. Terry Joyce
Mr. Keith Johns

3. **Administrative Remarks and Comments on Minutes.**

Minutes from the November RAB meeting were given out. CAPT Augustin asked members to review and give him comments.

CAPT Augustin gave copies to RAB members and guests of a book that Doyle Brittain of Environmental Protection Agency had sent, "Guide to Environmental Issues."

4. RCRA Facility Investigation.

CAPT Augustin introduced Thuane Fielding from Southern Division Naval Facilities Engineering Command. Thuane gave a briefing on the status of the RCRA Facility Investigation. See Attachment 1.

Lou Mintz asked if we had found any surprises yet. Thuane said there had been no surprises.

Susan Floyd asked if the sampling information could be sent to the RAB members so that they can review it prior to the meetings. Thuane agreed to see if that would be possible. Thuane said she would send copies of the proposed Corrective Action Management Plan (CAMP) to the RAB members.

Lou Mintz asked if they were going to get copies of all of the work plans.

The consensus was that RAB members did not want copies of all the work plans.

CAPT Augustin explained that copies are available to the RAB members and would also be in the repositories.

Thuane was asked how many SWMU's we had. She later provided the following information:

Total number of SWMUs to date:	193 (Solid Waste Management Units)
Total number of AOCs to date:	201 (Areas of concern)
Total number of NFI sites to date:	163 (No further investigation required)

Lou Mintz recommended keeping a "box" score for the number of SWMU's and AOC's and the number proposed for no further investigation.

Several comments were made about an environmental cleanup status report. Stephen Best had asked for a spreadsheet format. Pat Franklin explained that her community sub-group planned to discuss the format and information needed in the status report during their meeting later today.

Lou Mintz asked how long we would look for unexploded ordnance before we give up.

Thuane said we would use an ordnance detachment to find it.

Ann Ragan stated that a procedure would be followed for unexploded ordnance similar to other sites. In the event that searches show no ordnance, the state and EPA would agree when we could write the site off.

Jim Conner asked if the Navy had coordinated with the Redevelopment Authority on sampling and cleanup priorities. Thuane explained that the priorities were set with input from the BEST Committee and the RAB,

Ray Anderson said that he thought the Navy was following the RDA's priorities, but would like the process to move more rapidly.

CAPT Augustin reminded everyone that the re-use of the shipyard and other existing facilities is not constrained by environmental issues. We can use interim leases.

Jim McNeil said that he would provide an update on the radiological surveys in February. The Navy is approximately 50% finished with the surveys. They have worked out a schedule with DHEC and EPA to do confirmatory sampling next year to verify the Navy's results. DHEC has been in and reviewed the procedures. EPA has been in three times. Results so far involve finding only four locations in and around shipyard drydocks with traces of very low-level Cobalt-60 radioactivity. These are being removed. A briefing on General Radioactive Material Survey will be provided at the February RAB meeting.

Jim was asked for a written progress report RAB review at the January RAB meeting.

5. Update on Draft Environmental Impact Statement.

CAPT Augustin asked Pat Franklin to give an update on the Draft Environmental Impact Statement. Pat reported that at the Public Hearing on November 28 at the Chicora Community Center, there were 14 citizens and four gave comments. At the November 29 Public Hearing at North Charleston City Hall, there were 11 citizens and three gave comments.

Will Sloger from Southern Division has only received written comments from three people/groups.

Someone asked how comments would be answered. There will be a formal response published with the Final Environmental Impact Statement.

It was suggested that Will send a personal letter to a community commentor thanking them for their interest.

Arthur Pinckney asked if Will had received his questions. He sent eight questions form the Grass Roots Coalition. Pat said she would check with Will. Arthur would like a written response. He provided copies of his questions to the RAB. A copy is attached. See Attachment 2.

6. Community Relations.

CAPT Augustin recognized the efforts of the community relations sub-group in completing the first RAB fact sheet. Copies of the fact sheet were given out. Extra copies were given to RAB members for their constituents.

Lou Mintz and Susan Floyd thanked the Navy for responding to the RAB's request for an environmental Public Affairs Officer and designating Mike Shumake.

It was suggested to send a copy of the RAB fact sheet with the Monday Report next week.

7. Defense Environmental Response Task Force (DERTF).

Pat Franklin led the RAB in a brainstorm exercise to come up with ideas for the DERTF. A copy of these is given in Attachment 3.

In order to be prepared for the DERTF presentation, a working session was scheduled for January 6 at 2:00 in the Basement Conference Room of NH-45. Any RAB members interested in helping with the presentation should attend.

8. General Comments from the Audience.

Ledlie Bell said she agreed with the RAB's emphasis on money issues when the DERTF is here. Other suggestions she had were explaining the frustration of the community learning curve, staying away from the history of BRAC-93, lobbying for the continuation of a dedicated EPA person on-base, and requesting the re-authorization of superfund legislation.

9. Closing Comments.

CAPT Augustin mentioned that NOAA has moved on base and includes an individual looking to foster start-up companies in the commercialization of

innovative technologies for remediation. Depending on their emphasis we may want to have them give a presentation at a future RAB meeting.

CAPT Augustin reminded everyone of the next meeting - January 17, 1995 at 6:00 at the Northwoods Atrium Inn.

The meeting was adjourned.

UPDATE ON ENVIRONMENTAL CLEANUP

Restoration Advisory Board Meeting
December 13, 1994

ACTIONS OCCURRED SINCE LAST RAB MEETING

- The following documents have been submitted for Regulatory Review:

  Volumes I-III of the RCRA Facility Assessment (RFA)
  Proposed revision to the Corrective Action Management Plan (C.A.M.P.) - the project schedule
  Zones I and C RCRA Facility Investigation (RFI) Work Plans

- Notification of 4 additional Solid Waste Management Units (SWMUs) has been made to Regulators.

- Zone H Groundwater Samples' Data

ACTIONS PROJECTED

- Receive Regulatory Approval of the following documents:

  Volumes I-III of the RCRA Facility Assessment (RFA)
  Proposed revision to the Corrective Action Management Plan (C.A.M.P.) - the project schedule
  Zones I and C RCRA Facility Investigation (RFI) Work Plans

- Begin Field Investigation Phase for Zones I and C provided Regulatory Approval is given.

  PROPOSED NUMBER OF SOIL SAMPLES AND MONITORING WELLS

  Zone I: 130 Soil Sample Locations
  54 Wells (Shallow/Deep)

  Zone C: 122 Soil Sample Locations
  31 Wells (Shallow/Deep)

- Volume V of the RCRA Facility Assessment (RFA)

Grassroots Conversion Coalition
35 Race Street • Charleston, SC 29403 • (803) 723-4436

December 10, 1994

Commander, Southern Division (Attn: William Sloger)
Naval Facilities, Engineering Command
2155 Eagle Drive, P.O. Box 190010
North Charleston, SC 29419-9010

Response to the Draft Environmental Impact Statement for the Disposal and Reuse of the Charleston Naval Base

To Whom It May Concern:

The Grassroots Conversion Coalition, an association of church, civil rights, neighborhood, and labor groups, would like to raise the following concerns and questions regarding the Draft Environmental Impact Statement (DEIS) prepared for the Charleston Naval Base. Robert Knight, speaking for the Coalition at the public hearing on November 29, raised some of these issues but there are a few additional concerns we would like to raise here.

1. Given that the Reuse Plan for the base is "conceptual" and that no detailed engineering plans have been done for any of the reuse scenarios, the DEIS states that it is "difficult to formulate exact impacts" (DEIS: 4-15, 4-24, 4-31). Given the lack of specificity of the current environmental impact assessment, as actual developments are proposed, supplemental environmental impact statements may be required. For example, if a private company intends to service or refuel nuclear vessels, it is essential that this specific plan initiate another environmental impact assessment process so that the public may have a say in actual base reuses that represent significant impact on the community. What criteria or processes have been established to determine what kinds of future developments on the base would trigger supplementary environmental impact assessments? What avenues for public oversight and involvement will be made available as specific reuse opportunities arise?

2. The DEIS does not address health impacts on base workers or local residents due to exposure to toxins nor does it mention remediation of these impacts. The communities represented by our Coalition strongly feel that documenting and

Attach. (2)

remediation of the impact of contaminants on people is at least as important as documenting and remediation of their impact on water, soil, vegetation, and animals. When will epidemiological studies and plans for remediation be conducted and made available to the public?

3. When will public meetings be held to discuss the results of the Resource Conservation and Recovery Act Facility Investigation, the Risk Assessment, and the Corrective Measures Study (p.3-104)? Publicity for the public hearings for the DEIS was not adequate to convey to broad segments of the community the significance of their participation. The scientific information involved in environmental impact assessments is often intimidating and alienating for community members and special measures must be taken to present this information in an accessible way and to clarify why public participation is needed. The Coalition recommends that publicity and outreach be improved for subsequent public hearings, including TV News, radio PSAs, large ads in the local papers, and targeted mailings to community organizations.

4. We find the section on Environmental Justice (p. 5-9,10) to be inadequate. In this section, it says that "Specific mitigation measures to minimize impacts to minority and low income communities are included in Section 5 of this DEIS": but no such information is indicated anywhere in section 5. Nor is there any substantial information documenting the specific impact of base closure and reuse on low-income and communities of color anywhere in this DEIS. Further, minority communities and low-income communities have not had "adequate access to public information relating to human health or environmental planning, regulation, and enforcement" (5-10) in one very important respect — these communities are not adequately represented on nor do they have adequate access to the Charleston Naval Complex Redevelopment Authority which is charged with redeveloping the base in a way to minimize adverse effects on low-income and people of color communities as on the environment.

5. The Cleanup Team for the base presented in writing to the Restoration Advisory Board assurances that the base would be cleaned up thoroughly to background levels so that contaminants would not foreclose on any future development opportunities. However, on p.4-95, the DEIS indicates that Solid Waste Management Units 9 and 14 containing hazardous waste would likely be capped rather than removed, "thus precluding intensive development." This information is both inconsistent with information we previously received (in a correspondence dated May 9, 1994) and is inconsistent with the community's objectives to ensure future development opportunities. Our position is that the entire base should be cleaned up to residential standards: anything short of this would eliminate certain future use options and therefore cheat the community out of potential economic benefits. The final EIS must address this issue explicitly and indicate what other contaminated sites are proposed to be contained rather than removed, as well as how these remediation measures preclude certain kinds of future use. The public also needs to know how any capped sites will be monitored and how frequently.

6. Why is it that the "RIMS model" for estimating job creation predicts that more indirect jobs will be created from fewer direct jobs through base reuse than were generated by a larger number of direct jobs when the base was in full operation? What variables is the RIMS model based on?

7. We find the section addressing job creation through the cleanup of the base to be vague and inadequate (p.4-67). From the single paragraph that addresses this issue, it suggests that the only employment generated by the cleanup would be taxi drivers, hotel housekeepers, cooks at Shoney's and the like. In accordance with the Boxer Amendment of the 1994 Defense Authorization Act, there must be a clear commitment to retraining and hiring displaced base workers for all aspects of the cleanup process. A thorough cleanup of the base is not only essential for optimizing future reuse options, but is also a crucial interim employment opportunity for displaced base workers. Training base workers for environmental cleanup is also a key way to build their skills for long-term re-employment. The public needs to know what specific steps are being taken to retain and retrain base workers for cleanup, who is being contracted to do this cleanup work, where they are based, and who they will be hiring to do the work. This information should be made explicit in the final EIS.

8. Is the Navy currently in compliance with the Clean Water Act? If not, what are the plans to bring it into compliance prior to the base transfer? Who will pay for bringing it into compliance with state and federal standards? It would be helpful for the final EIS to clarify in a table which federal and state environmental regulations the base is in compliance with and which ones not.

We look forward to receiving a written response to these questions and to seeing these concerns addressed in the final EIS. Thank you for your time and consideration.

Sincerely,

Mr. Arthur Pinckney
Chair of the Coalition

CHARLESTON RAB QUESTIONS FOR DERTF: 14 DEC 94

WHAT DOES NEXT ROUND OF BASE CLOSURES LOOK LIKE

WILL $$ BE AVAILABLE FOR LONG HAUL (HAVE AVAILABLE EARLY)

FEEDBACK MECHANISM TO DERTF ON HOW RAB'S ARE DOING

IS EVERYONE ON DERTF ONBOARD AND THINKING THE SAME (FOCUSED AND OF ONE MIND)

REQUEST PRIORITIZING BRAC 93 OVER BRAC 95 - $$ - RESOURCES

WHAT IS BEING DONE TO GET LESSONS LEARNED DOCUMENTED AND OUT TO OTHERS

DOES DERTF ENVISION CHANGE IN LAWS/POLICY DUE TO $$ CONSTRAINTS

WHERE HAS DERTF BEEN AND WHAT HAVE THEY LEARNED THAT THEY CAN SHARE WITH US

HOW COMMITTED ARE DERTF

ANY CHANGES IN LAWS/POLICIES THAT WILL AFFECT THE BASE

HOW SERIOUSLY DO THEY TAKE RAB'S - SUPPORT, FUNDING FOR RABS AS OTHER FEDERAL AGENCIES DO

WHAT CAN THEY DO FOR US

GET RESUMES OF DERTF MEMBERS

Attach. (3)

WHAT MESSAGE (INFO) DOES THE CHARLESTON RAB WANT TO GIVE THE DERTF IN JANUARY

PROVIDE CLEAR-CUT IDEA OF MAGNITUDE OF JOB HERE

IMPROVE MECHANISM FOR DISPENSING FUNDS - DON'T HAVE TIME TO WAIT

SUMMARIZE WHAT RAB HAS DONE (INCLUDE QUESTIONS THAT HAVE BEEN ASKED)

PAINT PICTURE THAT RAB IS INFORMED

RAB HAS UNIFIED GOAL

HOW SERIOUS WE ARE ABOUT OUR ENVIRONMENT

BELIEVE WE ARE MAKING ACCEPTABLE PROGRESS

CONCERNED THAT OUR ACTIONS ARE SAFE AND LEGAL

WHERE ARE WE IN THE WHOLE SPECTRUM (%)

ENVIRONMENTAL CLEANUP IS NOT HOLDING UP REUSE/JOB CREATION

FAST-TRACK IS NOT AS FAST AS WE WOULD LIKE ($$)

UTILIZE CNSY PRIOR TO "DYING" - NOT HAVE TO RESURRECT

GET COMMUNITY MORE INFORMED (MANDATED)

RECOMMEND OPEN HOUSES FOR PUBLIC WHEN A BASE GOES ON BRAC (MONTHLY)

SAFETY OF COMMUNITY IS PRIORITY

RAB IS MADE UP OF EVERYDAY PEOPLE

WHAT HAS FAST-TRACK DONE FOR THIS BASE AND WHAT WILL IT DO IN THE FUTURE

RCRA PAPERWORK IS "VOLUMINOUS"

CHARLESTON CHOSEN TO BE A MODEL BASE

ONCE BLDG CAN BE LEASED - FAST-TRACK GETTING IT REUSED

HARD AND FAST TIME LINE

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0160
08 MAR 1995

Mr. Doyle Brittain
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: FORWARDING OF THE MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT.

Dear Mr. Brittain:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of February, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Monthly RCRA Facility Investigation Progress Report - February, 1995.

Copy to:
SCDHEC (Mr. Joe Bowers)
COMNAVBASE (N34)
COMNAVBASE (N4BEC, Dearhart)
COMNAVBASE (N4BEC, Franklin)
SOUTHNAVFACENGCOM (Hunt)
SOUTHNAVFACENGCOM (Fielding)
E/A&H

RFI PROGRESS REPORT
PERIOD: SUMMARY OF
01 FEBRUARY 1995 TO 28 FEBRUARY 1995

I. INTRODUCTION

The following status report has been prepared to provide a monthly update on the progress of the RFI to members of the Naval Base Charleston (NAVBASE) BRAC Cleanup Team (BCT). Information provided in the monthly progress reports will also be summarized on a quarterly basis to satisfy condition II.E.3.a of the Part B Permit Renewal. This monthly status report has been prepared in a format similar to the quarterly report to help ensure that information pertinent to the RFI is transmitted to the BCT members on a more timely basis.

II. PORTIONS OF THE RFI COMPLETED

- Soil sampling continued in Zone H in an effort to complete the delineation of the extent of contaminants.

- The *Final Zone C and I RFI Work Plans* were submitted to USEPA and SCDHEC on 01 March 1995. Also included in the submittal was a formal response to comments indicating how the agencies comments were incorporated into the documents.

- Soil sampling was initiated in Zone I on 8 February 1995 in accordance with the *Draft-Final Zone I RFI Work Plan* and per changes made to that document to address the USEPA and SCDHEC comments.

- The *Draft-Final Zone E RFI Work Plan* was submitted to USEPA and SCDHEC for review on 17 February 1995 for review and comment.

- The *Draft Focused Field Investigation Technical Memo* was submitted to the Navy for internal review on 17 February 1995.

- Preparation of the *Draft Zones J and L RFI Work Plans* continued as scheduled.

- Preliminary data compilation for development of the *Draft Zones A and B RFI Work Plans* was initiated on 13 February 1995.

III. SUMMARIES OF FINDINGS

The quarterly status report submitted in January 1995 included a summary of the findings (based on analytical data) to date at the sites investigated in Zone H. The information presented in that summary has not changed; therefore, a new summary of analytical results has not been included this month.

Preliminary review of hydrogeologic data obtained from the monitoring wells in Zone H indicates that two distinct water bearing zones may be present between ground surface and the upper contact of the Cooper Marl (Approximately 45 to 60 feet below ground surface in Zone H depending on location). Separating the two water bearing zones is a predominately silt/clay layer which appears to be acting as an aquiclude, at least in the vicinity of Zone H.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The previous status report included meeting minutes through December 1994. The minutes of the January 1995 meeting are provided in Attachment A. The minutes of the February 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

- Potential data quality problems have surfaced with the dioxin fraction of both the soil and groundwater data generated for Zone H. The independent chemists validating the analytical data have tentatively identified some discrepancies with the manner in which the laboratory performed the analyses and the protocol specified in USEPA Method 8290. Dialog between the validator, the laboratory, and EnSafe/Allen and Hoshall contracts personnel has been occurring to determine if a problem truly exists. In the interim, a total of 9 samples were collected from 5 locations which represented the "worst case" highest concentrations identified to date and sent to an independent laboratory to gain an appreciation of whether the original data set contained false positives. The second set of data confirmed the results of the initial samples.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report

to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The Draft RFI Work Plans for J and L will be submitted to the Navy for internal review. Additionally, the *Draft Final Zone L RFI Work Plan* is scheduled to be submitted to USEPA and SCDHEC in March.
- The *Draft-Final Focused Field Investigation Technical Memo* will be submitted to the USEPA and SCDHEC for review and comment.
- Preparation of the Draft RFI Work Plans for Zones A and B will continue.
- Revisions to the Final Comprehensive RFI Work Plan will be submitted.
- The Corrective Action Management Plan (CAMP) will be updated to reflect schedule changes.
- Preparation of the Draft Zone H RFI Report and the Draft CMS Work Plan will begin.
- Validation of the Zone H data is expected to continue.

Field Activities:

- Sampling in Zone H to fill data gaps will continue.
- The second quarter of groundwater sampling in Zone H is scheduled to begin in March.
- Sampling in Zone I will continue and sampling in Zone C is expected to be initiated.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily

records have not been included with this status report, however, this information is available for review upon request.

Attachment B is a copy of the analytical data generated to date. The printout was generated from the project analytical data base as it was provided electronically from the laboratory. The data is presented in the form of sample delivery groups (SDGs) which typically represent a set of twenty samples (less than twenty samples may be included but never more than twenty). The SDG format was selected because it represents the manner in which the laboratory managed the samples, reported the sample results, and subsequently how the samples are being validated. Future submittals will be sorted by site to facilitate review of the data. The previous status report indicated that a number of SDGs have been validated and the process of entering the qualifiers into the project database was underway. In summary, the current status of the Zone H data is as follows:

- Data received, validated, and qualifiers entered into the data base. Sample delivery groups CHS 01, 02, 03, 05, 07, 08, 11, 14, 15.

- Data received, validated on hard copy, and qualifiers are yet to be entered into the data base. Sample delivery groups CHS 04, 06, 09, 10, 12, 13, and 16 through 28. Sample delivery groups APX 01 through APX 15, TSU, and TTN.

- Data that was recently received, loaded in to the database for preliminary use, and in the process of being validated is found in sample delivery groups CHS 29 through CHS 33.

At the present time, all data included in the attachment should still be regarded as preliminary and used for informational purposes only. Note that question marks appear in place of sample results in many instances in the print outs. This indicates that either the sample was not analyzed for that parameter (not all samples were analyzed for the same suite of compounds; however, the database still includes a complete list of parameters) or a second set of data may exist for that parameter due to reanalysis of the sample (as in the case of sample dilutions when compound concentrations exceed instrument calibration ranges).

At the present time, no data has been received from the Zone I soil samples.

ATTACHMENT A

Minutes of 17 January 1995

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 17 January 1995

1. Call to Order. The meeting was called to order by Mr. Van Robinson, Co-Chairperson. He welcomed the members of the Defense Environmental Response Task Force (DERTF) and other visitors. Members of the RAB were asked to introduce themselves.

2. Introduction of the RAB.

Mr. Van Robinson, Co Chair	Mrs. Susan Floyd
Captain Jim Augustin, Co Chair	Mrs. Pat Franklin
Mr. Steve Best	Mr. Wilburn Gilliard
Mr. Doyle Brittain	Mr. Donald Harbert
Mr. Ralph Laney	Ms. Jane Settle
Mr. Bobby Dearhart	Mr. Robert Mikell
Mr. Lou Mintz	Mr. Arthur Pinckney
CDR Ray Downs	Ms. Wannetta Mallette
Mr. Ray Anderson	Ms. Ann Ragan

3. Minutes of the previous two meetings were approved and will be placed in the repositories.

4. Because of the extremely large attendance visitors were not asked to introduce themselves at this meeting. However, the following visitors attended:

Sherri W. Goodman	DERTF Group
Paul Yaroschak	DERTF Group
Thomas Edwards	DERTF Group
Elliott Laws	DERTF Group
Lucreatria Holloway	DERTF Group
Jack Ellis	DERTF Group
Seth Low	DERTF Group
David Way	DERTF Group
Blake Velde	DERTF Group
Elizabeth Osenbaugh	DERTF Group
Bob Carr	DERTF Group
John Carr	DERTF Group
Pat Rivers	DERTF Group
Shah Choudhury	DERTF Group
Beau Mills	DERTF Group
Jon Johnston	USEPA
Cary Jones	DERTF Group
Paul Reimer	DERTF Group
Jeffrey Smith	DERTF Group

CAPT Richard Rice	DERTF Group
Jim Woolford	DERTF Group
Lee Cooper	DERTF Group
Ted Zagrobelny	DERTF Group
Brian Zwit	DERTF Group
John Cox	DERTF Group
Phyllis Buland	DERTF Group
David Platt	DERTF Group
Patrick Tobin	USEPA
Diane Cutler	EnSafe
Ron Williams	EnSafe
James Speakman	EnSafe
Todd Haverkost	EnSafe
Jeff Bennett	EnSafe
Ginny Gray	EnSafe
John Blagg	EnSafe
Steve Green	EnSafe
Peter McPheters	EnSafe
Wayne Fanning	SC DHEC
David Walton	SC DHEC
Joe Bowers	SC DHEC
Harry Mathis	SC DHEC
Rick Richter	SC DHEC
Jerry Hudson	SOUTHNAVFAC
Tony Hunt	SOUTHNAVFAC
Kimberly Reavis	SOUTHNAVFAC
Sid Allison	SOUTHNAVFAC
Thuane B. Fielding	SOUTHNAVFAC
Charlie Black	SOUTHNAVFAC
Jeri Johnson	CNC Redevelopment Authority
Austin Hilligas	CNC Redevelopment Authority
Ledlie Bell	NOAA
Earle N. Buckley	NOAA
Bobby Knight	Grassroots Conversion Coalition
Florence Gardner	Grassroots Conversion Coalition
Hubert Dixon III	Grassroots Conversion Coalition
Gary Genda	US Energy Corporation
R. E. Ruys	Concerned Citizen
B. M. Amphed	Concerned Citizen
Ivy Patterson	Concerned Citizen
Alvra Rissined	Concerned Citizen
Clark Hobbie	Concerned Citizen
Rachel Phillips	Concerned Citizen
Patricia Phillips	Concerned Citizen
K. Ross Newland	Concerned Citizen

Barbara Campbell	Concerned Citizen
A. C. Mitchum	N. Chasn City Council
Tiki Whitfield	EPA Atlanta
Mike Shumake	Environmental PAO Naval Base
Jim Beltz	Chasn Base Closure Office
LCDR Lynn Brown	Chasn Base Closure Office
CDR Jim Moore	Chasn Base Closure Office
CAPT W. E. Nold	CHASNAVSHIPYD
Jim McNeil	CHASNAVSHIPYD
Kristine Kingsy	USAEC,APG,MD
Hans Anderson	AFUTEC OL-DH
Joe Marino	Native Soils, Inc.
Barry Lester	Wright Padget & Assoc., Inc.
Darrell DeHaven	NRRO

5. Update on Environmental Cleanup.

For the benefit of many newcomers to a RAB meeting, Tony Hunt started by explaining that the Naval Complex had been divided into Zones for purposes of the Facility Assessment. Mr. Hunt pointed out the maps around the room which would show the zones he would be discussing. In order to arrive at zones, such factors as geographics, and areas which would be available for similar use, were used. For example, the fenced boundary of the Controlled Industrial Area (CIA) of the Shipyard was chosen as a zone in itself. Also, tracts that were thought to be non-contaminated parcels and easily transferred were grouped, such as Zone D. Mr. Hunt called attention to the Monthly RFI Progress Report that was handed out. The Monthly RFI Progress Report was handed out and is attached to these minutes. The Monthly RFI Progress Report was handed out and is attached to these minutes.

Mr. Hunt explained that the Facility Assessment was not looking at the zones sequentially, but rather there was a great deal of overlap in that three or four zones were being looked at concurrently. It was easier to divide the Base into zones to begin the work and then manage them in groups.

The first phase of the Resource Conservation and Recovery Act (RCRA) Process is the RCRA Facility Assessment (RFA). Currently four volumes of the RFA are soon to be approved. Volume V, which contains an additional 15 sites, is being prepared.

The RCRA Facility Investigation (RFI) has a Comprehensive Work Plan which has all of the elements of the process that are common to each zone. It then has site specific work plans which contain specific site contaminant sampling information. Minor revisions are now being made to the Comprehensive Work Plan based on information which was not available when originally prepared.

It gives the current status, zone by zone, and also projects activity prior to the next RAB meeting.

Lou Mintz asked Mr. Hunt if any storm water from the Base emptied into Zone J (water bodies) and, if so, had the storm water been tested. Mr. Hunt explained that water did empty out but no testing had yet begun.

Doyle Brittain amplified this by saying that anywhere the Base had impacted anything, it would be investigated. Any and all discharges will be evaluated as a part of that water body. Even though a site number has not been given to each of those outfalls, the investigation will go upstream and downstream from Charleston and in Shipyard Creek and in the Cooper River and look at the contribution of the Base to those water bodies, including the stormwater outfalls and the drydock discharges.

These are covered under the Clean Water Act however, we are covering them under the Resource Conservation and Recovery Act to save time and money and to cut red tape.

Ray Anderson asked when the Zone E Work Plan would be returned from the Regulators if it is submitted on 15 February as scheduled. Mr. Hunt said that normally the review period is 30 days. Doyle Brittain said that the Work Plan for Zone E was particularly difficult due to the complex underground utilities and other obstructions. However, Mr. Brittain said EPA would give the quickest turnaround time based on the complexity. If the conditions didn't pose a threat to workers, EPA would support short term leases while the investigation was going on. There may be some properties that are so contaminated that they can't be leased, but this will be the exception to the rule.

Arthur Pinckney asked if local contractors were being used. It was explained that EnSafe is our Comprehensive Long Term Environmental Action Navy Contractor. EnSafe is a Memphis based firm but has an office in Mt. Pleasant.

A. C. Mitchum wanted to know if the Navy was cleaning up to different degrees or if the cleanup level would be the same no matter what the planned reuse would be.

Doyle Brittain said that the RFI being done now will characterize the horizontal and vertical extent of the contamination, the areas of contamination and the concentration of the contamination. Then the Corrective Measures Study will identify several different potential treatment alternatives or cleanup methods for evaluation. The law requires that, before any decision is made on the cleanup, there be a public hearing. The general public will have the opportunity to speak to the cleanup levels and the costs. Once the general public speaks to these issues, the regulators will evaluate and make a determination of what the cleanup level will be.

The process is now in the contaminant assessment phase which will be followed by a contaminant management phase. Right now, the regulators can't answer "how clean is clean"? The answer to that is going to be affected by what the general public says and then a management decision will be made by the regulators (SC DHEC and EPA) which will be protective of human health and the environment.

Mr. Mitchum was assured that the regulators would encourage short term leases (up to 5 years) in the interim and the Navy would not hold the property until all of the Base is cleaned up to minimize the economic impact to the area.

Ross Newland wanted to know, in view of the recent rezoning by the North Charleston City Council to block the SPA, whether that Zone would be cleaned up to the level of the current plan or would it be cleaned up so that it could be suitable for any use.

The EPA and SCDHEC goal is to clean to background. Cleanup is not reuse driven. Jon Johnston (EPA) assured everyone that primary responsibility for cleanup of the Base lies with the Navy and the Federal Government. The Community Environmental Restoration Facilitation Act (CERFA) should give the community a great deal of assurance of the Navy's long term commitment. As the oversight agency in the Federal Government, it is EPA's policy to see that that cleanup occurs. If an industry locates on Navy property and contributes contamination through its own activities, they create their own liability.

6. Update on Corrective Action Management Plan (CAMP).

For the benefit of the RAB members who had received copies of the CAMP in December, Tony Hunt explained several changes that have occurred. Several start dates have been pushed back in Zones I and C due to funding delays. Additional time has been added for the Navy review of the draft Zone E Workplan. Another change was to add necessary time for development of the Corrective Measures Work Plan which is required by the RCRA Part B Permit. Also consideration is given to stagger the document submittals to the regulators to allow expedited review times.

The resulting time increase to the project for these changes is 90 days.

7. Environmental Technology Commercialization Brief.

Dr. Earle Buckley, Director of Coastal Environmental Technology Commercialization at the NOAA Center for Coastal Ecosystem Health, explained that the Center was started about two years ago and is now occupying temporary quarters on the Naval Base. The goal of the Center is to provide information and solutions for wise coastal resources management and protection. The Center has eight components. The Coastal Environmental Technology Commercialization

component deals with the tools for that information and for those solutions. The focus is to take these tools - this research and development and environmental technology that are occurring in the private sector and in the Federal Government - and putting those tools in the hands of American businesses to create new businesses and new jobs. This component of the Center is an alliance between the private sector, the government, and academia to provide a mechanism for what is called value added technology transfer. That is, moving this research and development into commercial activities and new jobs.

The Center's vision is for the emergence of the Trident Region as a world center for coastal environmental technology. The true test of NOAA as a jobs generator will not be how many people are employed at the NOAA center, but how many jobs are generated because NOAA is there. This model has been applied in Austin, TX for their emergence as a center for software development. In five years in Austin, 44 companies formed with 640 new jobs with $80 million in investments in those new companies. The Center is looking for similar or better results here in the Trident Region.

In response to a question by Ms. Ann Ragan as to whether he was affiliated with any other research facilities, he stated that he would have to work very closely with state, local and federal agencies because of the limited budget of NOAA.

8. FOSL/Leasing Status.

Captain Jim Augustin announced that the first Finding of Suitability for Lease (FOSL) was completed in December for the Marina property and several buildings for Marina operations and commercial sales. The lease for that property was signed last week by the Navy after approval by the Redevelopment Authority (RDA). The lease is between the Navy and the Redevelopment Authority and is for five years. The RDA will sub-lease to whomever they want to get to run the Marina. The Navy anticipates that all of the main leases will be between the Navy and the Redevelopment Authority.

Arthur Pinckney wanted to know if money was involved in the transaction. The Captain said that any money made from the operations would be put back in to the facility.

9. Environmental Impact Statement (EIS) Status.

Bobby Dearhart said that the public comment period for the Draft EIS ended on 12 December 1994. A large number of comments were received from several government agencies, individual community members and community interest groups. Responses to comments are being formulated at this time. Each person or group who submitted a comment will get a response.

A couple of items that will affect the Draft EIS have come up since the public review period ended. One item is use of the Naval Base property by the State Ports Authority (SPA). First, meetings with the SPA showed the preferred alternative stated in the Draft EIS would not meet their requirements. The Navy, in conjunction with the SPA, were in the process of developing another alternative, but last week the North Charleston City Council voted to prohibit the SPA from occupying the Navy property.

Until the RDA decides regarding reuse of the property in question, the extent of the modifications to the EIS won't be known.

If revisions are extensive, then the public review comment period may have to be reopened. This is something that will have to be determined and it would impact the schedule.

Lou Mintz brought out that the Draft EIS had been available to everyone including the North Charleston City Council during the public review period. There was a discussion on why the Council didn't speak up during the public review period instead of waiting until all the money had been spent and time had elasped.

Arthur Pinckney wanted to know if this would affect the cleanup. Mr. Dearhart assured him that reuse would not drive cleanup, but that cleanup may drive reuse. Cleanup goals are a regulatory decision based on what contamination is found to exist.

Robert Mikell pointed out that the Draft EIS was based on the four reuse scenarios and that was what was commented on- not the cleanup issues. Mr. Mikell was concerned that if the reuse alternatives were to change, members should get another look at the Draft EIS. Mr. Dearhart pointed out that the Navy wanted to ensure that the EIS would be a workable plan and if significantly revised it could be reviewed again. This decision would be made by Southern Division-Naval Facilities Engineering Command Environmental Planning Department.

Ann Ragan clarified this by stating that the law says that the Draft EIS must go back out for public comment if major modifications are made.

Captain Augustin said that although the Navy is neutral in reuse, it was trying to support the community by completing the EIS as rapidly as possible, under the law the Navy gets one year from the time the Reuse Plan is completed, which would be June 1995 and the changes might slow things down.

10. Redevelopment Authority (RDA) Concerns.

Mr. Ray Anderson of the RDA provided a brief on the RDA concerns. The RDA was formed in August 1994 and has received briefings from all agencies concerned in the redevelopment of the Base.

One concern of the RDA is that there are 116 historic structures on the Base which must be maintained. Some of these structures are in the shipyard and will be used for industrial purposes. The RDA will enter into a Memorandum of Agreement with the State Historic Preservation Office (SHPO) to determine responsibilities for maintaining these structures.

In February the first Request for Proposals will be sent out to agencies dealing with ship building, ship repair and machine shop operations.

The Charleston County Parks and Recreation Commission is currently reviewing the sub-lease for the Marina. The Navy is operating the Marina until the PRC can take it over.

The RDA has received a grant of slightly over $1 million from the Office of Economic Adjustment. This is a 75%/25% match from the Federal government and the RDA will be going to the local and State governments to get the other 25%.

There are already some tenants on the Base, including NOAA, the AmeriCorps Group, and the U.S. State Department.

RDA is working on landlord plans for other agencies. These are entrepreneurial groups that are interested in obtaining facilities on the Base.

The RDA is expanding its paid staff from only 2 professional and 3 clerical. The members of the RDA are in the process of being confirmed by the Senate.

Mr. Anderson said that there had been a lot of publicity about North Charleston's concern regarding the SPA's location on the Base and that the RDA had been aware all along. The RDA is working with the City to address all of their other concerns.

Mr. Anderson expressed appreciation that the Base Environmental Cleanup Team (BCT) had made a presentation to the RDA Environmental Task Force.

Mr. Anderson added that the RDA was going to request that the BCT meet with the North Charleston City Council to answer questions and clear up issues.

11. RAB Public Affairs Subcommittee Report.

Mrs. Pat Franklin pointed out the completed public relations sign which would be placed in the Malls and other places to explain what the RAB is and what it is doing.

Mrs. Franklin asked for and received approval from the RAB for publication of a second Fact Sheet which lists and answers the most commonly asked questions about environmental cleanup of the Base. The subcommittee is working on for a third Fact Sheet which will address a typical site cleanup. It should be ready by the next RAB meeting.

The Subcommittee is working on revising the Community Relations Plan and a draft should be ready in February.

Mrs. Franklin announced that the BCT has been invited to attend the North Charleston Citizens' Advisory Council meeting in February. Ms. Wannetta Mallette will also go to the meeting to explain what the RAB is about.

Mrs. Franklin called attention to the fact that information for the buildings at the Base has been put on a CD-ROM which will be made available to the Redevelopment Authority. This will enable them to "look" at a building via the computer rather than going through the cumbersome Environmental Baseline Survey to find facilities suitable for a particular use.

Captain Augustin brought out that the RAB might consider renaming the Board. He felt that the name didn't really identify the body as being associated with environmental cleanup of the Base. Also, the Air Force Base may be establishing a RAB. He suggested perhaps something like Charleston Naval Base Environmental Cleanup Advisory Board and asked members to give it some thought.

12. Comments by Deputy Under Secretary of Defense for Environmental Security and Chairman of the Defense Environmental Response Task Force.

Ms. Sherri Goodman complimented the RAB on the job it was doing to encourage the public to participate in the environmental work. She said this had been one of her goals. She said she was very impressed with the discussions and felt that the RAB was a great contribution to the community.

Ms. Goodman explained that the Defense Environmental Response Task Force (DERTF) was in essence a "super RAB." The DERTF is made up of representatives from the DOD, the States, the EPA, and from other Federal and State Agencies.

Arthur Pinckney asked if the DERTF would be able to assist in training RAB members in environmental technology so that they would be more knowledgeable when dealing with the public.

Ms. Goodman said that RAB effectiveness training had been given for 1400 people at seven locations and included cleanup team members and co-chairmen. She then deferred to Pat Rivers of her Environmental Cleanup Division in DoD. Ms. Rivers said that they were in the process of developing a video that would talk about how

RABs work. Also, they are looking for different ways to provide assistance to RABs; for instance, setting up resources in a community where people could call and get technical advice from universities or consulting organizations. DoD is working with the EPA on this. They are also considering putting a range of options in the Federal Register to find out what people are interested in. Ms. Rivers said that she would inform the BRAC Environmental Coordinators (BEC) when it would appear in the Federal Register and the BEC could be responsible for informing their individual RABs.

13. Questions from Visitors/Guests.

Mr. Mitchum wanted to know if the EIS had been written with the express intention of having only the SPA at the South End of the Base and if it would have to be redone if the SPA did not go to the Base.

Pat Franklin explained that a maritime terminal appears in the community's preferred alternative. The EIS then addressed all alternatives. Pat Franklin explained that there is a difference between the Environmental Impact Statement and the environmental cleanup. The EIS looks at the reuse of the Base and its impact on the community. If the community changes the preferred alternative, the EIS completion will be delayed.

Mr. Mitchum wanted to know if the reuse of the property would have to be known before another EIS could be done.

Mrs. Franklin said that the reuse would have to be known because the EIS looks at impacts on the commuuity such as transportation issues, natural habitat issues, wetlands, etc.

Mr. Mitchum expressed his disappointment that since the RDA knew of North Charlestou's concerns, they weren't considered in developing the EIS in that there was no back-up plan if the SPA did not occupy the South End of the Base. Mr. Mitchum cited an extreme lack of communication on the part of all involved but wanted to make it clear that North Charleston is unanimously opposed to the SPA occupying the Base.

Lou Mintz called everyone's attention to the fact that the RAB had been meeting for a year and had been publicized extensively. He said it is unfortunate that these issues are just now being brought up by North Charleston. Van Robinson said it was only natural that interest is peaking since the reality of the Base Closure is only just now sinking in.

Doyle Brittain responded to the lack of communication issue. He has stated over and over again that he was available to speak with anybody or any group to explain what was going on. He had been asked recently to speak to North Charleston City

Council and that the details were being worked out. If anybody had a group that wanted him to speak, he would bring the Base Closure Team with him and explain the process.

Jon Johnston of the EPA Region, Atlanta, pointed out that Charleston is in a unique position and was very fortunate one to have a full time EPA representative like Doyle Brittain stationed at the closing Base. Most Bases do not have this advantage. Mr. Johnston emphasized that Doyle Brittain enjoys extraordinary support and the complete confidence of the EPA.

Ms. Barbara Campbell had several involved questions for the RAB and Bobby Dearhart of the Base Closure Office offered to answer them in a one to one session after the meeting.

14. Other Administrative Matters. Mr. Dearhart stated that at the December RAB meeting several questions were asked concerning the Radiological Survey Progress at the Base. Mr. Jim McNeil, Director of the Shipyard Radiological Controls Office, agreed to provide a written status of the survey progress. Mr. Dearhart distributed a written progress report to the RAB members and requested that it be reviewed before the February RAB meeting at which time a briefing will be provided on General Radioactive Materials and questions addressed. A copy of the progress report is attached.

It was announced that the next meeting is scheduled for 14 February 1994 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 pm to 9:00 pm with a Social Hour beginning at 6:00 pm. There being no further business, the meeting was adjourned.

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0252
07 APR 1995

Mr. Doyle Brittain
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: FORWARDING OF THE MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT.

Dear Mr. Brittain:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of March, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Progress Report - March, 1995.

Copy to:
SCDHEC (Mr. Joe Bowers)
COMNAVBASE (N34)
COMNAVBASE (N4BEC, Dearhart)
COMNAVBASE (N4BEC, Franklin)
SOUTHNAVFACENGCOM (Hunt)
SOUTHNAVFACENGCOM (Fielding)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 MARCH 95 TO 31 MARCH 1995

I. INTRODUCTION

The following status report has been prepared to provide a monthly update on the progress of the RFI to members of the Naval Base Charleston (NAVBASE) BRAC Cleanup Team (BCT). Information provided in the monthly progress reports will also be summarized on a quarterly basis to satisfy condition II.E.3.a of the Part B Permit Renewal. This monthly status report has been prepared in a format similar to the quarterly report to help ensure that information pertinent to the RFI is transmitted to the BCT members on a more timely basis.

II. PORTION OF THE RFI COMPLETED

- Soil sampling efforts to delineate the nature and extent of contaminants in Zone H was completed with respect to extent being defined as the area where contaminant concentrations exceed USEPA Region III risk based screening concentrations. A total of 63 additional samples were collected to complete the effort. A comparison to background concentrations will also be made once a method for calculating background has been determined and is accepted by USEPA and SCDHEC.

- The second quarter of groundwater sampling in Zone H commenced the week of 20 March 95. A duration of approximately 30 working days will be needed to complete sampling. During March, samples were collected from 20 of the 91 wells.

- Soil sampling was initiated in Zone C on 13 March 95. To date, 53 of the 236 samples proposed in the *Final Zone C RFI Work Plan* have been collected. Monitoring well installations began on 28 March 95. To date, 8 of the 31 wells proposed have been installed.

- Soil sampling continued in Zone I. To date, 174 of the 234 samples proposed in the *Final Zone I RFI Work Plan* have been collected. Monitoring well installations began on 13 March 95. To date, 24 of the 56 wells proposed have been installed.

- Navy review of the *Draft Focused Field Investigation Technical Memo* was completed. Meetings were held on 21 March and again on 24 March 95 to discuss the comments.

- The *Draft Zone L RFI Work Plan* was submitted to the Navy for internal review on 6 March 95. Meetings were held on 17 March 95 and again on 21 March 95 to discuss comments. USEPA was included in the 17 March meeting to provide preliminary comments prior to official submittal of the documents. As a result of these discussions, an extension for submittal of the plan has been requested.

- Preparation of the the *Draft Zones A, B, and J RFI Work Plans* continued. An extension for the Zone J Work Plan will be requested to allow for completion of the Phase I portion of the ecological assessment as outlined in the Final Comprehensive Baseline Risk Assessment Work Plan.

III. SUMMARIES OF FINDINGS

The quarterly status report submitted in January 1995 included a summary of the findings (based on analytical data) to date at the sites investigated in Zone H. The information presented in that summary regarding the types of contaminants found has not changed; therefore, a new Zone H report has not been included this month.

A limited amount of soil sample data was received from the laboratory for samples collected within Zones C and I. Because the majority of the data was received immediately prior to preparation of this status report, EnSafe/Allen & Hoshall did not have time to perform a preliminary evaluation of the data and generate a summary. A summary of findings will be submitted with next months status report.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations form the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The minutes of the February 1995 meeting are provided as Attachment A. The minutes of the March 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

As mentioned in the status report last month, potential data quality problems surfaced with the dioxin fraction of both the soil and groundwater data generated for Zone H. A meeting was held on 17 March 95 between EnSafe/Allen & Hoshall, Validata (the validation subcontractor), and Pace, Inc. (laboratory subcontractor) to obtain a resolution to the matter. The meeting concluded with an agreement by all parties that the suspected data reporting irregularities were a result of EnSafe/Allen & Hoshall and the validator not receiving a complete set of deliverables from the laboratory. As a consequence, the data packages were not user friendly and led the validator to make some assumptions that were not entirely accurate. To resolve the matter, the laboratory is submitting additional supporting information (specific data requested by the validator) to facilitate the validation process. Upon receipt of the supplemental information, the validator has agreed to retract all statements alleging irregularities with the data packages. Complete resolution is expected by 7 April 95.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The Draft RFI Work Plans for A and B will be submitted to the Navy for internal review on 14 April 95.
- The *Draft-Final Focused Field Investigation Technical Memo* is anticipated to be submitted to the USEPA and SCDHEC for review and comment.
- Revisions to the Final Comprehensive RFI Work Plan are anticipated to be submitted.
- The Corrective Action Management Plan (CAMP) will be updated to reflect schedule changes.
- Preparation of the Draft Zone H RFI Report and the Draft CMS Work Plan will continue.
- Validation of the Zone H data is expected to continue.

- Receipt of comments from USEPA and SCDHEC regarding the Zone E RFI Work Plan are anticipated.
- Additional document research will be performed as part of the Zone L Work Plan preparation.

Field Activities:

- The second quarter of groundwater sampling in Zone H is scheduled to begin in March.
- Several additional permanent monitoring wells are planned to be installed in Zone H. Locations were selected based on data obtained from existing wells and screening data.
- Soil sampling and well installations in Zones I and C will continue. Sediment and surface water sampling in both zones is also expected to be completed.
- Phase I of the ecological risk assessment as outlined in the *Final Comprehensive Baseline Risk Assessment Work Plan* will be initiated as part of the data gathering efforts necessary to prepare the Zone J Work Plan.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Attachment B is a copy of the analytical data for Zones C and I received to date. At the present time, all data included in the attachment should be regarded as preliminary and used for informational purposes only as it has yet to be validated. At the present time, data packages from the additional samples collected in Zone H have not been received.

NAVAL BASE CHARLESTON
RFI STATUS REPORT
MARCH 1995
ATTACHMENT A

RAB MEETING MINUTES FROM FEBRUARY 1995

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 14 February 1995

1. Call to Order. The meeting was called to order by Captain Jim Augustin, Co-Chairperson. He asked that members of the RAB and guests introduce themselves.

2. Introduction of the RAB.

Captain Jim Augustin, Co Chair	Mr. Van Robinson, Co Chair
Mr. Oliver Addison	Mr. Doyle Brittain
Mr. Jim Conner	Mr. Bobby Dearhart
Mrs. Pat Franklin	Mr. Wilburn Gilliard
Mr. Donald Harbert	Ms. Wannetta Mallette
Mr. Ralph Laney	Mr. Ray Anderson
Mr. Robert Mikell	Mr. Lou Mintz
Mr. Arthur Pinckney	Mr. Bob Veronee

3. Introduction of Guests.

Mr. Tony Hunt	SOUTHNAVFAC
CDR Jim Moore	Base Transition Officer
CAPT W. E. Nold	CDR CHASNAVSHIPYD
Mr. Mike Shumake	NAVBASE ENVIR PAO
Mr. Ned Johnson	CNSY Director of Radiological Control
Ms. J. M. Johnson	CNC Redevelopment Authority
Mrs. Pauline Mitchum	Concerned Citizen
Mr. Joe A. Mitchum	Concerned Citizen
K. Ross Newland	Concerned Citizen
Mr. Rick Richter	SC DHEC
Mr. Jim McNeil	LSE
Mr. Daryl DeHeaven	DOE NRRO
Ms. H. Michelle Coward	US Energy Corporation
Mr. Gary A. Benoa	US Energy Corporation
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Ms. Ginny Gray	EnSafe/Allen & Hoshall
Mr. Jay Cornelius	EnSafe/Allen & Hoshall
Mr. James E. Watson, Sr.	EnSafe/Allen & Hoshall
Mr. Sam Weatherford	EnSafe/Allen & Hoshall
Mr. Timothy McCord	EnSafe/Allen & Hoshall
Mr. Peter McPheters	EnSafe/Allen & Hoshall
Mr. Don Tomec	ComPuChem
Ms. Cathy Dover	ComPuChem
Ms. Stephanie Winfield	ComPuChem
Mr. Rick Giglio	ComPuChem

4. Captain Augustin asked for comments on the minutes of the last meeting. The only comment was from Arthur Pinckney who wanted to have more clarification on how Shipyard workers were going to be used in the cleanup. Captain Augustin told him his question would be answered by the briefing to be given by Ralph Laney later in the meeting. The minutes were accepted and will be placed in the repositories.

5. Update on Environmental Cleanup.

Mr. Tony Hunt, SOUTHNAVFAC Remedial Project Manager for the Charleston Naval Complex, passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) status report for January 1995. He said that the progress for January was summed up in the work done on the Comprehensive Work Plan, the funding and the field issues. Five additional sites have been added to the RCRA Facility Assessment (RFA). As of now, 234 sites are in need of investigation. Contracts to begin Work Plans and sampling in Zones A (DRMO Area) and B (Golf Course) will be awarded in February. Workplans for Zones C and I were approved by the environmental agencies contingent on resolution of comments. The contractor is now in the field sampling in Zone I. The Navy review of the Zone E (Shipyard Area) Work Plan is complete. Comments are being incorporated and should be submitted to the environmental agencies by February 17. Final submittal on Volumes I through III of the RFA is expected in February. Validation of data from Zone H is continuing, but no unusual results have been reported. Progress in February is expected to be completion of Volume V of the RFA and beginning Zone I and C field work Attached to these minutes is the January Progress Report which includes a Gantt Chart showing current and projected progress. Mr. Hunt explained the Chart was investigation and sampling and not cleanup.

Jim Conner noted from the Gantt Chart that several Zones are behind schedule. Mr. Hunt explained Zones A, B, C and I were delayed due to funding. Mr. Conner asked if any cleanup could be started before 1998 in the industrial type areas. Mr. Hunt said the Navy would get into remedial action (cleanup) as soon as field work is completed.

Ray Anderson expressed concern that the according to the Chart the cleanup would not be occurring soon enough and asked for any suggestions as to how the CNCRDA could help speed it up. He wants to revise the Chart to more clearly show what is actually scheduled; for instance: (a) Work Plan Phase (b) Sampling Phase (c) Analysis Phase (d) Reanalysis Phase (e) Corrective Action Design Phase. Van Robinson also wanted some kind of flag on the chart to indicate when funding was causing a delay.

Doyle Brittain of the EPA said that things are not as negative as they might appear on the Gantt Chart. The Chart has reduced a lot of information to one sheet of paper. The Corrective Action Management Plan (CAMP) is about 20 pages long

and what is shown on the Chart for each Zone as one line is really one whole page broken down in the CAMP. The CAMP has all of the different milestones and every major decision point up to the cleanup that everyone is interested in. The dates shown are "worst case scenario" because if funding does not come when expected we have allowed for a some slippage without going into violation of a permit and getting into an enforcement posture. These "worst case scenarios" are not what we are shooting for. We are striving to accomplish each one of the dates much quicker. Copies of the CAMP can be made available at the next meeting. Then you can see from a "worst case scenario" standpoint when actual cleanup can begin.

6. Update on Redevelopment Authority.

Ray Anderson announced that the CNCRDA has had two significant pieces of action over the last month. Last week a Request for Proposal (RFP) was approved to send out globally to any companies or individuals interested in shipbuilding, ship repair, or manufacturing. The RFP offered the entire Complex - all 1,500 acres. They were sent a two-inch binder that contains all of the pertinent information, evaluation criteria, maps of the Base, contact points, incentives that the State of South Carolina is going to provide and incentives that the local government may provide to attract them, marketing data on all profiles of the low country and State and why it's a good place to do business. Some 200 RFPs were printed and about 100 have been sent out directly. Also, ads have been placed in trade publications that go to shipbuilding, ship repairing and manufacturing companies. Ads were also placed in the Wall Street Journal, Asian Edition, and so on to try to find some group interested in doing shipbuilding or ship repair. The CNCRDA has asked anyone having interest to respond. Responses are due back the first part of April 1995.

The CNCRDA had a special meeting earlier in the day. What came out of this meeting is that the CNCRDA is asking the Southern Division-Naval Facilities Engineering Command (SOUTHDIV) to make an amendment to the Environmental Impact Statement (EIS) to add an alternative 3.b. This is at the direct request of the City of North Charleston in their opposition to the original reuse plan. Basically, the new alternative would provide for a Maritime Industrial area in lieu of the Maritime Cargo Terminal now shown in alternative 3 and 3a. This will allow much more flexibility in the use of the Southern end of the base. The CNCRDA voted on this today and unanimously agreed to look at other alternatives for the South end of the Base and the extreme North end of the Base. The community is responsible for putting the plan together and that is underway. The CNCRDA hopes to get all input shortly so that a formal request can be forwarded to SOUTHDIV to continue the EIS process.

Ms. Wannetta Mallette asked that the three North Charleston City Council Resolutions supporting the elimination of the Maritime Cargo Terminal from the EIS be attached to these minutes.

Arthur Pinckney said that he had heard that the Navy wanted the SPA to take over the South end of the Base because of less cleanup cost. Captain Augustin assured him that this was not true. The Navy is neutral on Base reuse. The Navy has to clean the Base up to standards of the EPA and SC DHEC. Cleanup is not driven by reuse but the reuse may be constrained by the cleanup. The Navy's intent is to clean the entire site up to minimize the Navy's liability for any contamination it contributed. The Navy would like to clean it up so that 100 percent of the liability would be eliminated, but in the case of the landfill site, this might not be possible. Common practice may cause it to be capped. This is something that is done on Bases and in communities as a way to address the problem. That may constrain that particular site from development; but the SPA, with a large "lay-down" area which would be paved might be compatible. That may be where the misconception came from that the Navy favored the SPA.

Jim Conner questioned why more emphasis wasn't being given to testing in the Industrial Area since that would conceivably be where the jobs could be created. Pat Franklin said that one of the reasons that Zone H was being concentrated on was that some agencies have already moved into Zone 4 and we need to confirm what contaminants are there. Mr. Conner made the point that they would have come in whether testing was done or not since they were government agencies. He said that businesses would not want to come in on an interim lease with the chance that they would later have their operations curtailed because of sampling and cleanup or possibly even having to vacate the property because of contamination. Ross Newland shared the same concern that businesses would not want to come in - even on a 5-year lease - not knowing what their future would be after the 5 years.

Captain Augustin said that properties could be used right now for activities similar to what they are being used for now, but that no modifications or construction could occur under the interim leases due to our not knowing what was in the ground in the way of contamination. Reuse, where construction or modifications are involved, is limited.

Bobby Dearhart said that Zone E was next on the priority list for testing, but that priorities have already been changed twice based on the Reuse Plan and now the Plan is going to be changed. He said that you can't continue to change priorities over and over again.

7. <u>Update on Environmental Impact Statement</u>.

Bobby Dearhart said that the CNCRDA's vote to have the Navy provide another alternative to the Maritime Cargo Terminal reuse would add three or four months onto the schedule of the EIS. The Record of Decision (ROD) was originally scheduled for April - now it will be closer to July. The existing alternatives will not

be changed, but another alternative will be added. There will be another public comment period of 30 days on the final EIS. All public comments will be addressed. Doyle Brittain said there was a lot of misinformation in the press. The reason that the Base is not further along in cleanup is because at one time the Base only had a RCRA permit. This meant that the Base was low priority to DOD, EPA and SC DHEC. All of the big money went to Superfund sites. After the decision was made to close the Charleston Naval Base, it shifted from lowest priority to highest priority. For the last two years, we've been playing "catch up," trying to do what probably should have been done years ago, but didn't have the money to do. Everyone's asked how the process can be speeded up and the answer is simple - MONEY. If we had a blank check, the Base could be cleaned up a whole lot sooner. We are doing the best we can on the money we have and it's not the Navy's fault that it's not going any faster than it is. Up to two years ago, the Base had 26 hazardous waste sites identified in their RCRA permit. As the first step in the RCRA Facility Assessment (RFA), the Navy, EPA and SC DHEC covered every inch of the Base and now has discovered over 400 hazardous waste sites. The permit was already issued, but it only had 26 sites in it and that's a big increase in workload.

We are now in the process of doing a RCRA Facility Investigation (RFI). Zone H is finished because it was the first place that anyone indicated interest in moving onto the base and because the Reuse Plan as proposed said that this Area was the determining factor as to whether the Reuse Plan could be implemented. The sequence of approaching the zones was reviewed by the RAB. It was the RABs agreement to take the Zones in the order that they are being done now. The RAB can change the sequence if that's what the RAB wants to do. The RAB will be talking to everybody and wants to please as many people as possible. However, once we start getting things into motion we have to follow through. The sampling is finished for Zone H. The Work Plan is finished to do investigations in a number of other places. Next, we are going into Zone E, the most heavily industrialized area. It's going to be a challenge for the contractors to go in and install groundwater monitoring wells and collect soil samples without disrupting Shipyard activities. There will be a certain amount of inconvenience as long as the Navy is operating and there's going to be inconvenience if the property is leased. We are not going to allow someone to move into a building that we think they are going to have to move out of while it's being cleaned up. Mr. Brittain told the group that he has been in the environmental business for 28 years and has the professional judgment to recognize problems. He said the cleanup team has a good idea of what contamination is at the Base. The sampling is confirming the boundaries for the hazardous waste sites and the concentrations that are there. We are beginning the Corrective Measures Study in Zone H.

What happens during the Corrective Measures Study is that we are going to pick several different cleanup techniques for each hazardous waste site. The cleanup technique used at one site will not necessarily be the same one used at another site. We are going to find out what is the best technique to clean up the sites. Once that

is done we are going to have a public hearing where the information will be presented as a result of these evaluations. We are basically going to tell the public that with one particular technique it will cost such and such and this is how clean it's going to be, and if you use another technique it will cost this other amount of money. This money is tax money. Everyone will have the opportunity to speak to the techniques and have input to which cleanup level they want and how much money they want to spend. He assured everyone that there would be no "backroom" meetings where decisions would be made independently as to which technique to use or how much money to spend. This will be a public process. After the techniques are decided by EPA and SC DHEC, taking into consideration all of the public comments, the Navy will do the cleanup.

There are two separate processes going on at the same time. People are getting them confused. One is the National Environmental Policy Act (NEPA). The EIS comes out of this. The other process is the Resource Conservation and Recovery Act (RCRA). This is the hazardous waste act.

The Environmental Impact Statement (EIS) looks to the future. The RCRA looks at what has happened in the past and what is happening now. These are two completely different perspectives. The EIS assesses the impact on human health and the environment of proposed actions. This would be the Reuse Plan. Whereas the Resource Conservation and Recovery Act assesses the impact that past and present actions are having on human health and the environment. This is normally called the Correction Action Process.

A lot of people think the Navy has done a lot of bad things. The truth is that the hazardous waste that is on the Naval Base was there before there were environmental laws and the Navy didn't do anything any different from what the private citizens did. People had burn pits in their back yards to burn waste. They drained their crankcase and poured oil out behind the barn or in the street. They sent things to the city dump. You've got dumps all over North Charleston that are no better or worse than those on the Naval Base. The Navy has not done anything different than anybody else. The contamination that is there now was there before there were laws that regulated it. We are simply trying to clean it up now.

The EIS considers land use based on land use restrictions. As we've said many times before, land use does not drive cleanup - cleanup determines land use. The Resource Conservation and Recovery Act cleanup may leave restrictions on the property.

As a last resort, we may put in a position to do something that nobody likes. That's the worst case scenario. That's the RCRA landfill (Zone H) type situation where we may not be able to do anything else but put a RCRA cap on it, put a pump and treat system on it and walk away and no one can touch it. This is not the Navy's fault.

The Navy doesn't get a vote in this regard. It is an EPA and SC DHEC decision. EPA is not in the habit of having people relocate landfills.

The EIS process provided the opportunity for the public to provide comments. There are two key documents that need to be understood. One is the Reuse Plan and the other is the EIS. The Reuse Plan developed by the BEST Committee and adopted by the CNCRDA is a community document - not a Navy document. If you don't like the Reuse Plan, don't criticize the Navy - talk to the Redevelopment Authority. The EIS is a Navy document. The Reuse Plan proposes future reuses of the property, hopefully taking into consideration the National Environmental Policy Act (NEPA) and the Resource Conservation and Recovery Act (RCRA). The Environmental Impact Statement considers the Reuse Plan but is constrained by RCRA among other factors. All of the Natural Resource Trustees will have some input into the EIS.

The Navy is really in an awkward position having to come up with the EIS. They are between the environmental agencies (EPA and SC DHEC) and the CNCRDA. One is saying they have to clean it up to a certain level and they may put certain constraints on reuse and the other is saying they want it cleaned up to a level for reuse. The Navy is trying to make the environmental agencies and the community happy.

Mr. Brittain said that the RAB was a very important group and advised everyone to bring their friends and neighbors to the meetings. The cleanup team has offered to go to citizens' groups, churches, and civic clubs to talk about the environmental future of the Base.

8. Update on Revised BRAC Cleanup Plan.

Mrs. Pat Franklin said that the Navy is required to revise (update) the BRAC Cleanup Plan once a year. The draft Revised BRAC Cleanup Plan should be ready by next Tuesday (February 21). RAB members will be given a copy and are asked to have their comments back within a week. It has to be to NAVFAC Headquarters by March 3rd.

9. Update on Public Relations Subcommittee.

Pat Franklin passed out copies of Fact Sheet No. 2. Fact Sheet No. 3 will be in the mail next week. She asked that comments be seen back quickly so that it can be sent out to the public.

The subcommittee will look at the RFI at the next meeting in March.

The subcommittee met with the North Charleston Citizens' Advisory Council in North Charleston last week. There were between 25 and 50 people there. The subcommittee is scheduled to meet with the Iron Dog Merchants' Association.

10. Report on Defense Environmental Task Force (DERTF) Meeting.

Captain Jim Augustin reported that the DERTF was very impressed with the Charleston RAB meeting they attended last month as well as the BRAC Cleanup Team that briefed them extensively. Mr. Ray Anderson, Mr. Van Robinson and Mr. Arthur Pinckney were presenters at that meeting and were well received. Some of the people here at this RAB meeting were present at the DERTF meeting and were given an opportunity to ask questions. They inquired about funding and health of workers on the Base, among other items

11. Briefing on General Radioactive Material Surveys.

Mr. Ned Johnson , Director of Radiological Controls at the Shipyard, gave an update on the general radioactive material surveys. He started by saying that radioactivity is everywhere around us and within us. In order to distinguish naturally occurring radioactivity from that which is of environmental interest takes the use of very sensitive instruments. Surveys include the entire Base - not just the Shipyard. The surveys are on schedule (just past the half way point) and fully funded. EPA and SC DHEC monitor the surveys and do independent sampling. There will be no restrictions for land reuse after April 1996 because of radioactivity.

12. Charleston Naval Shipyard Worker Accomplishment on Cleanup.

Mr. Ralph Laney announced that due to time he would postpone his presentation on this subject until the March 14 meeting. However, he did say that Shipyard workers were being trained at this time in environmental cleanup to accomplish the Shipyard's compliance work that has to be complete by April 1, 1996. They are also being trained to possibly participate in the environmental remediation related to post closure. The Shipyard has a partnership with SOUTHDIV to accomplish this. Mr. Laney said that the key to the success of this concept will be funding and timely identification of work to get the workers on line before the Base closes.

13. Demonstration of Sampling Methods.

Todd Haverkost of EnSafe/Allen & Hoshall explained that in the Work Plans that they have been writing are different types of sampling including soils, groundwater, air, sediment and surface water. The most commonly collected samples are soil and groundwater.

Using a hand auger, a demonstration was given to show how to collect soil that is above the water table. Sampling is usually done from zero to one foot and three to five feet. This is specific to Charleston.

Mr. Haverkost displayed the protective garments worn by workers when taking samples. He explained that the equipment is decontaminated prior to being taken to a site, and how the integrity of the samples is maintained by protecting the stainless steel or Teflon equipment with foil prior to use and then putting the samples into clean labeled jars that are sealed for transport to the laboratory. Each person who handles a jar must sign a manifest. Quality control is of utmost importance in environmental sampling.

Mr. Haverkost also demonstrated groundwater sampling using a model created by EnSafe. A peristaltic pump create a very low flow of water from a well, about a liter/minute, which ensures that the water extracted is in its natural state. If water is extracted too quickly the soil above will cascade down into the water and some of the volatile compounds, such as the constituents in gasoline, could be stripped down and the test results won't be representative. Also, when sampling for metals, it is very important to have low turbidity.

Mr. Haverkost said that most of the wells at the Naval Base were shallow wells about 15 feet deep. The deeper wells are from 40 to 60 feet deep. It takes about one hour to purge a 15-foot well. It may take from half to a whole day to purge a deep well.

14. Administrative Announcements.

Captain Augustin said there were plans to establish a RAB Training Subcommittee and asked that anyone wanting to serve contact Pat Franklin. There has been much interest in training expressed by the various members so that they would be better able to answer questions from their constituents on the environmental process, and contribute to the RAB. Captain Augustin called attention to the fact that the Community Co-Chairman position is a one year appointment. There will be a community caucus at the March meeting to elect the Co-Chairman for the next year.

Arthur Pinckney said that he was on the National RAB Committee and said that the consensus of the group that the Navy was working with the communities better than the Army or the Air Force.

Doyle Brittain thanked Mr. Pinckney for sharing this with the RAB and said that the Navy in Charleston , particularly, should be commended because they were doing much more than required.

It was announced that the next meeting is scheduled for 14 March 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 p.m. to 9:00 p.m. with an informal discussion hour beginning at 6:00 p.m.

15. Adjournment. Due to the lateness of the hour, the meeting was adjourned.

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY UNVALIDATED DATA

VOLUME 1 OF 3

March 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY UNVALIDATED DATA

VOLUME 2 OF 3

March 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY UNVALIDATED DATA

VOLUME 3 OF 3

March 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY
UNVALIDATED
DATA

VOLUME 1 OF 3

March 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY
UNVALIDATED
DATA

VOLUME 2 OF 3

March 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT
ATTACHMENT B

ZONES C AND I
PRELIMINARY
UNVALIDATED
DATA

VOLUME 3 OF 3

March 1995

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0325
0 J [illegible] 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Heath and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: FORWARDING OF THE QUARTERLY RFI PROGRESS REPORT.

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the RCRA Facility Investigation (RFI) Progress Report for the Naval Base Charleston Complex in order to comply with its Hazardous and Solid Waste Amendments Part B Permit (EPA SCO 170 022 560), condition II.C.5.

Enclosure (1) is the RFI Progress Report for activity up through April 30, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Progress Report - Summary through 30 Apr 1995.

Copy to:
SCDHEC (Mr. David Walton)
SCDHEC (Mr. Joe Bowers)
COMNAVBASE (N34)
COMNAVBASE (N4BEC, Dearhart)
COMNAVBASE (N4BEC, Franklin)
SOUTHNAVFACENGCOM (Hunt)
SOUTHNAVFACENGCOM (Fielding)
USEPA (Mr. Doyle Brittain)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 April 95 TO 30 APRIL 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit 3 Renewal dated 5 December 94 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of April 95.

II. PORTION OF THE RFI COMPLETED

- The proposed revisions to the *Corrective Action Management Plan* were submitted for approval to SCDHEC and USEPA on 21 April 95.

- The *Draft Zone A and B RFI Work Plan* (the two plans have been consolidated onto one document) was submitted to the Navy for review on 19 April 95. The "on board" review of the document was held on 26 April 95.

- The initial phase of soil sampling in Zone C was completed. The sampling effort resulted in the collection of 220 of the 236 samples proposed in the *Final Zone C RFI Work Plan* being collected. In general, the remaining proposed samples were not collected due to the shallow groundwater table. Installation (including protective casings and locks) of all but one of the monitoring wells proposed in the work plan was completed. This brings the total number of monitoring wells in Zone C to 30. Currently, development of the wells in underway.

- Six additional shallow monitoring wells were installed and sampled in Zone H to complete the groundwater assessment portion of the RFI. A total of 97 monitoring wells currently exist in Zone H.

- Validation of the Zone H analytical data is nearly completed.

- The second quarter of groundwater sampling in Zone H concluded during the month of April. Analytical parameters for each individual site were better defined within Zone H based on the results of the first sampling event.

- The initial phase of soil sampling in Zone I was also completed. A total of 188 of the 234 samples proposed in the *Final Zone I RFI Work Plan* were collected. Again, the shallow water table was the reason numerous samples from the deeper sample interval were not collected. Installation (including protective casings and locks) of all but one of the monitoring wells proposed in the work plan was completed. This brings the total number of monitoring wells in Zone I to 55. Approximately half of the wells have been developed and groundwater sampling was initiated at the grid based well locations.

- Preparation of the *Draft Zones J and L RFI Work Plans* continued. A scoping meeting concerning the Zone J work plan was held at the South Carolina Department of Natural Resources on 28 April 95.

III. SUMMARIES OF FINDINGS

The quarterly status report submitted in January 1995 included a summary of the findings (based on analytical data) to date at the sites investigated in Zone H. The information presented in that summary regarding the types of contaminants found has not changed; therefore, a new Zone H report has not been included this month.

Attachment A is a summary of the findings to date in Zones C and I. The summary is based on a preliminary review of unvalidated analytical data submitted with last months status report and some additional data being submitted this month.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

USEPA has raised the concern that chemical analyses are being performed by laboratories other than those whose quality assurance plans (QAPs) are included in the Comprehensive RFI Work Plan. A revision to the Comprehensive RFI Work Plan is being prepared to address the issue.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and

are open to the public. The agenda from the April 1995 meeting and the minutes of the March 1995 meeting are provided as Attachment B. The minutes of the April 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

Previous months status reports documented issues that were raised concerning the validity of the dioxin data generated during the analysis of samples from Zone H. Several actions taken to resolve the matter have occurred since the submittal of last months status report. The subcontract laboratory provided supplemental deliverables to the data validation subcontractor so that a thorough validation of the data could be completed. Upon receipt of the supplemental deliverables, the validation subcontractor retracted all statements made regarding data reporting irregularities. The final validation reports concluded that the dioxin data is useable but may be biased high in the case of low concentration results in soil and water. As a consequence it was recommended that all low-level, unflagged, positive results be considered as "Estimated Maximum Possible Concentrations". The validator also recommended that all unflagged, high-level sample results be flagged as estimated (J) due to the possibility of carry over contaminations. It should be noted that this is a conservative recommendation due to the absence of nonane blank (a type of blank that is recommended as part of the USEPA 8290 dioxin analytical method) quantification results and not because there was evidence that carry-over actually occurred.

As a result of this episode, USEPA submitted a memo to the Navy requesting that some additional actions be taken to ensure the matter has been fully resolved. During a meeting held 26 April 95, the Navy and EnSafe/Allen and Hoshall indicated that both were willing to comply with the request. Two key issues agreed upon are submittal of QAPs of each of the subcontract laboratories and the willingness of all Navy subcontractors to be the subject of an audit by USEPA personnel.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The *Draft-Final Zone A and B RFI Work Plan* will be submitted to SCDEHC and USEPA for review and comment.
- The *Draft-Final Focused Field Investigation Technical Memo* is anticipated to be submitted to the USEPA and SCDHEC for review and comment.
- Revisions to the Final Comprehensive RFI Work Plan are anticipated to be submitted.
- A test set of Zone H data will be submitted to USEPA using the Interchange File Format (IFF) to further evaluate the use of electronic media to transmit data.
- Preparation of the Draft Zone H RFI Report and the Draft CMS Work Plan will continue.
- Validation of the Zone H data is expected to be completed.
- Receipt of comments from USEPA and SCDHEC regarding the Zone E RFI Work Plan are anticipated.
- Preparation of the *Draft Zone J and L RFI Work Plans* will continue.
- Review of the Zone C and I analytical data will begin to identify any data gaps which may exist.

Field Activities:

- Development and sampling of the newly installed monitoring wells in Zones C and I will continue.
- Surveying of sample locations in Zones C and I will continue.
- Samples to be tested for selected engineering parameters will be collected in Zone H as part of the *Draft Zone H CMS Work Plan* preparation.
- Coordination for subcontract services necessary for the Zone E RFI field work will begin.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Attachment C is a copy of the analytical data for Zones C and I received to date. At the present time, all data included in the attachment should be regarded as preliminary and used for informational purposes only as it has yet to be validated. At the present time, data packages from the additional samples collected in Zone H have not been received.

NAVAL BASE CHARLESTON
RFI STATUS REPORT

ATTACHMENT A

Zone C Summary Site Description and Preliminary Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 508 INCINERATOR	Former Incinerator 19 operated from 1922 until 1929. Its exact dimensions and operating practices are unknown. Currently the site is a grassy area west of Avenue H and north of AOC 511.[a]	Metals Petroleum Hydrocarbons Products of Incomplete Combustion Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Metals, and Total Petroleum Hydrocarbons (TPH)	None detected at this time.
AOC 510 GEOTECHNICAL LABORATORY	Building NH-21 is a geotechnical laboratory and equipment storage area. This site has historically been used as a fireproof warehouse (1919-1947), a washroom (1947-1955), a paint shop (1955-1962), storage area (1962-1977), and a geotechnical laboratory (1977-present). A covered pit is on the west side of the building.[a]	Paints Acetone Solvents Laboratory Chemicals Methylene Chloride Methyl Ethyl Ketone (VOCs, SVOCs), and Metals)	SVOCs
AOC 511 OIL STORAGE	Former Building 16 was used for oil storage from 1922 until approximately 1955. The design features and operating practices of this facility are unknown. Currently the site is a grassy area west of Avenue H and north of Building 762.[a]	Petroleum Hydrocarbons (VOCs, SVOCs, and TPH)	None detected at this time.
AOC 512 INCINERATOR	Former Incinerator 67 operated from 1943 until 1958. Currently, the site is a grassy area southwest of Building 1079.[a]	Metals Petroleum Hydrocarbons Products of Incomplete Combustion (VOCs, SVOCs, Metals, and TPH)	SVOCs
AOC 513 MORGUE	A morgue operated at this site in the early 1920s. The waste disposal practices of this facility are unknown. Currently the site is a grassy area southwest of Building NH-55.[a]	Alcohol Creosote Formaldehyde (VOCs and SVOCs)	No data received at this time.

Zone C Summary Site Description and Preliminary Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 515 INCINERATOR	An incinerator operated at this site in the 1920s and a paint shop replaced it in the 1930s. Currently, it is a gravel parking area east of AOC 519.[a]	Oils Paints Solvents Products of Incomplete Combustion Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
AOC 516 WASH AREA/BATTERY CHARGING	Building 233 was used for spay washing vehicles and equipment from 1972 until the 1980s. Currently it is used as a lead-acid battery charging facility.[a]	Lead Metals Solvents Battery Acids Petroleum Hydrocarbon (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
AOC 517 FIRING RANGE	From 1959 until 1974, Building M192 was used as an indoor firing range. Currently it serves as a classroom and storage area.[a]	Lead Metals (Metals)	No data received at this time.
AOC 518 COAL BINS	Coal was stored in bins at this site from 1926 until 1937. The design or construction of the coal bins is unknown. Currently this site is a gravel and asphalt parking lot and a portion of the area underlying Building M-1257.[a]	Coal Coal Derivations (Metals)	No data received at this time.
AOC 519 BOILER HOUSE	A boiler house for the Navy Brig operated at this site from 1922 until 1929. Currently this site is a gravel parking area east of Building NH-55.[a]	Coal Coal Derivations Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
AOC 520 GARBAGE HOUSE	Former Building M-1051 was a garbage house for a Marine barracks in the 1920s through the 1940s. Currently the site is an asphalt parking lot north of Building M-17.[a]	Domestic Wastes (VOCs, SVOCs, Metals, TPH, pesticides and PCBs)	No data received at this time.

Zone C Summary
Site Description and Preliminary Soil Results

Site	Description	Materials Generated or Stored	Preliminary Analytical Results
AOC 523 GAS STATION	Former Gas Station (M-1234) operated from 1958 until 1962. Currently the site is covered by the southeastern portion of Building 198. It is unknown if Underground Storage Tanks (USTs) are present.[a]	Lead Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
SWMU 44 COAL PILE	The coal storage yard began operations in the 1940s and is used for unloading coal railcars and for the intermediate storage of coal before use at the steam-generation plant (Building 32). The coal pile is currently 80' x 400'.[a]	Coal Coal Derivatives (Metals)	Metals SVOCs
SWMU 47 BURNING DUMP	This site was a burning dump during the 1920s. Currently, it is an asphalt and grassy area on which Buildings NSC-64, NSC-66, and NSC-67 are located. Petroleum product spills have been reported at these buildings in recent years.[b]	Petroleum Hydrocarbons Products of Incomplete Combustion Medical Waste (VOCs, SVOCs, Metals, and TPH)	No data received at this time.

Notes:

[a] Described in the *Draft Final RCRA Facility Assessment*, Volume II, November 1994.
[b] Described in the *RCRA Facility Assessment*, August 1987.

Zone I Summary Site Description and Preliminary Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 671 METERING HOUSE, FORMER BUILDING 3905G, AND SURROUNDING AVIATION GASOLINE COMPOUND	Aviation Gasoline compound operating from the 1940s until the 1960s. Two 25,000-gallon concrete tanks and the possible foundation of the truck load stand still exist. There is no evidence of the metering house, or any other ancillary structures at this time.[a]	Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons and Heavy Metals	Pesticides Semivolatile Organic Compounds (SVOCs)
AOC 672 BUILDING 126 SUBSTATION	Substation containing transformer and switch gear to support electrical grid. Facility dates from WWII era with a modification in 1950. Transformer reported to have had a moderate leak in 1981. Tests completed in 1987 showed transformer was PCB contaminated (73 ppm). Present equipment all non PCB.[a]	Dielectric fluids	Pesticides
AOC 673 BUILDING 169 PAINT AND OIL STORAGE	Building used to store paint, oils, solvents, and other support materials. Former location of 2 25,000-gallon underground storage tanks.[a]	Paints, oils, and solvents. VOCs and Petroleum Hydrocarbons	Pesticides Metals
AOC 675 FUEL OIL STORAGE TANK NS-4	A 25,000-gallon UST supporting the boiler in Building NS-2. Held residual oil (No. 5) from time of installation in 1952 until conversion to diesel fuel in 1991. Additional USTs are near NS-3, adjacent to the west.[a]	Residual fuel, diesel fuel, aviation gasoline, and fuels from past operation.	Pesticides
AOC 676 FORMER INCINERATOR	An incinerator operated before the construction of NS-2 area. There is no information regarding the type of structure that existed, the type of incinerator, or the materials incinerated at this facility.[a]	Ash — potentially high in metals, petroleum products.	Pesticides SVOCs

Zone I Summary Site Description and Preliminary Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 677 GROUNDS OF BUILDING NS-2	The grounds around Building NS-2 have been the site of a number of petroleum spills associated with the operation of the boilers in NS-2. Spill reports indicate a number of releases since 1977. This also is near the location of seaplane refueling operations conducted during the 1940s.[b]	Residual fuel, diesel fuel, aviation gasoline, and lead.	Pesticides SVOCs
AOC 678 FIREFIGHTER SCHOOL, FORMER BUILDING V-2	Former Firefighter School and potential site of controlled burning of ignitable materials.[a]	Petroleum (volatiles, light hydrocarbons)	Pesticides SVOCs
AOC 679 FORMER WASH RACK	Former location of wash rack.[a]	Petroleum (oil & grease, heavy hydrocarbons)	Pesticides SVOCs
AOC 680 GRINDING ROOM BRAKE REPAIR AREA	Former Grinding Room/Brake Repair Area in NS-26.[a]	Asbestos dust	No data received at this time.
AOC 681 BLAST BOOTH	Blast Booth in Building 681 used to strip miscellaneous components.[a]	Lead-based paint Aluminum oxide	SVOCs
AOC 685 FORMER SMOKE DRUM SITE	Former Smoke Drum; use unknown.[a]	Products of incomplete combustion	Pesticides SVOCs
AOC 687 AMMUNITION STORAGE BUNKER	Ammunition Storage Bunker X-55 used to store explosives and paint.[a]	Explosives Paint waste	None detected at this time.
AOC 688 AMMUNITION STORAGE BUNKER	Ammunition Storage Bunker X-56 used to store explosives and paint.[a]	Explosives Paint waste	No data received at this time.
AOC 689 SOUTHERN TIP OF THE BASE (Marina Parking Area)	The marina parking area was reportedly used for unauthorized disposal of unknown materials during filling activities.[a]	Unknown materials	No data received at this time.
AOC 690 DREDGED MATERIALS AREA ROADS	Dredged Materials Area Roads are reported for unauthorized disposal of chemicals and other hazardous wastes by ship personnel.[a]	Petroleum products; Unknown materials	Pesticides SVOCs

Zone I Summary Site Description and Preliminary Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
SWMU 12 OLD FIREFIGHTER TRAINING AREA	Old firefighter training area consists of a shallow pit into which flammable liquids were pumped, ignited, and then extinguished.[a]	Petroleum Hydrocarbons Coal Ash SVOCs and Metals	SVOCs
SWMU 16 PAINT STORAGE BUNKER	Roof of Storage Bunker X-55 used for unauthorized open storage of small quantities of paint and other materials with a spill history.[b]	Paint wastes and Paint thinner	No data received at this time.

Notes:

[a] Described in the *RCRA Facility Assessment*, June 13, 1994 (revised November 1994).
[b] Described in the *RCRA Facility Assessment*, August 1987.

NAVAL BASE CHARLESTON
RFI STATUS REPORT

ATTACHMENT B

Tuesday, April 11, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6:00 PM NORTHWOODS ATRIUM (Best Western) off Interstate 26 at Ashley Phosphate Road

RAB members, BRAC Cleanup Team, on hand to informally discuss cleanup topics.

7:00 PM Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Observations, concerns, comments by RAB members

D.	Environmental Cleanup Progress Report	Mr. Tony Hunt
E.	Update on Environmental Impact Statement	Mr. Bobby Dearheart
F.	Update on Redevelopment Authority	Mr. Ray Anderson
G.	Proposed Chicora Tank Approach	Mr. Bob Veronee
H.	Public Relations Subcommittee Report RAB Brainstorming Meeting	Mrs. Pat Franklin
I.	Training Subcommittee Report	Mr. Bobby Dearheart

J. Remaining Questions and Comments from Visitors

K. Other Business, Announcements

Mark your calendar: Next meeting is Tuesday, **May 9th**, same time and location.

Note: At a future meeting Ensafe will bring back the excellent sampling demonstration for the informal period (6-7 pm) so everyone can see it and ask questions.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 14 March 1995

1. Call to Order. The meeting was called to order by Mr. Van Robinson, Co-Chairperson. He asked that members of the RAB introduce themselves.

2. Introduction of the RAB.

Mr. Van Robinson, Co Chair	Captain Jim Augustin
Mr. Oliver Addison	Mr. Doyle Brittain
Mr. Bobby Dearhart	Mr. Steve Best
Mrs. Susan Floyd	Ms. Jacquelyn White
Mrs. Pat Franklin	CDR Ray Downs
Mr. Donald Harbert	Ms. Wannetta Mallette
Mr. Ralph Laney	Mr. Ray Anderson
Mr. Lou Mintz	Ms. Ann Ragan
Mr. Arthur Pinckney	

*CDR Ray Downs, Naval Station, Charleston, representative on the RAB, announced that he was transferring to Guam and that LCDR Nick Cimorelli would be his replacement . LCDR Cimorelli was also present.

3. The following visitors were present.

Mr. Tony Hunt	SOUTHNAVFAC
Mrs. Sue Lawley	SOUTHNAVFAC
Mrs. Kim Reavis	SOUTHNAVFAC
Mr. Art Conrad	SOUTHNAVFAC
Mr. Jerry Hudson	SOUTHNAVFAC
Mrs. Thuane Fielding	SOUTHNAVFAC
CAPT W. E. Nold	CDR CHASNAVSHIPYD
Mr. Jim Beltz	Chasn Base Closure Office
Mr. Mike Shumake	COMNAVBASE Public Affairs
Mrs. J. M. Johnson	CNC Redevelopment Authority
Mr. David Walton	SC DHEC
Mr. Joe Bowers	SC DHEC
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Mr. Peter McPheters	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Mr. Jeff Bennett	EnSafe/Allen & Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Ms. Ginny Gray	EnSafe/Allen & Hoshall
Mr. Sam Weatherford	EnSafe/Allen & Hoshall
Mr. James E.Watson, Sr.	EnSafe/Allen & Hoshall
Mr. Bobby Knight	Grassroots Conversion Coalition
Mr. Hubert Dixon III	Grassroots Conversion Coalition

Mr. Larry C. Hargrove	Life Cycle Environmental
Mr. Phil Albenesius	US Energy Corporation
Mr. Rob Gamble	US Energy Corporation
Mr. Ron Ruys	Concerned Citizen
Mrs. June Brittain	Concerned Citizen
Mr. K. Ross Newland	Concerned Citizen

4. Comments on Minutes.

Mr. Robinson asked for comments on the minutes of the last meeting. There were none. The minutes were accepted and will be placed in the repositories.

5. Discussion of Revised BRAC Cleanup Plan.

Mrs. Pat Franklin asked that members of the RAB give her comments on the revised BRAC Cleanup Plan. She said that the revised Plan was just reorganized somewhat, but nothing substantive had changed on the strategy. The revised plan does reflect accomplishments of the past year.

6. Public Relations Subcommittee Report.

Mrs. Pat Franklin asked for comments on Fact Sheet No. 3, Typical Site Cleanup. The Subcommittee would like to go to press with it. There were no comments. She said that the Subcommittee was working on a Fact Sheet that would cover the differences in the Resource Conservation and Recovery Act and the National Environmental Policy Act process. This would also explain how the Reuse Plan and the Environmental Impact Statement fit together. They are also working on a Fact Sheet on the investigative findings on Zone H.

Captain Augustin asked that the Subcommittee take on a project to come up with a new name for the Restoration Advisory Board. He recommended something that would clearly indicate that the group is involved with the environmental cleanup of the Charleston Naval Complex. He suggested a couple of names including Charleston Naval Base Cleanup Advisory Board or Environmental Cleanup Advisory Board. He pointed out that the Fact Sheets and the newspaper meeting announcements all said Restoration Advisory Board and that the majority of the public would associate that with Historic Building Preservation.

7. Update on Environmental Cleanup.

Mr. Tony Hunt, Remedial Project Manager for the Charleston Naval Complex, passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) Progress Report for February 1995 and Proposed Revisions to the Corrective Action Management Plan (CAMP). One change from the February RFI Progress Report is that Zones A, B, C, H and I are fully funded to complete the

field investigation. Zone E field investigation is funded through the end of CY 1995. Zones J and L are funded for Work Plans only. This represents a total of approximately $17 million spent.

No additional sites to investigate were identified in February.

Revisions to the Final Comprehensive Work Plan have been reviewed by the Navy. Volume V of the RFA is being reviewed by the Navy.

EPA and SC DHEC approval for Work Plans for Zones C and I have been received. Zones C and I field work has begun. Draft final Zone E Work Plan has been submitted to EPA and SCDHEC for review. Zone E field work will begin in April.

Final Navy comments on Volumes I, II and III of the RFA are being incorporated by EnSafe and should be submitted in March to the EPA and SCDHEC. Volume IV of the RFA is at EPA and SCDHEC for review.

Independent validation of data from laboratory results continues. It determines if the proper quality assurance (QA) processes were followed. Persistent chemicals such as pesticides and various compounds of dioxins are being found as expected but they are below action levels. This has been confirmed by EPA and SC DHEC. The RFI report summarizing the findings will be complete in June 1995.

Changes to the CAMP have been completed and are attached to the February Progress Report. The changes were basically dates that have shifted because of lack of funding or start dates, and to recognize the need for a Corrective Measures Study Work Plan.

Projected activity for March: Zone I field work will continue. Zone C field work will begin. We will submit Volume V of the RFA to the EPA and SCDHEC. We plan to complete the Comprehensive Work Plan changes. We hope to receive approval on Zone E Work Plan.

Mr. Lou Mintz and Captain Augustin asked that all Zones be included in the monthly RFI Progress Report.

Mr. Ray Anderson asked for a percent complete. Mr. Hunt said that only Zones A and B are behind schedule. Everything else is on schedule according to the CAMP and we hope to get ahead of the schedule and accelerate A and B as summer comes. He said that the rotosonic drilling method would help us get ahead of schedule.

Mr. Ray Anderson asked how Zone H was progressing. Mr. Hunt said that field work was essentially complete. The Project Team will get together the week of 20 March and lay out exactly what soil samples have been taken, what was found and

come to an agreement on whether all of the sites have been delineated. Zone II is almost at the RFI Report stage.

Mr. Lou Mintz asked where all of the waste is that has been acquired by sampling. Mr. Hunt explained that the waste at this point is Investigative Derived Waste (IDW) being screened to determine if it is hazardous. So far, there have been about 118 drums. It is very expensive to ship hazardous waste, so if it can be determined during screening that it is not hazardous it will save money because it can be deposited back where it was removed from on site. Also, with the rotosonic method much less waste is being generated. The rotosonic method cuts down on IDW by about 2/3.

Mr. Arthur Pinckney asked if the Navy had looked at treating the waste in place in lieu of disposing of it at off-site locations. Mr. Hunt said that the on-site treatment unit might be looked at when we get into the remedial action process. It hasn't been looked at yet.

Mr. Van Robinson asked whether the rate of funding was better or worse than it had been. Mr. Hunt said that it was much better. Zones A, B, C, H and I are fully funded. Zone E is funded through CY 95 and Zones J and L have the Work Plans funded. Mrs. Pat Franklin clarified that Navy has only asked that Work Plans for Zones J and L be funded at this time because they are so different. They are the water bodies and sanitary sewer systems and the Work Plans need to be looked at before the work can be costed out.

In relation to funding, Ms. Ann Ragan of SC DHEC said that in the FY 96 total Defense Environmental Restoration Account budget which is being worked on in Washington right now, was proposed for reduction from $1,780 million in FY 95 to $1,622 million. Further, the BRAC Environmental account which affects closing bases was proposed to drop from $559 million in FY 95 to $451 million for FY 96. The information she reported came from a publication called Military and the Environment. She urged everyone to write to the Legislators now to ask that the BRAC budget not be cut.

Mr. Doyle Brittain, Charleston Naval Complex on-site EPA representative also urged writing to the Legislators. He indicated that EPA Headquarters had just last week asked EPA Regions to justify their involvement in the BRAC process as far as having a dedicated EPA representative for closing Bases. All members of the RAB gave a vote of confidence for Mr. Brittain to remain as a dedicated EPA representative for Charleston because he adds immensely to the process and all agreed to support letter writing to keep him.

Mr. Arthur Pinckney reiterated what both Ms. Ann Ragan and Mr. Doyle Brittain stated and said he had already prepared a "form letter" to pass out to the RAB and

the community members. Ms. Ragan provided comments and suggestions on the letter.

8. Update on Redevelopment Authority Actions.

Mr. Ray Anderson, CNC Redevelopment Authority, said that $6 million was put into the DOD budget for FY 95 which will allow the Base and the RDA to work together to do some demolition and to upgrade some utilities. The RDA has been discussing utilities. The RDA cannot by law own and operate utilities. Mr. Anderson announced that last week 40 companies looked at the facilities on the Base. This was a formal pre-RFP process which seeks firms to redevelop the Base. Twenty-five were from South Carolina. Proposals are due April 10, but if companies indicate they can't respond that quickly, the date can be extended.

Mrs. Susan Floyd asked for an estimate of the number of jobs these various companies would bring in, but Mr. Anderson could not say until the proposals are received and evaluated and the requests for confidentiality are withdrawn.

Ms. Wannetta Mallette asked if the firms were being offered the entire Base. Mr. Anderson said they were being offered everything that had not already been committed.

Mr. Bobby Dearhart asked if any of the firms had inquired about the environmental conditions at the Base. Mr. Anderson said that environmental conditions were addressed in the RFP and the companies were aware but that no specific questions had been received. It is not clear that environmental issues would limit interest.

Mr. Anderson also stated that the RDA was negotiating with the National Guard and the McKinney Task Force for interim leasing some property.

9. Update on CNSY Worker Accomplishment of Cleanup.

Mr. Ralph Laney gave an update on the plan to have part of the environmental cleanup of the Base done by Shipyard employees. The concept was pioneered by the Mare Island Naval Shipyard. In June 1994 a Memorandum of Agreement (MOA) to accomplish BRAC environmental cleanup was signed by Commander, Naval Sea Systems Command (NAVSEA), and Commander, Naval Facilities Engineering Command (NAVFAC). Under the MOA, NAVFAC agreed to screen environmental cleanup tasks and "contract" with the appropriate shipyard to have qualified personnel perform the tasks if they have submitted a cost proposal less than the government estimate and have an acceptable schedule. In turn, NAVSEA agreed to provide training and fund environmental training for shipyard personnel to qualify them to accomplish environmental remediation.

Shipyard employees are being trained. Already over 1,000 personnel have been trained in one of several environmental fields and many are doing cleanup and compliance work now. The work they are doing is funded by the respective base activity major claimants.

To develop this plan a Partnering Team has been established between SOUTHNAVFAC and CNSY. The Team meets weekly and has developed a business process to identify remediation projects for the environmental detachment.

The environmental detachment goal is to help workers who have one to three years to reach a retirement milestone and begin selection in April 1996. The goal is to have an environmental detachment of about 300 qualified people. They would be selected from a local re-employment priority list. Since Norfolk NAVSHIPYD is our successor shipyard, the detachment would probably be picked up by Norfolk for payroll purposes.

The two key issues in making this a success are availability of NAVFAC funding for remediation and the identification of work in time (1 April 1996) to have Shipyard employees involved.

Mr. Lou Mintz wanted to know why Shipyard workers couldn't demolish some of the old buildings containing asbestos so that the sites could be redeveloped. Captain Augustin explained that NAVFAC was funded to clean up environmental hazards, but not to demolish buildings to make the sites more readily available for redevelopment. He explained that asbestos will not be abated unless the asbestos is damaged, friable and accessible.

10. Training SubCommittee.

Mr. Bobby Dearhart passed out a survey sheet to RAB members to determine the kind of environmental training that each member is interested in. He also asked for volunteers to serve on the Training Subcommittee.

Ms. Ann Ragan said that she had heard recently that DOD is changing its policy on providing funds for training of RAB members. The announcement should be coming out in the Federal Register after which time DOD will decide how best training can be funded.

11. Questions from Visitors.

Mr. Hubert Dixon asked Mr. Ralph Laney about medical surveillance at the Charleston Naval Hospital for Shipyard workers involved in environmental cleanup to determine long term health effects. Mr. Laney explained that the Dispensary would be going away when the Shipyard closes and that the Charleston Naval

Hospital would be asked to provide services. It would provide a program to monitor asbestos workers.

Mr. Arthur Pinckney wanted to know if there was any program to re-employ and train workers already laid off. Mr. Laney said that there is no program in place at the Shipyard.

Workers can apply for temporary employment, but temporary employment did not provide benefits other than a paycheck. Also, there has been Department of Labor Job Training Partnership ACT (JTPA) money ($15 million) made available to the County for retraining of workers who have already lost their jobs. This is administered by the State.

Captain Augustin asked for someone from SOUTHNAVFAC to clarify the contract provisions for hiring government workers. Mrs. Kim Reavis from the SOUTHNAVFAC Contracts Department said that there was currently no provision in contract documents for hiring displaced Shipyard workers.

11. Administrative Remarks.

Captain Augustin announced that EnSafe/Allen & Hoshall was willing to set up the testing equipment again at the next social hour on 11 April.

He also announced that the Public Affairs Officer, Mike Shumate, has accepted another position and would no longer serve the RAB. Also, Pat Franklin has accepted another position at Southern Division and will no longer be the BRAC Environmental Coordinator.

Ms. Susan Floyd commented on the good job that Mike Shumate has done and asked that Captain Augustin push hard to get another Public Affairs Officer as quickly as possible.

12. Adjournment. The meeting was adjourned so that the Community members of the Restoration Advisory Board could caucus for a new Community Co-Chair. The term of Mr. Van Robinson expired tonight.

It was announced that the next meeting is scheduled for 11 April 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 pm to 9:00 pm with a Social Hour beginning at 6:00 pm.

Postscript to the minutes:

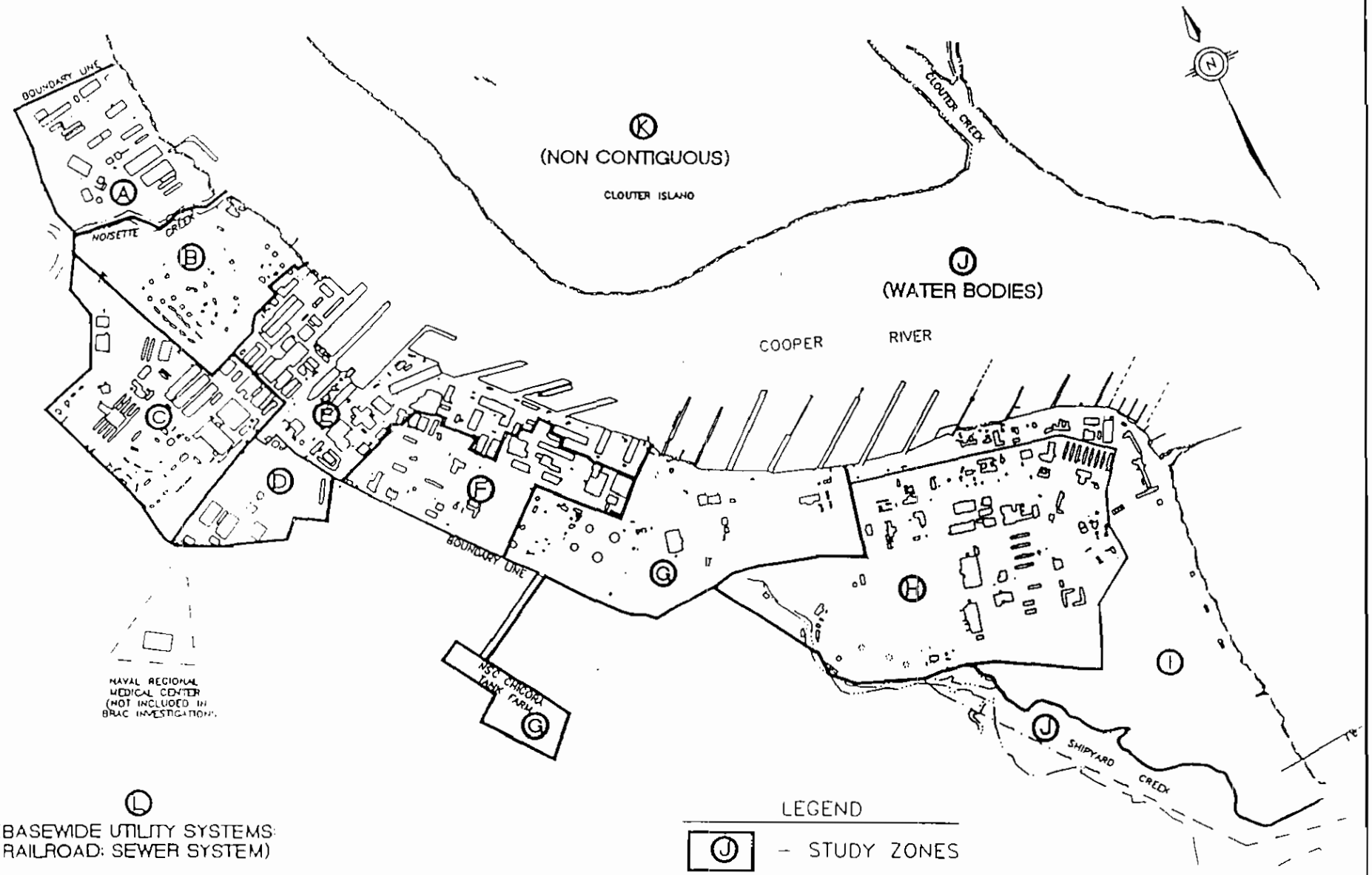
Ms. Jacquelyn White was selected as Community Co-Chair for the coming year.

Minutes approved by:

J. H. AUGUSTIN Co-Chairman	VAN ROBINSON Co-Chairman

Attachments to minutes:

(1) Base Zone Boundaries Map
(2) Environmental Briefing Slides (Doyle Brittain, EPA)



L
(BASEWIDE UTILITY SYSTEMS: RAILROAD: SEWER SYSTEM)

LEGEND

J – STUDY ZONES

2000 0 2000
SCALE FEET

SOURCES: SOUTHERN DIVISION, NAVAL FACILITIES ENGINEERING COMMAND

NAVAL BASE CHARLESTON
CHARLESTON, S.C.

FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES

DWG DATE: 01/13/95 | DWG NAME: 29ZONE1

Enclosure (1)

Two Environmental Processes

1. National Environmental Policy Act (NEPA)

- Looks to the Future
- Assesses the Impact of Proposed Actions on Human Health and the Environment, i.e., an Environmental Impact Statement (EIS)
- Minimizes Future Adverse Environmental Impact Resulting Actions from Implementation of Proposed Actions
- Considers Land Use Based on Land Use Restrictions
- Involves the Public in the Decision Making Process

2. Resource Conservation and Recovery Act (RCRA)

- Looks to the Past and Present
- Assesses the Impact of Past and Present Actions on Human Health and the Environment, i.e., Corrective Action
- Cleans up Past and Present Contamination to an Acceptable Risk Based Level
- Imposes Land Use Restrictions on Select Areas, e.g., landfills
- Involves the Public in the Decision Making Process

Enclosure (2)

Key Points

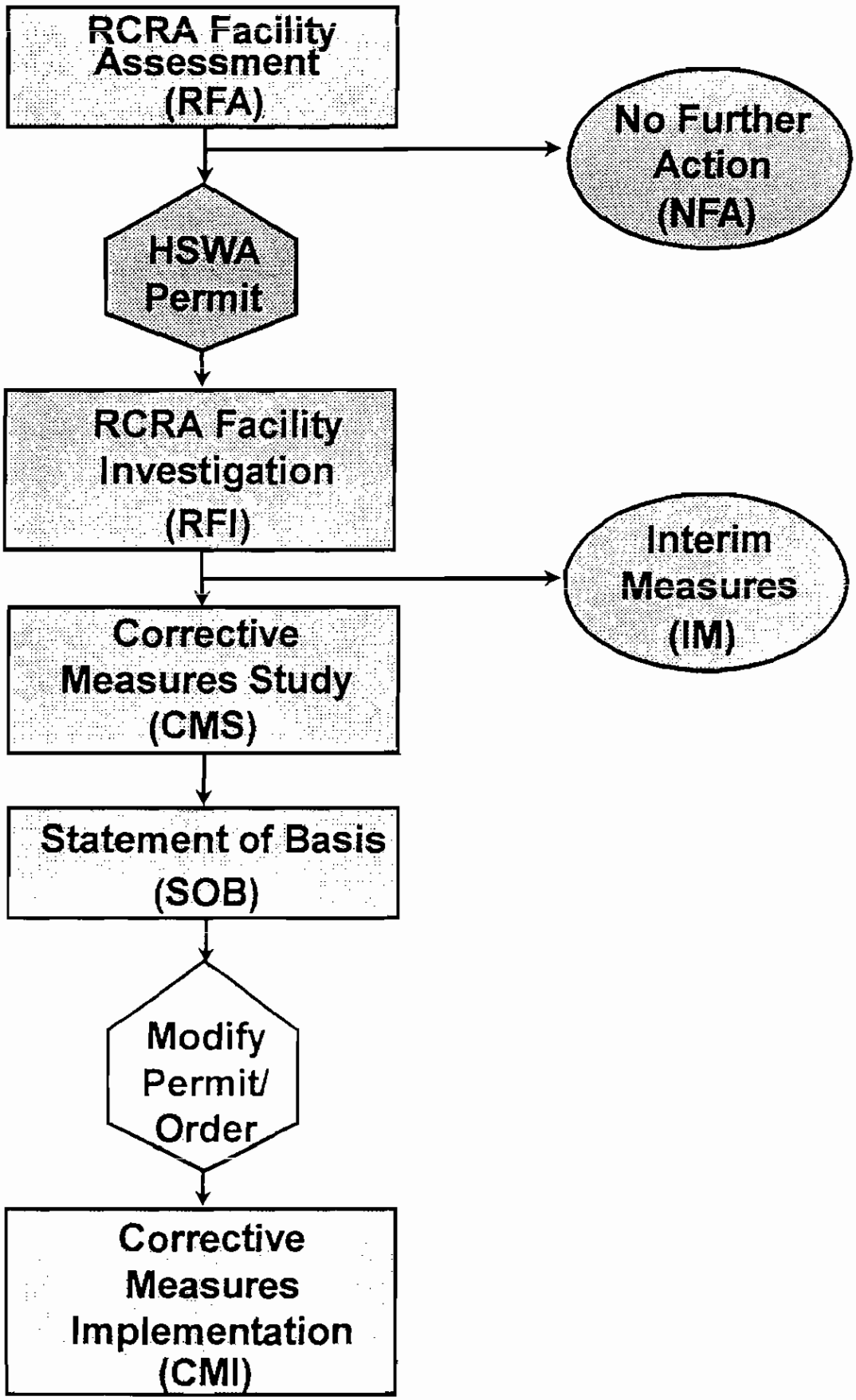
1. *Reuse Plan*

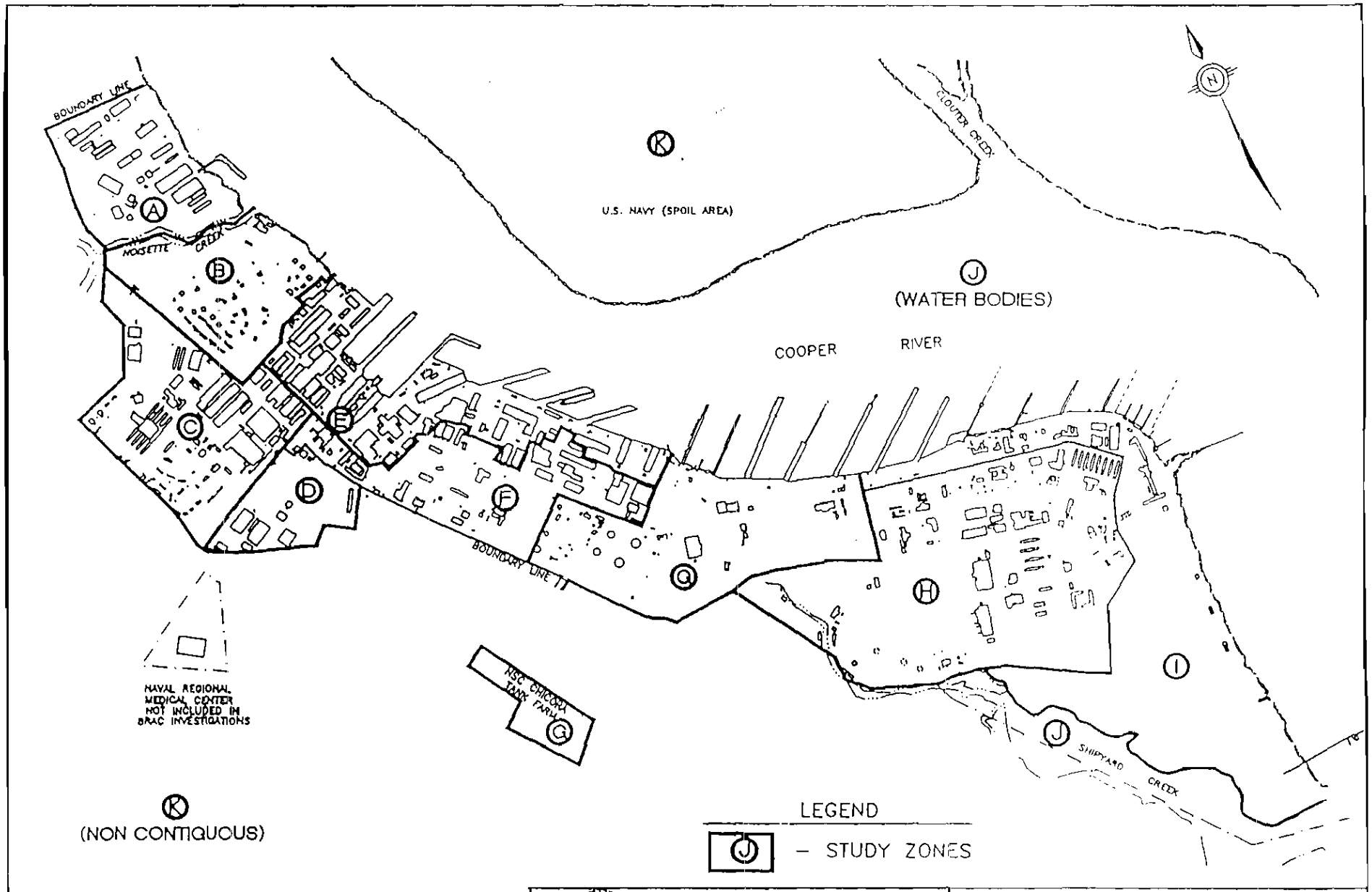
- The Reuse Plan is a Community Document
- The Reuse Plan Proposes Future Uses of the Properties hopefully in Light of NEPA and RCRA

2. *Environmental Impact Statement*

- The EIS is a Navy Document
- The EIS Considers the Reuse Plan, but is Constrained by RCRA among other Factors, e.g., Demographics, Clean Water Act, Clean Air Act, Toxic Substance Control Act, Endangered Species Act, National Historical Preservation Act, etc.

RCRA Process





2000 0 2000

SCALE FEET

SOURCES: SOUTHDIV, n.d. ESE, 1981.

BRAC CLEAN UP PLAN
NAVAL BASE
CHARLESTON

FIGURE 4-2
ZONE MAP

DWG DATE: 03/01/94 | DWG NAME: | ONE

Comparison of Normal RCRA Process to Fast-Track RCRA Process

	Charleston Normal	Charleston Fast-Track
RCRA Facility Assessment (RFA)	2 - 3 Years (Low Priority for Regulators)	4 - 6 Months (High Priority)
RCRA Facility Investigation (RFI)	=>5 Years (Low Priority)	=<3 Years (Planned)
Corrective Measures Study (CMS)	5+ Years	2 Years (Planned)
TOTAL	=>12 Years	=<5 1/2 Years
Statement of Basis (SOB) (Decision Document)	4 - 6 Months	4 - 6 Months
Corrective Measures Implementation (CMI)	1 Month - 30 Years	1 Month - 30 Years

NAVAL BASE CHARLESTON
RFI STATUS REPORT

ATTACHMENT C

ZONES C AND I
PRELIMINARY UNVALIDATED DATA

April 1995

NAVAL BASE CHARLESTON
RFI STATUS REPORT

ATTACHMENT C

ZONES C AND I
PRELIMINARY UNVALIDATED DATA

April 1995

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0391
JUN 06 1995

Mr. Doyle Brittain
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: FORWARDING OF THE MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT.

Dear Mr. Brittain:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of May, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Progress Report - May, 1995.

Copy to:
SCDHEC (Mr. Joe Bowers)
COMNAVBASE (N34)
COMNAVBASE (N4BEC, Dearhart, Fontenot, Franklin)
SOUTHNAVFACENGCOM (Hunt, Fielding, Stockmaster)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 May 95 TO 31 May 1995

I. INTRODUCTION

The following status report has been prepared to provide a monthly update on the progress of the RFI to members of the Naval Base Charleston (NAVBASE) BRAC Cleanup Team (BCT). Information provided in the monthly progress reports will also be summarized on a quarterly basis to satisfy condition II.E.3.a of the Part B Permit Renewal. This monthly status report has been prepared in a format similar to the quarterly report to help ensure that information pertinent to the RFI is transmitted to the BCT members on a more timely basis.

II. PORTION OF THE RFI COMPLETED

- The *Corrective Action Management Plan, Revision 1* and the revisions to the *Final Comprehensive RFI Work Plan* were submitted for approval to SCDHEC and USEPA on 22 May 95.

- The *Draft-Final Zone A and B RFI Work Plan* was submitted to SCDHEC and USEPA on 4 May 95 for review and comment.

- Development of the Zone C monitoring wells was completed. Surveying of all soil boring and monitoring well locations was also completed.

- Comments on the *Draft-Final Zone E RFI Work Plan* were received on 2 May 95. Efforts to revise the document and prepare a response to the comments were initiated. On 25 May 95, a meeting was held with USEPA and SCDHEC to review the response to comments to facilitate final changes to the plan.

- Validation of the Zone H analytical data was completed.

- Development of the Zone I monitoring wells was completed. Groundwater sampling was completed at 30 of the 55 wells.

- The *Draft Zone L RFI Work Plan* was submitted to SCDHEC and USEPA on 26 May 95 for review and comment.

- A test set of Zone H data was submitted on 17 May 95 to USEPA using the Interchange File Format (IFF). The purpose of the submission was to further evaluate the use of electronic media to transmit data.

III. SUMMARIES OF FINDINGS

A summary of the findings to date (soil only) in Zones C and I was presented last month based on a preliminary review of unvalidated analytical data. Attachment A updates the previous summary with the inclusion of data received during the month of May.

Based on analytical results from monitoring wells at SWMUs 17 and 20, and the apparent groundwater flow direction, it was determined that several additional wells needed to be installed to fully define the extent of contaminants detected. Four wells, NBCH-09-16 through NBCH-09-19) were installed along Hobson Avenue in an area upgradient of SWMU 20. Analysis of samples from these wells did not detect the presence of the compounds detected in groundwater at SWMU 20; however, several other volatile and semivolatile compounds were detected in one of the wells NBCH-09-16. Only benzene was detected at a concentration (2.8 μg/L) which exceeded a risk based screening level concentration (RBC). The reported concentration is below the 5 μg/L maximum contaminant level (MCL) concentration as promulgated by the Safe Drinking Water Act. The source of the compounds is suspected to be SWMU 8 (oil sludge pits) which is hydraulically upgradient in Zone G. Two wells, NBCH-17-05 and NBCH-17-06 were installed at SWMU 17 in an area downgradient of previously detected groundwater contamination. Analysis of samples from these wells did not reveal the presence of any compounds above RBCs or MCLs. Chlorobenzene, which is a contaminant in site wells, was detected in one of the wells at 3.6 μg/L.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations form the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the May 1995 meeting and the minutes of the April 1995 meeting are provided as Attachment B. The minutes of the May 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

The April 95 status report indicated the need to submit copies of all the subcontracted laboratories quality assurance plans (QAPs) for review by SCDHEC and USEPA. Additionally, USEPA requested that all of the laboratories performing work for the NAVBASE Charleston RFI be willing to participate in an audit of their facility by USEPA personnel. During the current reporting period, the Navy submitted to SCDHEC and USEPA, letters from each of the laboratories stating they are willing to participate in an audit and the respective laboratories QAPs.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. Two changes in key Navy personnel occurred during the month of May. Daryle Fontenot replaced Pat Franklin as one of the BRAC Environmental Coordinators (BEC). Thuane Fielding was moved from the Engineer-in-Charge position to a Contracting Officers Technical Representative (COTR) position. A replacement for Ms. Fielding has yet to be named.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The *Draft Zone H RFI Report* and the *Draft CMS Work Plan* are due to be submitted to SCDHEC and USEPA for review on 28 June 95.
- The *Draft Focused Field Investigation Technical Memo* is anticipated to be submitted along with the *Draft Zone H RFI Report* to the USEPA and SCDHEC for review and comment.
- The *Final Zone E RFI Work Plan* and a response to comments document are scheduled to be submitted to SCDHEC and USEPA on 5 June 95.
- An amendment to the *Final Zone H RFI Work Plan* will be prepared to address sampling at SWMU 159 which was a late addition to the RFI based on identification through the ongoing RFA process.
- The *Draft Zone J RFI Work Plan* is scheduled to be submitted to SCDHEC and USEPA for review on 9 June 95.
- Review of the Zone C and I analytical data will continue in an effort to identify any data gaps which may exist.

VIII. PROJECTED WORK (Continued)

- Preparation of the draft work plan for Zones D, F, and G is scheduled to begin 30 June 95.
- Volumes I through V of the *Final RCRA Facility Assessment* are scheduled to be submitted to SCDHEC and USEPA on 9 June 95.

Field Activities:

- Sampling of the newly installed monitoring wells in Zones C and I will continue.
- Where necessary, a second round of sampling will be initiated to fill data gaps identified in Zones C and I.
- Upon acceptance of the *Final Zone E RFI Work Plan* by SCDHEC and USEPA, field work will begin.
- Coordination for subcontract services necessary for the Zone E RFI field work will begin.
- Sampling will be conducted at SWMU 159 in Zone H.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Attachment C is a copy of the analytical data for Zones C, H and I received during the month of May. At the present time, all data included in the attachment should be regarded as preliminary and used for informational purposes only as it has yet to be validated. At the present time, data packages from the additional samples collected in Zone H have not been received.

Zone C Summary Site Description and Preliminary Unvalidated Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 508 INCINERATOR	Former Incinerator 19 operated from 1922 until 1929. Its exact dimensions and operating practices are unknown. Currently the site is a grassy area west of Avenue H and north of AOC 511.[a]	Metals Petroleum Hydrocarbons Products of Incomplete Combustion Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Metals, and Total Petroleum Hydrocarbons (TPH)	Pesticides[c] SVOCs Metals[c]
AOC 510 GEOTECHNICAL LABORATORY	Building NH-21 is a geotechnical laboratory and equipment storage area. This site has historically been used as a fireproof warehouse (1919-1947), a washroom (1947-1955), a paint shop (1955-1962), storage area (1962-1977), and a geotechnical laboratory (1977-present). A covered pit is on the west side of the building.[a]	Paints Acetone Solvents Laboratory Chemicals Methylene Chloride Methyl Ethyl Ketone (VOCs, SVOCs, and Metals)	SVOCs Metals[c]
AOC 511 OIL STORAGE	Former Building 16 was used for oil storage from 1922 until approximately 1955. The design features and operating practices of this facility are unknown. Currently the site is a grassy area west of Avenue H and north of Building 762.[a]	Petroleum Hydrocarbons (VOCs, SVOCs, and TPH)	Metals[c]
AOC 512 INCINERATOR	Former Incinerator 67 operated from 1943 until 1958. Currently, the site is a grassy area southwest of Building 1079.[a]	Metals Petroleum Hydrocarbons Products of Incomplete Combustion (VOCs, SVOCs, Metals, and TPH)	SVOCs Metals[c]
AOC 513 MORGUE	A morgue operated at this site in the early 1920s. The waste disposal practices of this facility are unknown. Currently the site is a grassy area southwest of Building NH-55.[a]	Alcohol Creosote Formaldehyde (VOCs and SVOCs)	None Detected at this time.

Zone C Summary Site Description and Preliminary Unvalidated Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 515 INCINERATOR	An incinerator operated at this site in the 1920s and a paint shop replaced it in the 1930s. Currently, it is a gravel parking area east of AOC 519.[a]	Oils Paints Solvents Products of Incomplete Combustion Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
AOC 516 WASH AREA/BATTERY CHARGING	Building 233 was used for spay washing vehicles and equipment from 1972 until the 1980s. Currently it is used as a lead-acid battery charging facility.[a]	Lead Metals Solvents Battery Acids Petroleum Hydrocarbon (VOCs, SVOCs, Metals, and TPH)	SVOCs Metals[c]
AOC 517 FIRING RANGE	From 1959 until 1974, Building M192 was used as an indoor firing range. Currently it serves as a classroom and storage area.[a]	Lead Metals (Metals)	No data received at this time.
AOC 518 COAL BINS	Coal was stored in bins at this site from 1926 until 1937. The design or construction of the coal bins is unknown. Currently this site is a gravel and asphalt parking lot and a portion of the area underlying Building M-1257.[a]	Coal Coal Derivations (Metals)	Pesticides[c] SVOCs Metals[c]
AOC 519 BOILER HOUSE	A boiler house for the Navy Brig operated at this site from 1922 until 1929. Currently this site is a gravel parking area east of Building NH-55.[a]	Coal Coal Derivations Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.
AOC 520 GARBAGE HOUSE	Former Building M-1051 was a garbage house for a Marine barracks in the 1920s through the 1940s. Currently the site is an asphalt parking lot north of Building M-17.[a]	Domestic Wastes (VOCs, SVOCs, Metals, TPH, pesticides and PCBs)	Pesticides[c]
AOC 523 GAS STATION	Former Gas Station (M-1234) operated from 1958 until 1962. Currently the site is covered by the southeastern portion of Building 198. It is unknown if Underground Storage Tanks (USTs) are present.[a]	Lead Petroleum Hydrocarbons (VOCs, SVOCs, Metals, and TPH)	No data received at this time.

Zone C Summary Site Description and Preliminary Unvalidated Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
SWMU 44 COAL PILE	The coal storage yard began operations in the 1940s and is used for unloading coal railcars and for the intermediate storage of coal before use at the steam-generation plant (Building 32). The coal pile is currently 80′ x 400′.[a]	Coal Coal Derivatives (Metals)	Metals[c] SVOCs
SWMU 47 BURNING DUMP	This site was a burning dump during the 1920s. Currently, it is an asphalt and grassy area on which Buildings NSC-64, NSC-66, and NSC-67 are located. Petroleum product spills have been reported at these buildings in recent years.[b]	Petroleum Hydrocarbons Products of Incomplete Combustion Medical Waste (VOCs, SVOCs, Metals, and TPH)	Metals[c] SVOCs

Notes:

[a] Described in the *Draft Final RCRA Facility Assessment*, Volume II, November 1994.
[b] Described in the *RCRA Facility Assessment*, August 1987.
[c] The concentrations detected may be indicative of background.

Zone I Summary Site Description and Preliminary Unvalideted Soil Results			
Site	**Description**	**Materiels Generated or Stored**	**Preliminery Analytical Results**
AOC 671 METERING HOUSE, FORMER BUILDING 3905G, AND SURROUNDING AVIATION GASOLINE COMPOUND	Aviation Gasoline compound operating from the 1940s until the 1960s. Two 25,000-gallon concrete tanks and the possible foundation of the truck load stand still exist. There is no evidence of the metering house, or any other ancillary structures at this time.[a]	Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons and Heavy Metals	Pesticides[c] SVOCs Metals[c]
AOC 672 BUILDING 126 SUBSTATION	Substation containing transformer and switch gear to support electrical grid. Facility dates from WWII era with a modification in 1950. Transformer reported to have had a moderate leak in 1981. Tests completed in 1987 showed transformer was PCB contaminated (73 ppm). Present equipment all non PCB.[a]	Dielectric fluids	Pesticides[c] Metals[c]
AOC 673 BUILDING 169 PAINT AND OIL STORAGE	Building used to store paint, oils, solvents, and other support materials. Former location of 2 25,000-gallon underground storage tanks.[a]	Paints, oils, and solvents. VOCs and Petroleum Hydrocarbons	Pesticides[c] Metals[c]
AOC 675 FUEL OIL STORAGE TANK NS-4	A 25,000-gallon UST supporting the boiler in Building NS-2. Held residual oil (No. 5) from time of installation in 1952 until conversion to diesel fuel in 1991. Additional USTs are near NS-3, adjacent to the west.[a]	Residual fuel, diesel fuel, aviation gasoline, and fuels from past operation.	Pesticides[c] Metals[c]
AOC 676 FORMER INCINERATOR	An incinerator operated before the construction of NS-2 area. There is no information regarding the type of structure that existed, the type of incinerator, or the materials incinerated at this facility.[a]	Ash — potentially high in metals, petroleum products.	Pesticides[c] SVOCs
AOC 677 GROUNDS OF BUILDING NS-2	The grounds around Building NS-2 have been the site of a number of petroleum spills associated with the operation of the boilers in NS-2. Spill reports indicate a number of releases since 1977. This also is near the location of seaplane refueling operations conducted during the 1940s.[b]	Residual fuel, diesel fuel, aviation gasoline, and lead.	Pesticides[c] Metals[c] SVOCs

Zone I Summary Site Description and Preliminary Unvalidated Soil Results			
Site	**Description**	**Materials Generated or Stored**	**Preliminary Analytical Results**
AOC 678 FIREFIGHTER SCHOOL, FORMER BUILDING V-2	Former Firefighter School and potential site of controlled burning of ignitable materials.[a]	Petroleum (volatiles, light hydrocarbons)	Pesticides[c] Metals[c] SVOCs
AOC 679 FORMER WASH RACK	Former location of wash rack.[a]	Petroleum (oil & grease, heavy hydrocarbons)	Pesticides[c] Metals[c] SVOCs
AOC 680 GRINDING ROOM BRAKE REPAIR AREA	Former Grinding Room/Brake Repair Area in NS-26.[a]	Asbestos dust	No data received at this time.
AOC 681 BLAST BOOTH	Blast Booth in Building 681 used to strip miscellaneous components.[a]	Lead-based paint Aluminum oxide	Metals[c] SVOCs
AOC 685 FORMER SMOKE DRUM SITE	Former Smoke Drum; use unknown.[a]	Products of incomplete combustion	Pesticides[c] Metals[c] SVOCs
AOC 687 AMMUNITION STORAGE BUNKER	Ammunition Storage Bunker X-55 used to store explosives and paint.[a]	Explosives Paint waste	Metals[c]
AOC 688 AMMUNITION STORAGE BUNKER	Ammunition Storage Bunker X-56 used to store explosives and paint.[a]	Explosives Paint waste	No data received at this time.
AOC 689 SOUTHERN TIP OF THE BASE (Marina Parking Area)	The marina parking area was reportedly used for unauthorized disposal of unknown materials during filling activities.[a]	Dioxin	No data received at this time.
AOC 690 DREDGED MATERIALS AREA ROADS	Dredged Materials Area Roads are reported for unauthorized disposal of chemicals and other hazardous wastes by ship personnel.[a]	Petroleum products; Unknown materials	Pesticides[c] Metals[c] SVOCs
SWMU 12 OLD FIREFIGHTER TRAINING AREA	Old firefighter training area consists of a shallow pit into which flammable liquids were pumped, ignited, and then extinguished.[a]	Petroleum Hydrocarbons Coal Ash SVOCs and Metals	Metals[c] SVOCs
SWMU 16 PAINT STORAGE BUNKER	Roof of Storage Bunker X-55 used for unauthorized open storage of small quantities of paint and other materials with a spill history.[b]	Paint wastes and Paint thinner	No data received at this time.

Notes:

[a] Described in the *RCRA Facility Assessment*, June 13, 1994 (revised November 1994).
[b] Described in the *RCRA Facility Assessment*, August 1987.
[c] The concentrations detected may be indicative of background.

2900-04260

Tuesday, May 9, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6:00 PM NORTHWOODS ATRIUM (Best Western) off Interstate 26 at Ashley Phosphate Road

RAB members, BRAC Cleanup Team, on hand to informally discuss cleanup topics.

7:00 PM Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Observations, concerns, comments by RAB members

D. Environmental Cleanup Progress Report — Mr. Tony Hunt
Summary of Zone H Sampling Findings

E. Update on Environmental Impact Statement

F. Update on Redevelopment Authority

G. Base Closure Status — Captain Augustin

H. Public Relations Subcommittee Report — Mrs. Pat Franklin

I. Training Subcommittee Report

J. Remaining Questions and Comments from Visitors

K. Other Business, Announcements

Please mark your calendar: Our next meeting is Tuesday, June 13, same time and location.

Naval Base Charleston Closure Summary (as of 8 May 1995)

Mission Closure:	1 Oct 1995
Operational Closure:	1 April 1996 (disestablishment of COMNAVBASE and other major commands).
Direct Employment:	All Navy Charleston - (includes Weapons Station, NISE East, NAVHOSP, etc.) Original Baseline (27,300): 18,000 military 9,300 civilian Now On board (14,100): 9,600 military 4,500 civilian Post Closure (7,100): 3,600 military 3,400 civilian
Fleet Assets:	Of the 40 ships and subs homeported in Charleston at the BRAC decision, (25 ships and 15 submarines) 38 go away -- either to other homeports or through decommissioning. 2 AE's remain at Naval Weapons Station. Submarine Group 6, Destroyer Squadron 36, and Submarine Squadron 4 already decommissioned. Cruiser Destroyer Group 2 and Destroyer Squadron 20 moved to Norfolk. Current count: 11 ships (including 2 AE's) -- all subs gone 31 March 95.
Shore Assets:	Naval Shipyard, Naval Station and Naval Base to disestablish. Of 68 commands affected by BRAC, 22 to disestablish, 30 to relocate, 16 to remain. Current count: 53 commands remain as of 8 Apr 95.
Land and buildings:	1600 acres to be excessed, 834 structures to be excessed
Environmental Impact Statement:	To be completed, July 1995
Redevelopment:	July 93 - BEST Committee (Building Economic Solutions Together) 45 members Aug 94 - Redevelopment Authority (RDA) 12 member board replaced BEST. March 1995 - RDA disintegrated because of local politics. May 1995 - RDA reconstituted as a 7-member board.
Reuse Plan:	Completed in June 1994, plan may change as commercial firms propose reuse.
Reuse Emphasis:	Current emphasis: attracting shipbuilding, ship repair firms, Response received on Request-for-proposals.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 11 April 1995

1. Call to Order. The meeting was called to order by Captain Jim Augustin, Co-Chairperson. He asked that members of the RAB and guests introduce themselves.

2. Introduction of the RAB.

Captain Jim Augustin	Ms. Jacquelyn White
Mr. Oliver Addison	Mr. Doyle Brittain
Mr. Robert Mikell	Mr. Steve Best
Mrs. Susan Floyd	LCDR Nick Cimorelli
Mrs. Pat Franklin	Mr. Arthur Pinckney
Mr. Donald Harbert	Ms. Wannetta Mallette
Mr. Ralph Laney	Mr. Bob Veronee
Mr. Lou Mintz	Ms. Ann Ragan
Mr. Van Robinson	Mr. Wilburn Gilliard

3. Introduction of the Guests.

Mr. Tony Hunt	SOUTHNAVFAC
CDR Jim Moore	Chasn Naval Base Transition Officer
Mr. Tom Fresselli	Chasn Naval Base Closure Office
Mr. Malcolm Hursey	CHASNAVSHIPYD
LT Donna Murphy	Chasn Naval Base Public Affairs Officer
Mr. Joe Bowers	SC DHEC
Mr. David Walton	SC DHEC
Mrs. Jean Olano	SC DHEC
Mr. A. A. Ownby	SC DHEC
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Mr. Jeff Bennett	EnSafe/Allen & Hoshall
Mr. Lawson Anderson	EnSafe/Allen & Hoshall
Mr. Mark Haucher	EnSafe/Allen & Hoshall
Mr. Jay Cornelius	EnSafe/Allen & Hoshall
Mr. W. T. Blasingame	EnSafe/Allen & Hoshall
Mr. Fred Swan	EnSafe/Allen & Hoshall
Mr. Levin Ham	EnSafe/Allen & Hoshall
Mr. Sam Weatherford	EnSafe/Allen & Hoshall
Mr. Hubert Dixon III	Grassroots Conversion Coalition
Mrs. June Brittain	Concerned Citizen
Ms. Ledlie Bell	League of Women Voters
Mr. Pax Darlington	LCE
Mr. Richard Roller	Shaw AFB

4. Comments on Minutes and Opening Administrative Remarks.

Captain Augustin asked for comments on the minutes. They were accepted and will be placed in the respositories. Captain Augnstin congratulated Ms. Jacquelyn White on being elected new Community Co-Chair of the Restoration Advisory Board. He read a letter from Rear Admiral Oden thanking Mr. Van Robinson for his outstanding service as Community Co-Chair during the first year of the RAB.

Also, Mr. Robinson said that based on the last meeting statement that Doyle Brittain might not remain in Charleston as our dedicated EPA representative, he had written a letter to Region IV EPA. He read a letter from the Head of Federal Facilities Division, Region IV EPA, Mr. Jon Johnston, assuring the RAB that Mr. Brittain would remain in Charleston. This was excellent news for anyone involved or interested in the environmental cleanup and reuse of the Naval Complex.

5. Observations, Concerns and Comments by RAB Members.

Captain Augustin suggested a brainstorming session, facilitated by Mrs. Pat Franklin, to capture and focus on what was really on the minds of the RAB members. By sweeping the table of RAB members several times, the following observations, concerns, comments, etc., were brought out:

⇒ Need changes in monthly Progress Report - needs to be more descriptive

⇒ Need long term funding outlook

⇒ Need report from military on base closure

⇒ Ms. Mallette will give monthly brief to N. Charleston City Council on RAB

⇒ Need sampling results from Zone H, what contaminants have been found

⇒ Need more community participation

⇒ Need to "tap" RAB talent - get members more involved in decision making

⇒ Funding

⇒ Public Affairs Officer for RAB

⇒ Members need to visit sites on Base

⇒ Cleanup of storm water management system

⇒ Accelerate identification of remediation work

⇒ Site at Chicora

⇒ Need to look at other environmental issues; i.e., asbestos, tanks

⇒ Need a better way to get information on meetings out to public

⇒ Need to check on Fact Sheets - are they getting out to the people?

⇒ Need to get local press out to the RAB meetings

⇒ Need to put article in Business Section of Post & Courier the day before a RAB meeting

⇒ Concern about not using former CHASNAVSHIPYD workers for employment in cleanup work

This gathering of concerns was done to find out what RAB members and the people they represent want to know and are interested in. These concerns will be used in the future to develop meeting agendas and have roundtable discussions.

6. Environmental Cleanup Progress Report.

Mr. Tony Hunt, Remedial Project Manager for Charleston Naval Complex, gave a Cleanup Progress Report. He explained that he is responsible for managing the environmental investigation and remediation required by the Resource Conservation and Recovery Act (RCRA). EnSafe/Allen and Hoshall is the prime contractor for the investigation and Bechtel or the Shipyard Detachment would perform the actual remediation. Mr. Hunt described how the Base was divided up into various Zones for purposes of investigation:

Zone A	Warehousing and scrap metal yard (DRMO Facility)
Zone B	Golf Course and residential
Zone C	Office Space and warehouse
Zone D	Parking Area and Warehousing
Zone E	Shipyard
Zone F	Recreational Areas
Zone G	Fuel Farm and Waterfront
Zone H	Southern end of Base, excluding waterfront
Zone I	Southern tip of Base, including waterfront
Zone J	Waterbodies and land based ecological areas
Zone K	Non-contiguous areas
Zone L	Storm Sewer System, Sanitary Sewer System and Rail System

(For future reference purposes, a map showing the locations of these zones is included as an attachment to these minutes.)

Mr. Hunt passed out the Monthly RCRA Facility Investigation (RFI) Progress Report for March 1995. Zones A,B,C,H and I are fully funded through the Corrective Measures Study (CMS) phase. Zone E is funded through Calendar Year 95 and Zones J and L are funded for the RFI Work Plans only. Zones A,B,J and L Workplans are being prepared but have not yet been submitted to EPA and SC DHEC for approval. Money is also available for early interim actions if they are identified. Approximately $21 million has been funded thus far.

Final resolution of Volumes I through III of the RCRA Facility Assessment (RFA) is ongoing. The RFA consists of document searches, site visits and personnel interviews to determine which sites require investigation.

Volumes IV and V of the RFA were submitted for regulatory approval.

Work Plans for Zones C and I have been approved. Regulatory review of the Work Plan for Zone E continues.

Additional sampling is being done in Zone H (the area that contains the landfill and chemical disposal areas). Initially, a small number of biased samples were taken; that is, the areas suspected to be the most contaminated areas were sampled. After finding out the contaminants present, the sampling was expanded to determine the extent of the contamination; i.e., area and volume. The number of proposed samples and samples collected in Zone H will be in next months Progress Report. Mr. Hunt was pleased to announce that there are currently three drill rigs working on base.

Mr. Lou Mintz asked what was being found in the samples. Mr. Hunt said that petroleum was being found which was expected. Some PCBs were found. Mr. Todd Haverkost said that the petroleum contamination was mainly limited to the soil and that despite tidal action, only minor groundwater contamination associated with the landfill had been found.

Ms. Susan Floyd asked that EnSafe/Allen and Hoshall prepare a report on what was being found. Mr. Hunt said that a table had been prepared listing all of the known contaminants, but that the RFI Report for Zone H would be submitted in June. Mrs. Pat Franklin said that she would make the previously prepared table available to the RAB.

Activity for April will be to continue Zones C and I field work and submit the Corrective Action Management Plan (CAMP) to EPA and SC DHEC for approval. Also, negotiation of the contract for development of Work Plans for Zones D, F and G, and implementation of the Work Plans for Zones J and L should occur.

For information, subcontracts have been awarded to three local businesses for various sampling and analytical services related to field work.

In summary, Mr. Hunt reported that all field work and funding are on schedule. A copy of the briefing slides are attached to these minutes.

7. Update on Environmental Impact Statement.

Mr. Doyle Brittain of the EPA gave an update on the Environmental Impact Statement (EIS). He first clarified that the EIS belongs to the Navy. The Community is responsible for developing the Reuse Plan and the Navy addresses the impact on the environment if the Reuse Plan is implemented. The Draft EIS has been circulated for review and comment. There had been some discussion as to whether the EIS contained the Reuse Plan that was going to be suitable for the entire community. Consequently, the Navy has modified the schedule and they have incorporated Alternative 3b to take into consideration this additional concern.

The current schedule now for release of the final Environmental Impact Statement is:

14 April 1995	Contractor submits back to Navy in final form for review
26 May 1995	Navy submits to EPA and SC DHEC for review
9 June 1995	Available for public review/comments for 30 days
10 July 1995	End public review/comment period
10 July 1995	Submit Record of Decision

The Record of Decision is a legal and binding document which EPA and SC DHEC will "bless" and it becomes an enforceable document saying that this is the way the Alternative is going to be implemented at Charleston, SC.

The final EIS is incorporating Alternative 3b. The new Environmental Impact Statement will contain everything that was in the old one as far as all of the previous reuse alternatives. There have been comments and changes throughout the document. While it should be very similar to the previous EIS, you will need to read every page.

Copies will be available to all RAB members. A copy will be in the Repository for public review. The current Repository is at the Dorchester Road Library and arrangements are underway to set up another location. Mrs. Pat Franklin said that the EIS will also be available to review at the Main Library in Charleston on King Street. Mr. Brittain stressed how important document is and encouraged everyone to review it thoroughly, understand it and provide comments if appropriate. It is especially important the RAB members do this. The members need to take it out to the people they represent or to groups and get comments and send the comments in. The Navy is trying to be very sensitive to the public's concerns, but this is the public's last opportunity.

Mr. Brittain then asked for questions/comments.

Ms. Ledlie Bell commented that the Community wanted the Maritime Industrial Complex mostly at the Southern end of the Base whereas the Request for Proposals allowed for someone to propose to use the entire Base. She wanted to know if this presented a problem with the new EIS.

CDR Jim Moore, Base Transition Officer, said that Alternative 3b did away with the State Ports Authority Alternative and when the RFP went out, all 1,500 acres were offered in case there was a need for laydown areas, etc.

Mr. Brittain clarified that the boundaries identified in the previous EIS are not cast in concrete. The boundaries proposed were just a concept and aren't necessarily what EPA and SC DHEC will approve. There is a lot of flexibility to redefine the boundaries. Mr. Brittain said that he has a National Environmental Policy Act (NEPA) specialist reviewing this very closely and he hoped that all of the Resource Trustees and community representatives would take a very close look to make sure everyone is satisfied.

In response to Mr. Arthur Pinckney, Mr. Brittain explained that NEPA is a Federal Law that says when the government has any major undertaking that requires a lot of money or a change in property usage, it has to be determined what effect it's going to have on people, the ecology, traffic, the economy and even social life. NEPA looks at all possible impacts and it is the Federal Law that requires that an EIS be prepared.

Ms. Susan Floyd asked if another EIS would be prepared after public comments this time and Mr. Brittain said there would not be. This is the final one. Ms. Ann Ragan also asked if more public hearings would be held and Mr. Brittain said there probably would not be, but that the Navy has a legal responsibility to publicize the new EIS. The public will be given the opportunity to comment, but probably not in formal public hearings.

Mr. Hubert Dixon asked whether a public hearing would have to be held if one was asked for through the RAB members. Mr. Brittain said he would have to confer with Navy officials in charge of the EIS and would have the answer at a later meeting. Mr. Dixon also wanted to know if the 30-day public comment period could be extended beyond 10 July. Mr. Brittain said that the 30-days could not be extended because it was set by law.

8. Update on Redevelopment Authority.

The RDA representative, Mr. Ray Anderson, was unable to attend the meeting because of a business trip. He submitted a letter read at the meeting by Captain Jim Augustin. Mr. Anderson's letter is attached.

9. Proposed Chicora Tank Farm Approach.

Mr. Bob Veronee, the Safety and Environmental Manager for the Fleet Industrial Supply Center (FISC), gave a presentation on the Chicora Tank Farm. The Chicora Tank Farm is located off the Naval Base in the Chicora neighborhood near Chicora School. The decision to close the Tank Farm was a pre-BRAC decision. It was to be closed whether or not the Naval Base Complex closed. The tanks on Chicora Tank Farm are called "cut and cover". They are concrete - about 50% below ground and 50% above grade. They are covered with a mound of earth.

Some of the members questioned whether the animals would be removed during this work and also whether the work would go on while school was in session. Mr. Veronee said that the animals would be removed. Also, the schedule can be arranged to have the work done while the school is empty.

Through the Installation Restoration (IR) Program some test wells have been installed. There has been no groundwater contamination detected. Also there is no indication of soil contamination from fuel stored at the Farm. The only contamination found was motor oil runoff from the roadway.

At the present time, the Defense Fuel Supply Center (operator of the Tank Farm) is awaiting funding for demolition. Once funding is received, an Architect/Engineer (A&E) contract will be awarded to decide how to approach the demolition. Once the A&E comes up with the demolition plan, bids will be taken to accomplish the work. However it is decided, once the demolition is finished, the field will be level. It will probably be turned over to North Charleston or Charleston County for recreational purposes.

Ms. Susan Floyd and Mr. Arthur Pinckney wanted clarification on funding. Mr. Veronee said that this closure would not be BRAC funded. The facility is operated by the Defense Fuel Supply Center (DFSC) which comes under the Defense Logistics Agency (DLA) and funding will ultimately come from DLA through DFSC. This is not a Naval Installation but the Navy will oversee the demolition. If contamination is found at a later date on the land, BRAC funding will take over for the remediation.

Mrs. Pat Franklin said that even though the Tank Farm is not related to the Navy or to BRAC, she had asked Mr. Veronee to talk about it due to the interest expressed by the Chicora neighborhood residents.

10. Public Relations Subcommittee Report-RAB Brainstorming Meeting.

Mrs. Pat Franklin announced that a meeting had been held earlier in the day. One of the items discussed was changing the name of the Restoration Advisory Board to something that would tie it in with Environmental Cleanup of the Naval Base. Some of the names considered were Naval Base Charleston Environmental Advisory

Board, Cleanup Advisory Board, Environmental Advisory Board, and Environmental Restoration Advisory Board. It was decided to table this until the next RAB meeting and reach a consensus on a new name.

Fact Sheet No. 3 (Typical Site) is at the printers and should be going out this week. It will be mailed out to all of the RAB members and be finalized at the next meeting. The Subcommittee also reviewed Fact Sheet No. 4 which defines the differences between NEPA and RCRA.

Mrs. Franklin then asked for questions/comments.

Mr. Lou Mintz inquired as to whether the Subcommittee had given any additional thought to the "post card" mailouts. Mrs. Franklin said the idea had been dropped but it could be brought back up, especially if the RAB changes its name. A post card mailer could be used to announce the change.

Mrs. Franklin asked the group if there was any interest in having a separate "brainstorming" session just for RAB members. Brainstorming could include roles and responsibilities of RAB members, expectations of the RAB, what the RAB should be doing, how the RAB could get more community involvement, reformatting the meetings and those types of issues. RAB members agreed that it would be a good idea and will settle on a time that will be suitable for all.

11. Training Subcommittee Report.

Mr. Doyle Brittain said that Bobby Dearhart has volunteered to coordinate some training for the RAB. He will find out what kind of training will be needed and will work with members to get them trained. At present the Subcommittee consists of Bobby Dearhart, Jacquelyn White, Don Harbert and Bob Veronee and more members are needed to help define needed training. They've gotten some input as to the type of training desired. They are going to schedule a meeting shortly. He asked that members contact one of the Subcommittee members and give input as to type of training and when.

12. Additional Comments and Questions from Guests/RAB Members.

Mr. Doyle Brittain passed out a document entitled "Military Bases - Environmental Impact at Closing Installations" which was compiled by the General Accounting Office (GAO). This report was compiled as a result of the Defense Environmental Response Task Force (DERTF) meetings at various closing bases in January 1995. The report sets forth problems with closing the bases, status of the cleanups, how long it is going to take to clean up the environment, etc. The report identifies a number of problems such as unexploded ordnance, landfills, and contaminated groundwater at other military bases. The report doesn't mention anything about what's going on at Charleston, other than it's been looked at, which probably means that they think Charleston is doing a good job.

Mr. Lou Mintz commented that he would like to see a report from the Navy occasionally on how the Navy feels closure is going. Captain Augustin said that the Navy had just recently prepared a report in anticipation of a visit by the Chief of Naval Operations. The single page summary talks about when closure started, how many ships and submarines there were then, how many now, how many shore commands, how many buildings, acres, etc. Captain Augustin said he would provide a brief at the next meeting and that overall closure is on schedule and being done in a cost saving way.

Mr. Doyle Brittain said he wanted to say that the EPA feels that the Navy is very pro-active. For instance, EPA sent him to the Naval Base Complex as a dedicated EPA representative at the request of the Commander of the Charleston Naval Base. The Commander wanted to insure that the Navy was cooperating with the EPA and the State. Mr. Brittain said that the Navy has been a pleasure to work with in his two years here in Charleston. He said that once a problem is identified, the Navy is eager to fix it. There are a lot of military installations that don't have that mind set. He said that he appreciated the attitude of the Naval Base in being a partner with the EPA and SC DHEC.

Mr. Arthur Pinckney asked for a clarification on the Partnering Agreement among the DOD, Navy, EPA, and SC DHEC. It was explained that at the first BRAC Cleanup Team Meeting the agencies decided to develop ground rules on how they wanted to operate and what they hoped to accomplish.

Mr. Pinckney also wanted to know if the RAB could do mailouts on the answers to some of the questions he has asked as a Community Representative on the RAB. He said he knew the questions and answers were addressed in the minutes and were on file at the repository but that a lot of people don't get to the repository to read the minutes.

Captain Augustin said that one Fact Sheet had addressed the "Ten Most Asked Questions." He said a new Fact Sheet could address more.

Ms. Susan Floyd suggested putting a couple of questions and answers as a footnote to every Fact Sheet until all of the questions are covered.

Ms. Ledlie Bell thanked Captain Augustin for suggesting a new name for the RAB. She strongly believes that the name should include the word "cleanup." She said it was the word that the community wants to hear and the economic developers need to hear. Also, cleanup is the major focus of the RAB.

Ms. Bell also said that as part of the RAB public relations, she would somehow like to get out to the public that EPA has an on-site representative, Doyle Brittain, and that it was the Navy that wanted him here. This will let the community know that Charleston is a model in Base cleanup and is trying to do the right thing. She said

she was also pleased that Ms. Wanetta Mallette would be reporting to the North Charleston City Council.

Ms. Bell asked if there was still a focus on having Shipyard workers do cleanup work. Mr. Ralph Laney said that NAVSEA/NAVFAC/Charleston Shipyard/Norfolk Shipyard were working out the details. The key elements are whether the work will be identified in time to do it and whether there will be money to do remediation work.

Mr. Hubert Dixon suggested that media releases be sent out prior to meetings. LT Donna Murphy said that this was being done, but for some reason the RAB just isn't getting publicity - probably because it does not sell newspapers. He agreed that it was the medias fault and not the RAB that the meetings are not covered or reported on. He suggested that members of the RAB might consider writing letters to the editor of the Post and Courier because the public needs to know that cleanup is taking place.

Captain Augustin reminded guests that "sign-up" sheets for mailings were available and urged everyone to sign up and also put down a neighbor or acquaintance to try and publicize the RAB and get more guests at the meetings. Guests can also call the Base Closure Office and request mailings.

Captain Augustin announced that the Air Force Base had recently requested to join our RAB rather than creating one of their own. Although this reflects favorably on our RAB, it was strongly recommended that this would not be a good idea for many reasons.

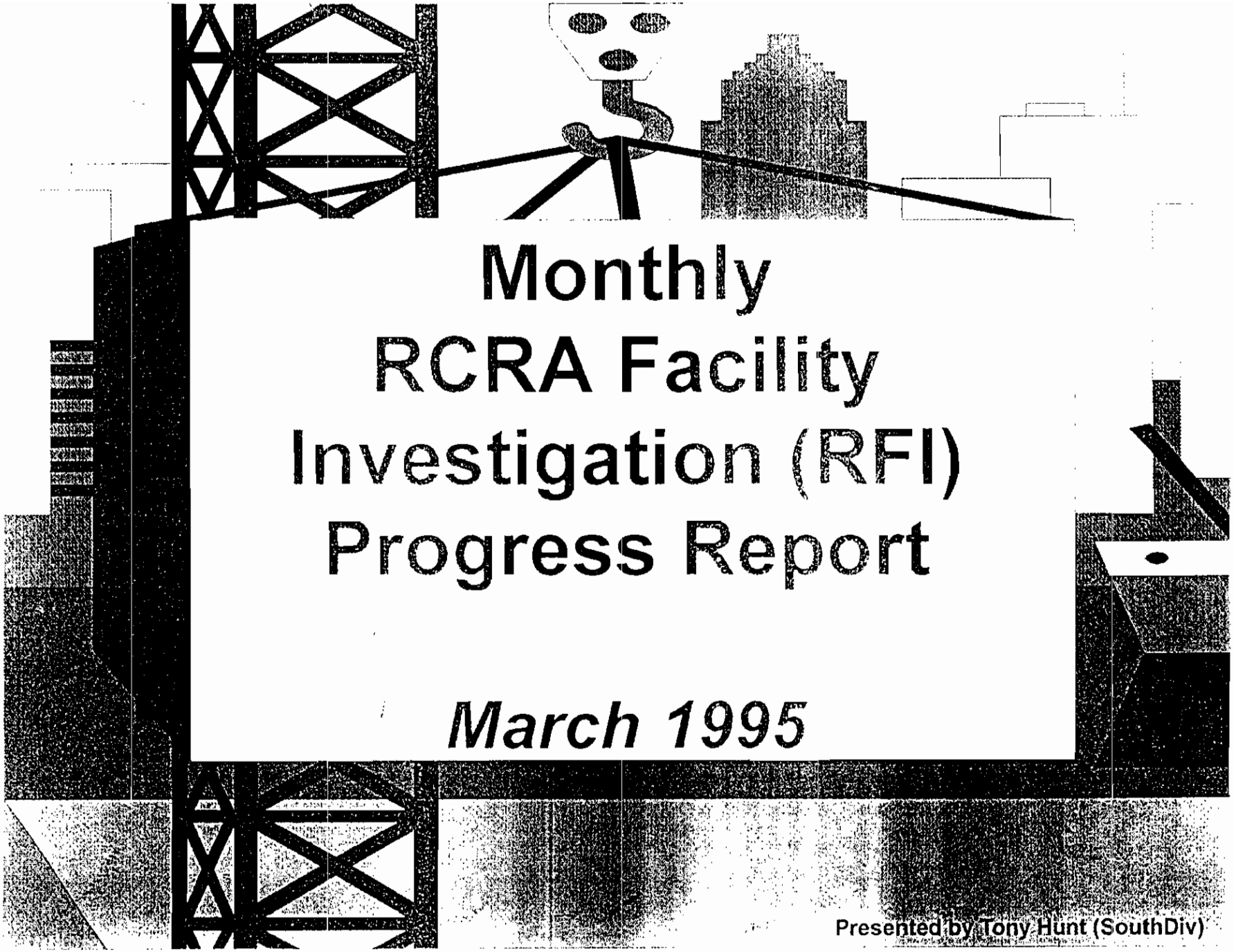
13. Adjournment.

It was announced that the next meeting is scheduled for 9 May 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 pm to 9:00 pm with an Informal Discussion beginning at 6:00 pm. The meeting was adjourned.

Minutes approved by:

J.H. AUGUSTIN Co-Chairman	JACQUELYN WHITE Co-Chairman

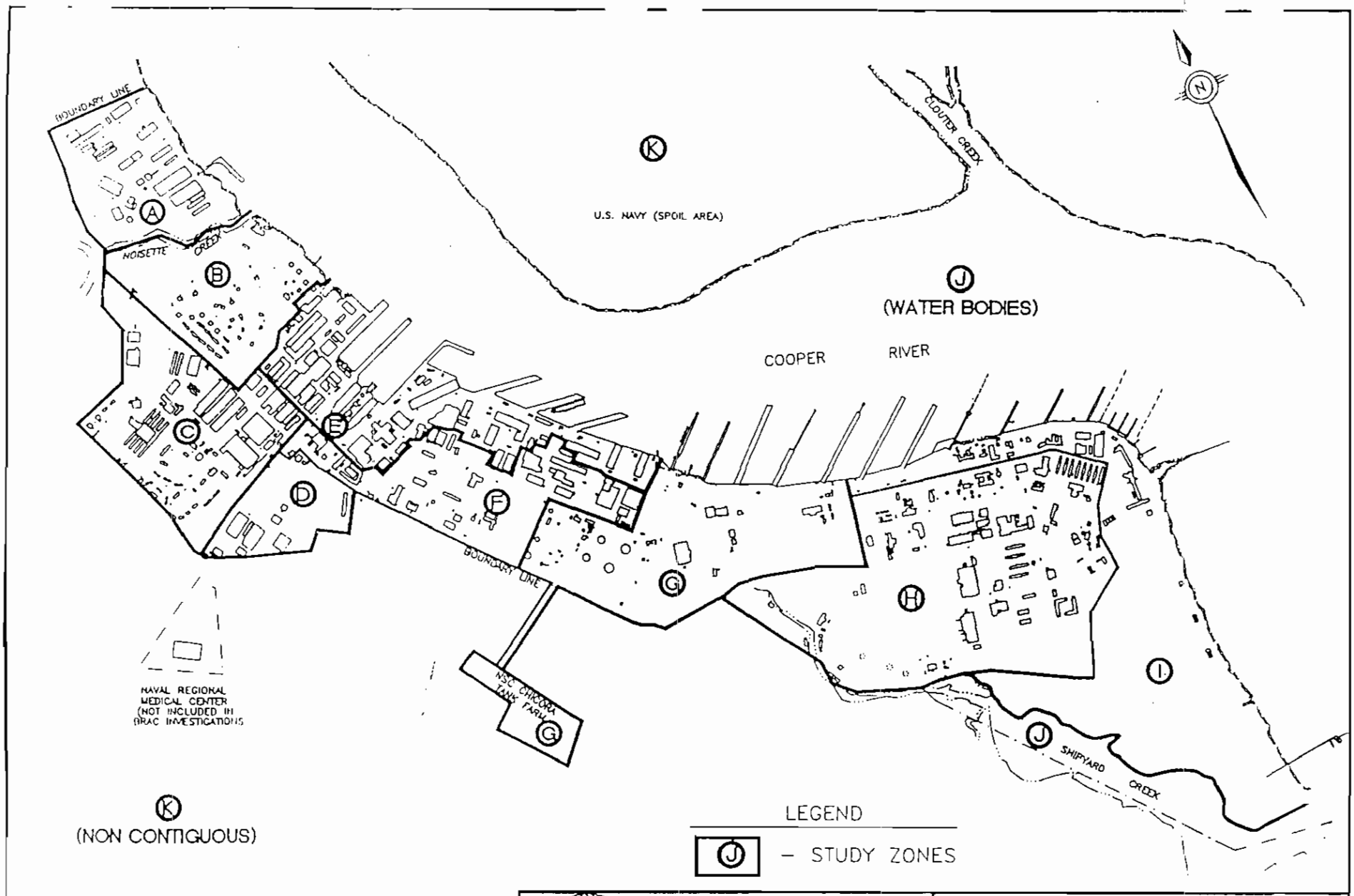
Attachment to Minutes:
(1) Letter from Ray Anderson to RAB members
(2) Environmental Cleanup Progress Report



Monthly RCRA Facility Investigation (RFI) Progress Report

March 1995

Presented by Tony Hunt (SouthDiv)



2000 0 2000

SCALE FEET

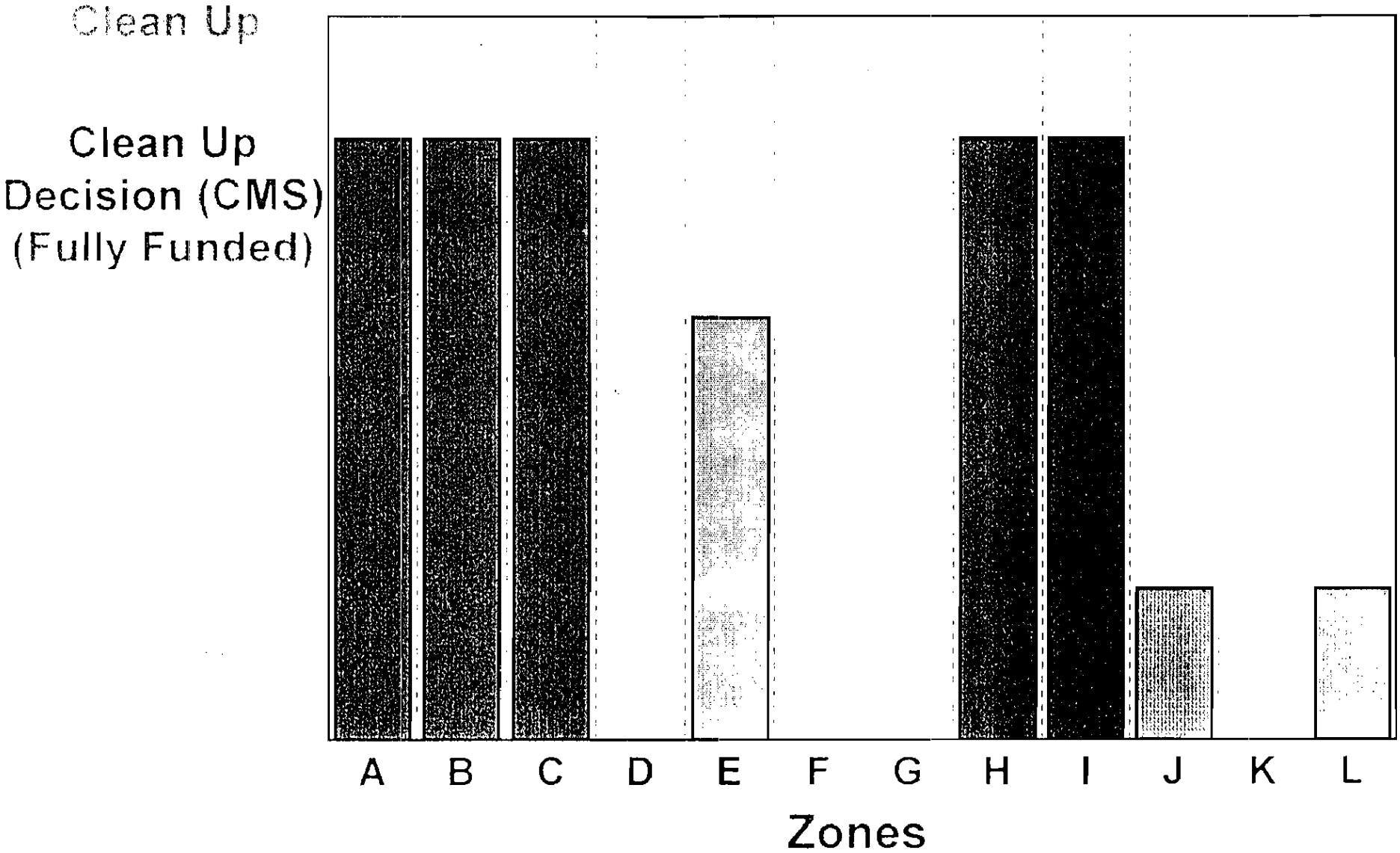
SOURCES: SOUTHDIV, n.d. ESE, 1981.

RAB
CLEANUP STATUS
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

INVESTIGATIVE
ZONE BOUNDARIES

DWG DATE: 01/09/95 | DWG NAME: 29ZONEA

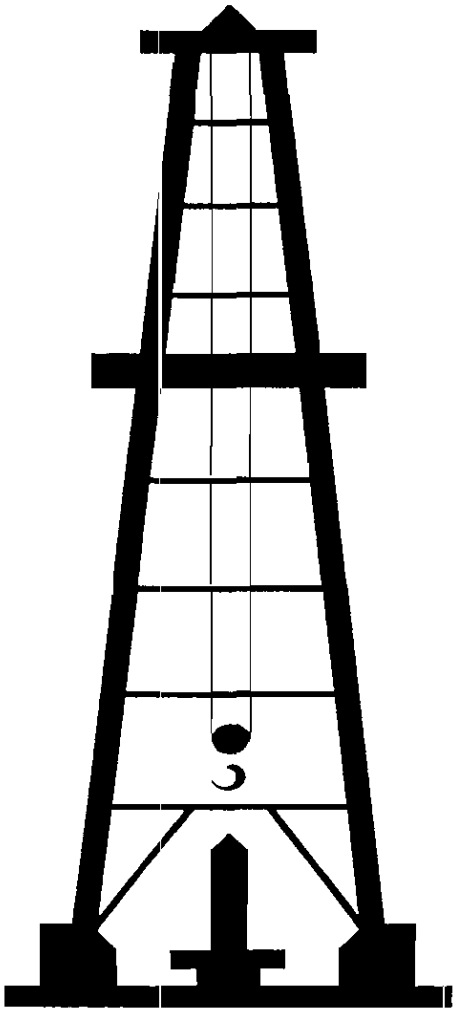
Funding Status

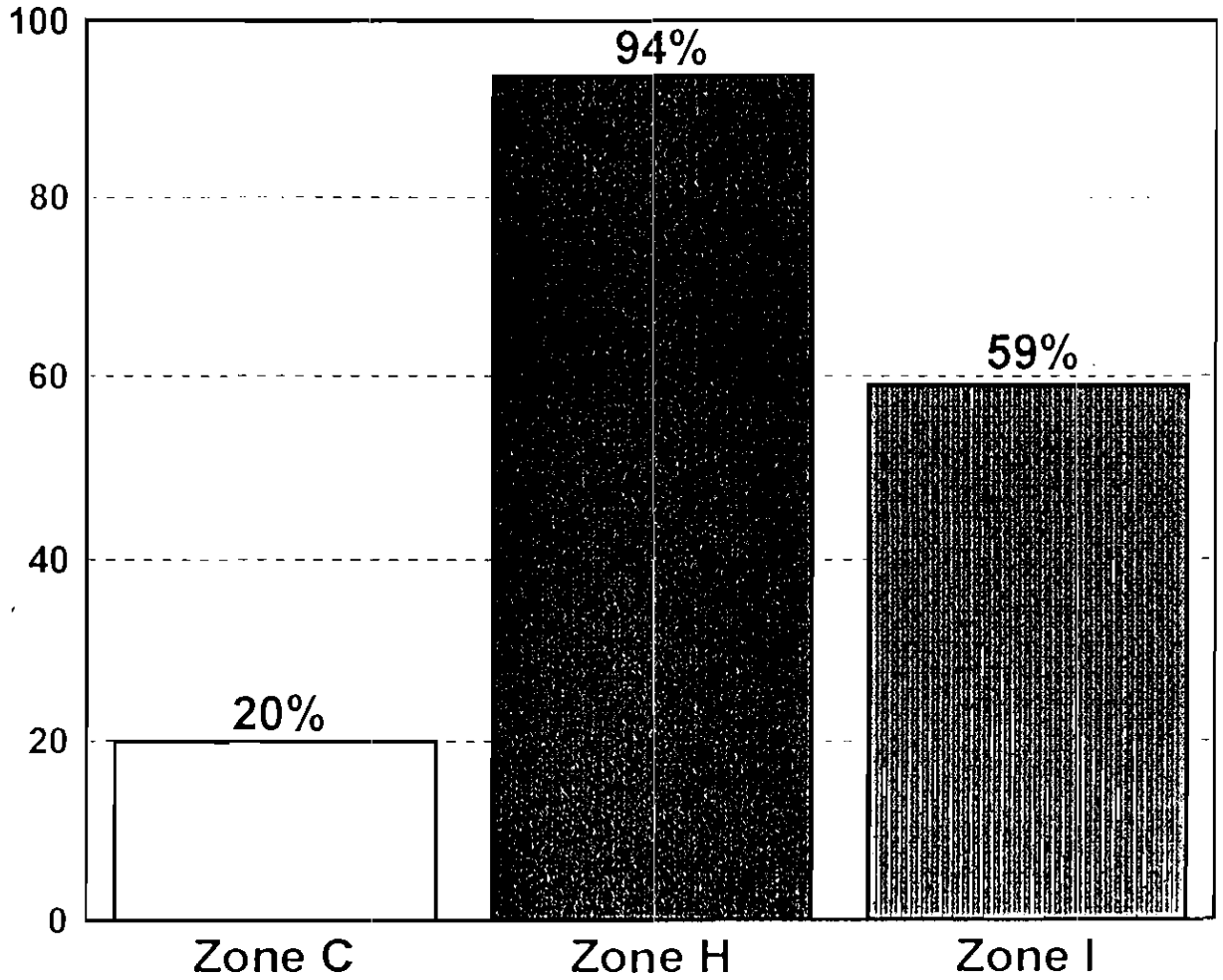


March Progress

- Final Resolution with Volumes I through III of the RFA is in Progress
- Volumes IV and V of RFA Submitted for Regulatory Approval
- Work Plans for Zones C and I Approved
- Zones C and I Field Work Continues
- Zone E Work Plan Regulatory Review Continues
- Additional Sampling Being Conducted in Zone H

Sampling Progress

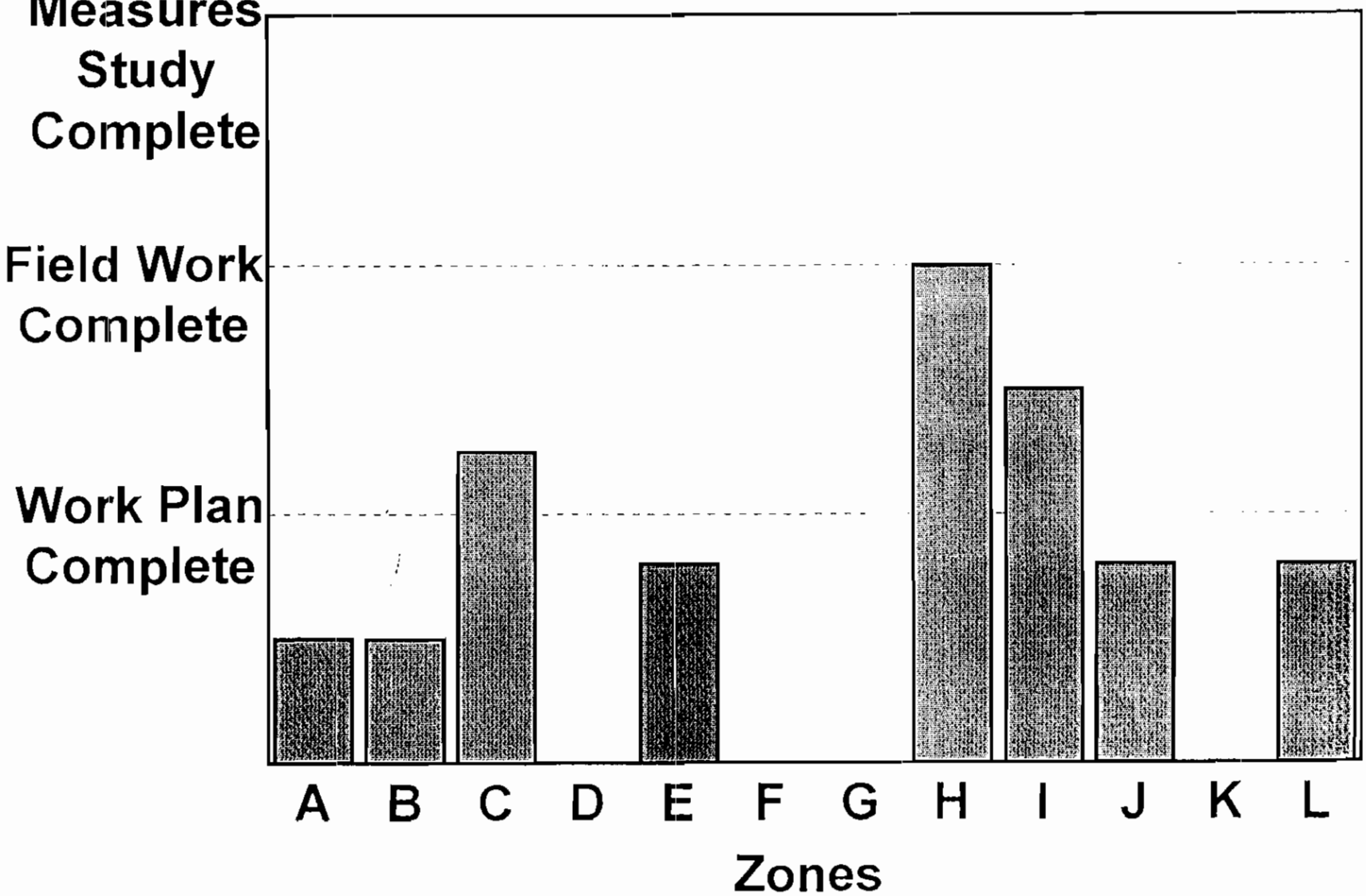




Projected Progress for April

- Zones C and I Field Work Continues
- Submit CAMP to EPA and SCDHEC for Approval
- Negotiate Contract for Preparation of Zones D, F, and G RFI Work Plans and Implementation of Zones J and L

RCRA Corrective Action Status



Local Subcontracts Awarded

General Engineering Laboratories for Air Quality Monitoring

Wright Padgett and Associates for Groundwater Well Sampling

Soil Consultants for Geophysical Analysis

Charleston Naval Complex Redevelopment Authority
122 King Street, Suite 201, Charleston, South Carolina 29401
Telephone: (803) 724-0670 Fax: (803) 724-0674

MEMORANDUM

TO: RAB Members

FROM: Ray Anderson
Charleston Naval Complex Redevelopment Authority
Appointee

DATE: April 10, 1995

Good evening to my fellow Restoration Advisory Board Members! Please accept my apologies for not being in attendance this evening, but my employment has me out of town attending a conference. I have asked Capt. Augustin to read this report for me.

If one thing is constant is the redevelopment process, it is change. As you will recall, I announced at the March RAB meeting Mr. Ron Coward's resignation. The Governor has accepted Mr. Coward's resignation. In addition, Mr. Rufus Barkley has also resigned. There are only six members of the Authority remaining. We are continuing to handle the routine duties of the Authority. Miss Madeleine McGee, Executive Director, has tended her resignation, effective in mid June, 1995.

The local members of the House and Senate have decided to amend the legislation creating the Authority. The adjustment in the law will create a new Redevelopment Authority and terminate the existing Authority. You may pay attention to the local media for the resolution to the issue. The existing group will probably continue to serve in order to move the important items along which have been started.

As all of you are aware, we established a "request for proposal" to lease the entire Naval Complex for shipbuilding or ship repair. The "RFP" was due in April 10, 1995, however five companies requested some additional time. A two week extension was granted and the proposals are due April 24, 1995.

We have some excellent companies interested in the facilities. These potential companies will create many jobs.

At our last meeting, Thursday of last week, we took steps to insure the future of the "RFP" process. The Authority formally requested that the Governor's office assume control of the process. As you may imagine, the

companies we are working with in the process are very uneasy about the events surrounding the Authority. These types of businesses want stability and our immediate future is uncertain. The State Department of Commerce has been assisting us all along and the potential companies will have familiar people to rely on in the future. The Authority is excited about April 24, 1995, the due date of the "RFP's". The process allows 90 days to evaluate the proposals. We anticipate some great news after the evaluation process.

Scope of work procedures are being established to request professional services to study utilities on the Base. These include water, sewer, electricity, gas, telephone, stormwater, steam, and the local area network. All of these must be analyzed for existing condition. All of these must be converted to private use and we need to know the condition and cost associated with the conversion.

The Authority approved the map of alternative plan 3-B for inclusion with the environmental impact statement. This will allow this process to continue and permit the record of decision to be issued in a short time.

Even though the "unkind" items are reported in the press, many good things are happening in the redevelopment process. Thanks for your input and assistance. I know you will have an informative meeting. I will be with you at the May 9, 1995, meeting.

Sincerely,

Raymond H. Anderson, Jr., AIA
Charleston Naval Complex Redevelopment Authority

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR APRIL 1995
RAB MEETING
9 MAY 95

INVESTIGATIVE ZONES

Zones: A. Warehousing and scrapmetal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Investigation only, no change from March)
  Fully funded: Zones A, B, C, H, I
  Funded through December of 1995: Zone E
  Funded for RFI Work Plans only: Zones J, L

PROGRESS FOR APRIL

- No additional sites were notified in April. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	204
Total	399
No Further Investigation at this time	165
Total to investigate	234

- The Final resolution on outstanding items with Volumes I through III of the RFA have been submitted to SCDHEC and EPA for review.

- Comments have been received on Volume IV RFA and are being addressed. Volume V is still in review by the regulatory agencies.

- Regulatory review continues on Zone E work plan.

- Zone C and I field work continues, the following table provides a status.

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Wipe
Zone H	800/800	288/292	13/13	4/4	0
Zone I	184/184	7/55	0/22	0/5	0/18
Zone C	204/218	8/31	13/13	7/14	0

PROJECTED ACTIVITY FOR MAY

- Negotiate and award contract for development of work plans and implementation for Zones D, F, and G and implementation only for Zone L.

- Obtain Zone E comments from regulatory agencies, resolve and submit response to comments.

- Submit Zone A and B (combined) work plans for regulatory review.

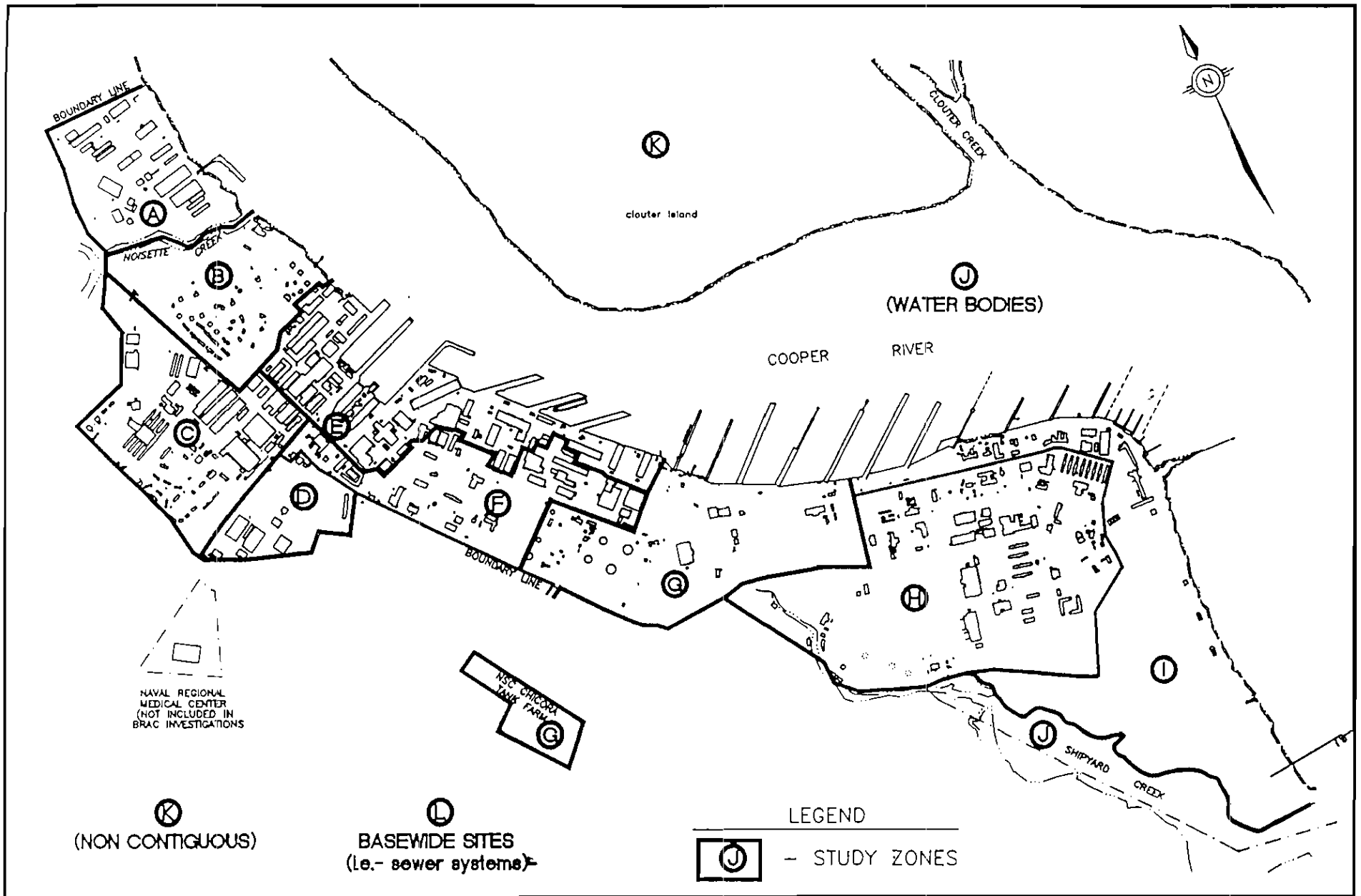
- Submit Zone J work plan for regulatory review.

- Continue Zone C and I field work.

- Obtain CAMP approval.

ITEMS OF INTEREST

- The Shipyard has been tasked with developing an engineering evaluation and cost analysis to support a voluntary interim measure at AOC 653, Building 1508 MWR Hobby Shop.



SOURCES: SOUTHDIV, n.d. ESE, 1981.

BRAC CLEANUP PLAN
NAVAL BASE
CHARLESTON

FIGURE 4-2
ZONE MAP

DWG DATE: 02/15/95 | DWG NAME: 760ZONE

Preliminary Results of Zone H Field Investigation Data

- Acronyms: PAHs are Polynuclear Aromatic Hydrocarbons which is a term used to describe a large class of compounds that are commonly used as fungicides, cutting fluids, lubricants and emulsion breakers. PAHs are also produced as a result of incomplete combustion in engines. PCBs are polychlorinated biphenyls widely used in transformer oil and other applications where heat resistance is required. TPHs are total petroleum hydrocarbons which is a term used to include a large class of compounds that are constituents in fuels such as diesel fuel and gasoline. VOCs are Volatile Organic Compounds which are low molecular weight compounds used as propellants.

- Dioxins are a special class of halogenated compounds that due to their unique structure are extremely resistant to degradation and persist in the environment.

- Compounds in italics and bold were detected in groundwater only. Compounds in italics, bold, and parentheses were detected in both soil and groundwater.

- Preliminary evaluation of background data indicates the ubiquitous (seemingly everywhere) presence of low levels of dioxins (part per trillion level), metals, pesticides, and some PAHs.

SWMU/AOC	Site Description	Contaminant source	Contaminants that are above expected background values	Media Affected	
				Soil	Ground Water
9	Closed Landfill	Landfill debris including asbestos, sludges, mercury, electroplating waste, PCBs, medical waste, batteries, paint, used oil, abrasive blast media	*(PAHs), (Pesticides), (Metals), (VOCs)*	✓	✓
19	Solid Waste Transfer Station		PAHs, PCBs, Metals, Furans	✓	
20	Waste Disposal Area		***VOCs***		✓
121	Building 801 SAA		PAHs, PCBs, Metals, Furans	✓	
13	Fire Fighting Training Area	Petroleum products, volatile liquids	Pesticides, TPH, Metals	✓	✓
14	Chemical Disposal	Chemicals used for warfare decontaminating agents	Metals, TPH, Dioxins	✓	
15	Incinerator	Ash	PAHs, Metals, Dioxins	✓	

SWMU/AOC	Site Description	Contaminant source	Contaminants that are above expected background values	Media Affected	
				Soil	Ground Water
9	Closed Landfill	Landfill debris including asbestos, sludges, mercury, electroplating waste, PCBs, medical waste, batteries, paint, used oil, abrasive blast media	*(PAHs), (Pesticides), (Metals), (VOCs)*	✓	✓
17	Oil Spill Area	No. 5 Fuel Oil, PCB containing dielectric fluid	*(PAHs)*, PCBs, Metals, *(VOCs)*, Dioxins	✓	✓
136,178, 663	Bldg NS-53 SAA, Former Transformer Area, Gas/Diesel Pumping Station	Petroleum products, solvents, paints, hazardous wastes (Volatile liquids, waste oil, etc.)	PAHs, PCBs, Pesticides, Metals, TPH	✓	
138,667	Bldg. 1776 SAA and CBU-412 Vehicle Area	Petroleum products, waste oil, antifreeze	PAHs, Metals, *VOCs*	✓	✓
653	Hobby Shop	Hydraulic oils, waste oil, solvents, paint	PAHs, PCBs, TPH	✓	
655	Oil Spill Area Behind Base Exchange	Petroleum products	PCBs, Pesticides, Metals, TPH	✓	
656	Petroleum Spill Between Blgs. 602 and NS-71	Petroleum products	PAHs, Metals, TPH	✓	
659	Diesel Storage	Petroleum products	Metals, TPH	✓	
665	Pyrotechnic Storage	Pyrotechnic and explosive constituents	PAHs, Pesticides	✓	
666	Fuel Storage Area	No. 2 fuel oil (petroleum products)	PAHs, PCBs, TPH, *VOCs*	✓	✓
670	Field South of Bldg. 1897 (Former Skeet Range)	Lead, Brass, Calcium Carbonate (from clay targets), Asphalt pitch	PAHs, Metals, Dioxins	✓	

pace
INCORPORATED
THE ASSURANCE OF QUALITY

5-5-95

Todd Hauerkost,

Soil VOA, ABN MDL studies
as you requested!

Stuart Bronson

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

An Equal Opportunity Employer

PACE INC. NE-NH LAB
METHOD DETECTION LIMIT STUDY
METHOD 8240 CHS LOW SOIL
ANALYST - Robin Price
FEBRUARY 1995
6 ft PACKED COLUMN: 60/80 CARBOPAK B/1% SP1000

COMPOUND (5 ppb, exceptions noted)	>C7605 CONC. ug/Kg	>C7606 CONC. ug/Kg	>C7607 CONC. ug/Kg	>C7608 CONC. ug/Kg	>C7609 CONC. ug/Kg	>C7610 CONC. ug/Kg	>C7611 CONC. ug/Kg	STD DEV	X 3.14 MDL ug/L	MEAN
CHLOROMETHANE	5.12	4.73	5.11	4.64	4.58	4.64	4.31	0.2920	0.92	4.73
BROMOMETHANE	5.42	5.02	5.05	4.70	4.91	4.71	4.76	0.2558	0.80	4.94
VINYL CHLORIDE	5.58	5.08	5.12	4.66	4.96	4.60	4.63	0.3540	1.11	4.95
CHLOROETHANE	5.35	4.94	4.86	4.76	5.14	4.84	4.11	0.3868	1.21	4.86
METHYLENE CHLORIDE	5.19	4.98	5.26	5.18	5.04	4.80	5.30	0.1769	0.56	5.11
ACETONE	6.09	7.25	5.61	6.87	6.83	6.04	8.15	0.8608	2.70	6.69
CARBON DISULFIDE	3.37	4.73	4.83	4.62	4.43	4.60	2.49	0.8817	2.77	4.15
TRICHLOROFLUOROMETHANE	4.95	4.03	4.80	4.95	5.03	4.78	3.50	0.5822	1.83	4.58
1,1-DICHLOROETHENE	5.05	4.80	4.24	4.36	4.56	4.26	4.18	0.3273	1.03	4.49
TETRAHYDROFURAN	7.29	4.49	0.80	4.43	5.21	5.03	4.99	1.9333	6.07	4.61
1,1-DICHLOROETHANE	5.35	4.96	5.02	4.63	4.76	4.42	4.57	0.3169	1.00	4.82
1,2-DICHLOROETHENE(total) (10 PPB)	11.03	10.08	9.79	9.19	9.73	9.12	9.10	0.6923	2.17	9.72
CHLOROFORM	5.44	4.93	5.04	4.66	4.83	4.55	4.61	0.3090	0.97	4.87
2-BUTANONE	6.84	5.60	4.77	6.94	7.51	6.37	6.49	0.9140	2.87	6.36
1,2-DICHLOROETHANE	5.87	5.36	5.14	4.95	5.24	4.86	5.31	0.3302	1.04	5.25
MTBE	5.28	4.54	4.29	4.61	4.47	4.38	4.44	0.3286	1.03	4.57
1,1,1-TRICHLOROETHANE	5.51	5.13	4.79	4.82	4.96	4.70	4.58	0.3121	0.98	4.93
CARBON TETRACHLORIDE	5.82	5.19	4.85	4.85	5.21	4.91	4.83	0.3588	1.13	5.09
VINYL ACETATE	4.66	4.06	3.45	4.80	4.92	4.55	4.20	0.5123	1.61	4.38
BROMODICHLOROMETHANE	5.45	4.87	4.61	4.70	4.93	4.70	4.77	0.2813	0.88	4.86
1,2-DICHLOROPROPANE	5.13	4.62	4.10	4.77	4.45	4.77	4.41	0.3285	1.03	4.61
CIS-1,3-DICHLOROPROPENE	5.25	4.34	4.24	4.48	4.51	4.35	4.42	0.3376	1.06	4.51
TRICHLOROETHENE	5.64	4.94	4.79	4.76	4.87	4.82	4.47	0.3590	1.13	4.90
DIBROMOCHLOROMETHANE	5.29	4.81	4.49	4.98	4.84	4.73	5.21	0.2778	0.87	4.91
1,1,2-TRICHLOROETHANE	5.60	4.96	4.36	5.06	5.18	5.21	5.25	0.3783	1.19	5.09
BENZENE	5.49	4.82	4.83	4.71	4.89	4.54	4.64	0.3088	0.97	4.85
TRANS-1,3-DICHLOROPROPENE	4.68	4.10	4.15	4.66	4.44	4.10	4.03	0.2794	0.88	4.31
2-CHLOROETHYLVINYLETHER	3.70	4.69	3.68	4.66	3.71	4.41	3.76	0.4762	1.50	4.09
BROMOFORM	5.23	4.81	4.14	5.25	5.03	4.81	4.91	0.3742	1.17	4.88
4-METHYL-2-PENTANONE	4.98	4.58	2.92	4.95	4.95	4.43	4.61	0.7251	2.28	4.49
2-HEXANONE	5.50	4.51	3.08	4.79	5.30	4.74	5.02	0.7929	2.49	4.71
TETRACHLOROETHENE	5.49	4.96	5.02	4.68	4.81	4.57	4.48	0.3406	1.07	4.86
1,1,2,2-TETRACHLOROETHANE	5.40	4.54	3.56	5.19	4.99	4.73	4.69	0.5965	1.87	4.73
TOLUENE	5.39	4.95	5.02	5.03	4.79	4.74	4.92	0.2123	0.67	4.98
CHLOROBENZENE	5.79	5.16	5.19	5.00	5.06	4.99	5.09	0.2780	0.87	5.18
ETHYLBENZENE	5.58	5.15	4.99	4.74	4.92	4.70	4.89	0.2986	0.94	5.00
STYRENE	5.66	5.03	5.09	4.87	4.93	4.84	4.98	0.2797	0.88	5.06
XYLENE	5.73	5.12	5.11	5.02	5.01	4.93	4.86	0.2879	0.90	5.11
XYLENE (total) (10 PPB)	11.31	10.31	10.26	10.04	10.00	9.88	9.92	0.4966	1.56	10.25

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
METHOD DETECTION LIMIT VERIFICATION STUDY
SEMIVOLATILE ORGANIC COMPOUNDS
METHOD 8270, FMS
J&W DB-5 (20m, 0.18mm ID, 0.4 um film)
ANALYST: Liane Hall Date: February 1995

COMPOUND (20 PPB)	>F9952 (ug/L)	>F9953 (ug/L)	>F9962 (ug/L)	>F9956 (ug/L)	>F9957 (ug/L)	>F9958 (ug/L)	>F1326 (ug/L)	STD DEV =======	X 3.14 MDL UG/L =====	MEAN =====
N-NITROSODIMETHYLAMINE	13.43	14.12	16.16	16.08	16.53	14.86	15.58	1.1551	3.63	15.25
PHENOL	13.75	16.52	17.62	15.18	14.62	17.35	17.02	1.4942	4.69	16.01
ANILINE	13.23	16.02	18.23	16.06	16.71	16.51	16.00	1.4906	4.68	16.11
BIS(2-CHLOROETHYL)ETHER	15.39	16.69	17.85	18.53	17.58	17.45	18.48	1.0970	3.44	17.42
2-CHLOROPHENOL	14.31	15.18	15.58	14.95	14.72	15.00	15.37	0.4205	1.32	15.02
1,3-DICHLOROBENZENE	11.33	13.52	15.04	14.04	14.66	15.15	17.12	1.7685	5.55	14.41
1,4-DICHLOROBENZENE	12.40	14.33	15.34	14.83	15.21	15.94	17.58	1.5748	4.95	15.09
BENZYL ALCOHOL	16.39	17.18	17.70	16.72	17.05	17.42	18.59	0.7164	2.25	17.29
1,2-DICHLOROBENZENE	13.27	15.45	16.60	15.74	16.07	16.56	17.37	1.3072	4.10	15.87
2-METHYLPHENOL	14.76	15.93	16.31	15.37	16.04	16.14	17.39	0.8153	2.56	15.99
BIS(2-CHLOROISOPROPYL)ETH	15.34	17.73	21.77	19.93	22.22	21.91	22.02	2.6032	8.17	20.16
4-METHYLPHENOL	15.23	16.22	17.20	15.75	16.56	16.70	17.94	0.9000	2.83	16.51
N-NITROSO-DI-N-PROPYLAMIN	15.47	16.75	18.00	17.15	18.17	17.76	19.75	1.3286	4.17	17.58
HEXACHLOROETHANE	10.87	13.09	14.47	13.61	13.61	14.64	16.81	1.7954	5.64	13.87
NITROBENZENE	15.22	16.86	17.41	16.73	16.79	17.11	18.71	1.0332	3.24	16.98
ISOPHORONE	16.43	17.77	18.36	16.98	17.92	17.90	18.46	0.7345	2.31	17.69
[illegible]OPHENOL	15.52	15.96	15.91	15.33	14.62	14.92	17.58	0.9652	3.03	15.69
2,4-DIMETHYLPHENOL	13.51	15.41	14.34	13.25	14.51	14.07	14.87	0.7505	2.36	14.28
BENZOIC ACID	9.49	10.22	5.85	6.98	4.83	4.27	8.75	2.3395	7.35	7.20
BIS(2-CHLOROETHOXY)METHAN	16.59	17.75	18.77	18.07	18.43	18.42	18.94	0.7915	2.49	18.14
2,4-DICHLOROPHENOL	16.21	17.86	17.15	16.65	16.34	16.62	18.24	0.7773	2.44	17.01
1,2,4-TRICHLOROBENZENE	15.38	17.16	16.25	16.59	15.55	15.71	17.48	0.8140	2.56	16.30
NAPHTHALENE	16.37	17.59	17.96	17.26	17.37	17.23	18.30	0.6136	1.93	17.44
4-CHLOROANILINE	15.16	17.13	17.19	15.95	16.91	16.08	17.40	0.8277	2.60	16.55
HEXACHLOROBUTADIENE	13.75	15.39	14.54	14.08	13.67	13.98	16.14	0.9293	2.92	14.51
4-CHLORO-3-METHYLPHENOL	16.74	18.24	18.26	16.65	17.32	17.05	19.60	1.0650	3.34	17.69
2-METHYLNAPHTHALENE	18.46	19.57	19.69	18.77	18.17	18.43	20.24	0.7833	2.46	19.05
HEXACHLOROCYCLOPENTADIENE	5.96	6.94	5.90	5.57	5.74	9.28	8.70	1.5219	4.78	6.87
2,4,6-TRICHLOROPHENOL	17.51	18.09	17.35	16.61	15.77	15.80	19.01	1.1923	3.74	17.16
2,4,5-TRICHLOROPHENOL	18.56	18.91	17.90	17.45	16.61	17.43	18.60	0.8195	2.57	17.92
2-CHLORONAPHTHALENE	17.97	18.09	18.99	17.79	17.43	17.52	19.65	0.8180	2.57	18.21
2-NITROANILINE	16.42	17.09	19.00	17.73	18.01	18.65	19.47	1.0771	3.38	18.05
DIMETHYLPHTHALATE	19.29	19.17	19.33	18.64	17.93	18.71	20.23	0.7165	2.25	19.04
ACENAPHTHYLENE	18.47	18.96	19.66	19.02	17.91	18.77	20.62	0.8718	2.74	19.06
3-NITROANILINE	16.83	17.70	18.05	17.05	16.54	17.04	19.15	0.8988	2.82	17.48
ACENAPHTHENE	19.14	19.72	19.75	19.06	18.65	19.48	19.87	0.4464	1.40	19.38
2,4-DINITROPHENOL	12.86	11.00	9.26	9.32	8.10	7.57	13.32	2.2522	7.07	10.20
4-NITROPHENOL	14.30	14.79	14.61	14.52	12.93	13.57	15.61	0.8663	2.72	14.33
DIBENZOFURAN	18.69	19.07	19.36	18.92	17.56	18.27	20.64	0.9573	3.01	18.93
2,6-DINITROTOLUENE	16.05	16.38	15.68	15.15	14.73	15.25	17.82	1.0274	3.23	15.87
2,4-DINITROTOLUENE	16.84	16.63	17.01	16.02	15.14	16.03	18.94	1.1882	3.73	16.66
D[illegible]LPHTHALATE	18.19	17.99	18.51	17.71	17.32	17.53	19.47	0.7246	2.28	18.10
4-[illegible]OROPHENYL-PHENYLETHE	19.19	20.24	19.15	18.54	17.33	17.80	20.86	1.2579	3.95	19.02
FLUORENE	19.64	19.62	19.89	19.39	18.24	18.88	20.23	0.6646	2.09	19.41

pace INCORPORATED THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
METHOD DETECTION LIMIT VERIFICATION STUDY
SEMIVOLATILE ORGANIC COMPOUNDS
METHOD 8270, FMS
J&W DB-5 (20m, 0.18mm ID, 0.4 um film)
ANALYST: Liane Hall Date: February 1995

COMPOUND (20 PPB)	>F9952 (ug/L)	>F9953 (ug/L)	>F9962 (ug/L)	>F9956 (ug/L)	>F9957 (ug/L)	>F9958 (ug/L)	>F1326 (ug/L)	DEV	UG/L	MEAN
4-NITROANILINE	16.72	17.26	17.65	15.96	16.28	16.85	18.94	0.9910	3.11	17.09
4,6-DINITRO-2-METHYLPHENO	12.92	11.67	11.12	10.88	10.81	9.84	15.82	1.9804	6.22	11.87
N-NITROSODIPHENYLAMINE	17.18	17.08	18.3	17.01	18.4	17.89	19.73	0.9772	3.07	17.94
AZOBENZENE	18.73	19.07	20.86	20.15	22.12	20.88	21.57	1.2478	3.92	20.48
4-BROMOPHENTL-PHENYLETHER	19.68	20.01	19.22	18.21	18.77	18.92	21.19	0.9768	3.07	19.43
HEXACHLOROBENZENE	15.97	17.08	16.29	15.49	15.91	15.71	17.91	0.8618	2.71	16.34
PENTACHLOROPHENOL	15.19	14.66	14.27	12.89	14.31	13.11	17.09	1.4037	4.41	14.50
PHENANTHRENE	18.53	19.68	19.77	18.39	19.85	19.77	20.94	0.8680	2.73	19.56
ANTHRACENE	18.91	19.18	19.49	18.67	19.96	19.2	21.58	0.9775	3.07	19.57
DI-N-BUTYLPHTHALATE	18.8	19.22	19.68	18.45	20.01	19.31	20.51	0.7049	2.21	19.43
FLUORANTHENE	18.25	18.47	18.83	17.22	18.53	18.09	21.17	1.2212	3.83	18.65
BENZIDINE	13.82	13.38	18.01	13.72	16.51	8.52	10.23	3.2925	10.34	13.46
PYRENE	18.17	18.17	19.07	18.23	18.4	18.57	20.62	0.8848	2.78	18.75
BUTYLBENZYLPHTHALATE	17.81	17.15	18.67	17.79	18.24	17.64	20.62	1.1385	3.57	18.27
3,3'-DICHLOROBENZIDINE	14.5	12.59	15.9	15.12	14.19	14.81	18.7	1.8784	5.90	15.12
BENZO(A)ANTHRACENE	18.08	17.67	17.8	17.18	17.64	17.4	20.79	1.2286	3.86	18.08
BIS(2-ETHYLHEXYL)PHTHALAT	19.95	19.6	22.03	21.11	20.42	21.17	24.83	1.7575	5.52	21.30
CHRYSENE	17.27	17.86	18.09	17.88	17.62	16.43	19.69	0.9873	3.10	17.83
DI-N-OCTYLPHTHALATE	16.53	17.51	16.99	16.64	17.12	16.96	19.71	1.0883	3.42	17.35
BENZO(B)FLUORANTHENE	15.85	16	15.14	16.06	14.56	14.1	18.21	1.3364	4.20	15.70
BENZO(K)FLUORANTHENE	19.82	18.45	22.22	18.25	21.49	22.79	20.31	1.7768	5.58	20.48
BENZO(A)PYRENE	16.15	16.8	17.17	15.69	16.22	16.33	18.48	0.9209	2.89	16.69
INDENO(1,2,3-CD)PYRENE	16.3	16.42	16.21	16.16	15.81	15.44	17.78	0.7317	2.30	16.30
DIBENZ(A,H)ANTHRACENE	16.41	16.76	16.6	16.52	16.16	15.83	18.21	0.7566	2.38	16.64
BENZO(G,H,I)PERYLENE	15.83	16.75	15.94	15.8	15.68	15.34	17.65	0.7911	2.48	16.14

pace INCORPORATED
THE ASSURANCE OF QUALITY

VALIDATA

Chemical Services, Inc.

P. O. Box 930422 Norcross, Ga. 30093

DATA VALIDATION SUMMARY REPORT

COMPANY:	EnSafe/Allen & Hoshall
SITE NAME:	Charleston Naval Base
PROJECT NUMBER:	8500.14
CONTRACTED LAB:	PACE, Incorporated
QA/QC LEVEL:	CLP Level III
EPA SOW/METHOD:	EPA 1990 SOW / SW846: 8270, 8080
VALIDATION GUIDELINES:	USEPA *Contract Laboratory Program National Functional Guidelines for Organic Data Review, 1994*
SAMPLE MATRIX:	Soil
TYPES OF ANALYSES:	Semivolatile Organics (SVOA), Pesticides/PCB's (P/PCB)
SDG NUMBER:	CHS40

SAMPLES:

Client Sample #:	Lab Sample #:	Matrix	SVOA	P/PCB
653SB00601	43471-003	Soil	X	X
653SB00602	43471-004	Soil	X	X
653SB00701	43451-003	Soil	X	X
653SB00702	43451-004	Soil	X	X
653SB00801	43471-001	Soil	X	X
653SB00802	43471-002	Soil	X	X
663SB00901	43451-001	Soil	X	
663SB00902	43451-002	Soil	X	
670SB03401	43421-001	Soil	X	
670SB03402	43421-002	Soil	X	
684SB04001	43421-005	Soil	X	
684SB04002	43421-006	Soil	X	
684SB04101	43421-007	Soil	X	
684SB04102	43421-008	Soil	X	
684SB04201	43421-009	Soil	X	
684SB04202	43421-010	Soil	X	
684SB04301	43421-003	Soil	X	
684SB04302	43421-004	Soil	X	
684SB04401	43421-011	Soil	X	
684SB04402	43421-012	Soil	X	
653SB00701MS	43471-003MS	Soil	X	X

Client Sample #:	Lab Sample #:	Matrix	SVOA	P/PCB
653SB00701MSD	43471-003MSD	Soil	X	X
663SB00901MS	43451-001MS	Soil	X	
663SB00901MSD	43451-001MSD	Soil	X	
684SB04401MS	43421-011MS	Soil	X	
684SB04401MSD	43421-011MSD	Soil	X	

MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE

DATA REVIEWER(S): Marvin L. Smith, Kevin C. Harmon

RELEASE SIGNATURE: Kevin C. Harmon

Data Qualifier Definitions:

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

PACE, Incorporated - CHS40, SW846 Organics

SAMPLES: 653SB00601, 653SB00602, 652SB00701, 65300702, 653SB00801, 653SB00802, 663SB00901, 663SB00902, 670SB03401, 670SB3402, 684SB04001, 684SB04002, 684SB04101, 684SB04102, 684SB04201, 684SB04202, 684SB04301, 684SB04302, 684SB04401, 684SB04402, 653SB00701MS, 653SB00701MSD 663SB00901MS, 663SB00901MSD, 684SB04401MS, 684SB04401MSD

SEMIVOLATILE ORGANICS

I.) Holding Times:

All Holding Time criteria for the method were met, so no action was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria for the method were met, so no action was taken.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviation (%RSD) was 31.4% for benzo(k)fluoranthene for the standards run on 2/17/95 on instrument FMS-HP, which exceeded the 30% QC limit. The positive results for this compound in the associated samples were flagged as estimated (J).

The Percent Relative Standard Deviation (%RSD) was 40.7% for benzo(k)fluoranthene for the standards run on 2/17/95 on instrument HMS-HP, which exceeded the 30% QC limit. The positive results for this compound in the associated samples were flagged as estimated (J).

Continuing Calibration:

The Percent Differences (%D's) exceeded the 25% QC limit for the standard run on 4/5/95 at 08:57 on instrument FMS-HP for the following compounds:

benzoic acid	39.9 %
benzidine	60.7 %
bis(2-ethylhexyl)phthalate	34.4 %

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Differences (%D's) exceeded the 25% QC limit for the standard run on 4/6/95 at 10:04 on instrument FMS-HP for the following compounds:

benzidine	53.6 %
benzoic acid	43.2 %
bis(2-ethylhexyl)phthalate	35.0 %

All results for these compounds in the associated samples, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Difference (%D) was 36.1% for benzo(k)fluoranthene, which exceeded the 25% QC limit for the standard run on 4/5/95 at 10:32 on instrument HMS-HP. All positive and non-detect results for this compound in the associated samples were flagged as estimated (J) and (UJ).

The Percent Differences (%D's) exceeded the 25% QC limit for the standard run on 4/6/95 at 11:12 on instrument HMS-HP for the following compounds:

benzidine	28.6 %
benzo(k)fluoranthene	38.9 %

All positive and non-detect results for these compounds in the associated samples were flagged as estimated (J) and (UJ).

IV.) Blanks:

Method Blanks:

Bis(2-ethylhexyl)phthalate was detected at 270 ug/kg in soil method blank B-A2293 analyzed on 4/6/95. Detections of this compound in associated samples below 10X this amount were flagged as undetected (U) with the detection limit being raised to the level of contamination in each sample.

Equipment Blanks:

There were no equipment blanks associated with this SDG. No action was required.

TIC's:

There were no positive detections of TIC's in the method blanks, so no action was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria for the method were met, so no action was taken.

VI.) Laboratory Control Samples (LCS):

All LCS Recovery criteria for the method were met, so no action was necessary.

VII.) Matrix Spike/Matrix Spike Duplicate (MS / MSD):

The Relative Percent Differences (RPD's) for pyrene (144%) and acenaphthene (52%) exceeded their respective 31% QC limits for spiked samples 684SB04401MS and 684SB04401MSD. The results for these compounds in associated sample 684SB04401, which consisted entirely of non-detects, were flagged as estimated (UJ).

The Percent Recoveries (%R's) of the following compounds were outside their respective QC limits in spiked samples 684SB04401MS and 684SB04401MSD:

Compound	MS, %R	MSD, %R	QC Limits
pyrene	415		26-127%
2,4-dinitrotoluene	22	19	24-96%
acenaphthene		38	46-118%

The non-detect results for 2,4-dinitrotoluene and acenaphthene in associated sample 686SB04401, were flagged as estimated (UJ). The positive result for pyrene in this sample was flagged as estimated (J).

VIII.) Field Duplicates:

There were no field duplicates associated with this SDG, so no action was necessary.

IX.) Internal Standards Performance:

The Percent Recoveries (%R's) for the internal standard area counts were below the 50-200% QC limits for the following samples and Internal Standards:

Sample	Internal Standard	%R
653SB00601	chrysene-d12	48
	perylene-d12	15
653SB00701	perylene-d12	46
653SB00801	perylene-d12	18
684SB04302	perylene-d12	36

All positive and non-detect results associated with each of these internal standards with %R's between 25% and 49% were flagged as estimated (J) and (UJ) in the associated samples. In addition, the positive results for compounds associated with perylene-d12 in samples 653SB00601 and 653SB00801 were flagged as estimated (J) and all non-detects were rejected (R) due to %R's less than 25%.

X.) TCL Compound Identification:

All TCL Compound Identification criteria for the method were met, so no action was taken.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL's):

All CRQL criteria for the method were met, so no action was taken.

XII.) Tentatively Identified Compounds (TIC's):

All TIC criteria for the method were met, so no action was taken.

XIII.) System Performance:

All System Performance criteria for the method were met, so no action was taken.

XIV.) Overall Assessment of Data/General:

All non-detect results for compounds associated with internal standard perylene-d12 in samples 653SB00601 and 65300801were rejected due to excessively low Internal Standard Recoveries. The remaining laboratory data were acceptable with qualification.

PESTICIDES/PCB's

I.) Holding Times:

All samples were extracted and analyzed within the required holding times, so no action was taken.

II.) Instrument Performance:

All Pesticide Instrument Performance criteria for the method were met, so no action was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria for the method were met, so no action was required.

Continuing Calibration:

The Percent Difference (%D) was 28.4% for 4,4'-DDT (primary column), which exceeded the 25% QC limit for the standard run on 4/6/95 at 03:47. The non-detect result for this compound in associated sample 653SB00602 was flagged as estimated (UJ).

The Percent Difference (%D) was 55.6% for 4,4'-DDT (secondary column), which exceeded the 25% QC limit for the standard run on 4/10/95 at 09:21. The non-detect results for this compound in associated samples 653SB00601, 653SB00702 and 653SB00802 were flagged as estimated (UJ).

IV.) Blanks:

Method Blanks:

There were no positive detections in the method blanks. Data qualification was not required.

Equipment Blanks:

There were no equipment blanks associated with this SDG. No action was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria for the method were met, so no action was taken.

VI.) Laboratory Control Samples (LCS):

All LCS Recovery criteria for the method were met, so no action was required.

VII.) Matrix Spike/Matrix Spike Duplicate (MS / MSD):

All MS / MSD Recovery criteria for the method were met, so no action was necessary.

VIII.) TCL Compound Identification:

Pesticide/PCB Identification Summary (PIS):

PIS data were not provided with this SDG. No action was required for Level III validation.

IX.) Field Duplicates:

There were no field duplicates associated with this SDG. Data qualification was not required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Florisil data was not available for this SDG. No action was taken.

Gel Permeation Chromatography (GPC):

GPC data was not present for this SDG. No action was taken.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL's):

All CRQL criteria for the method were met, so no action was required..

XII.) Overall Assessment of Data/General:

All laboratory data were acceptable with qualification.

VALIDATA

Chemical Services, Inc.

P. O. Box 930422 Norcross, Ga. 30093

DATA VALIDATION SUMMARY REPORT

COMPANY:	EnSafe / Allen & Hoshall
SITE NAME:	Charleston Naval Base
PROJECT NUMBER:	8500.014
CONTRACTED LAB:	PACE, Inc.
QA/QC LEVEL:	CLP Level III
EPA SOW/METHOD:	EPA 1990 SOW
VALIDATION GUIDELINES:	*USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, 1994; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, 1994
SAMPLE MATRIX:	Water
TYPES OF ANALYSES:	Volatile Organics (VOA), Semivolatile Organics (SVOC), Pesticides/PCB's (P/PCB), Total Metals and Cyanide (Me/CN)
SDG NUMBER:	CHS45

SAMPLES:

Client Sample #:	Lab Sample #:	Matrix	VOA	SVOC	P/PCB	Me/CN
009GW01701	43734-001	Water	X			
	43734-003	Water		X		
	43734-005	Water			X	
	43734-007/9	Water				X
009TW01701	43734-002	Water	X			
009GW01601	43734-011	Water	X			
	43734-004	Water		X		
	43734-006	Water			X	
	43734-008/10	Water				X
009GW01601MS	43734-011MS	Water	X			
009GW01601MSD	43734-011MSD	Water	X			
009GW00501	43740-025	Water	X			
	43740-003	Water		X		
	43740-007	Water			X	
	43740-0019/21	Water				X
009GW00601	43740-027	Water	X			
	43740-004	Water		X		
	43740-008	Water			X	
	43740-0020/22	Water				X

Client Sample #:	Lab Sample #:	Matrix	VOA	SVOC	P/PCB	Me/CN
009GW00601D	43740-020D	Water				X
009GW00601S	43740-020S	Water				X
009HW01601	43845-001	Water		X	X	
009HW01601MS	43845-001MS	Water		X	X	
009HW01601MSD	43845-001MSD	Water		X	X	
009TW00601	43740-026	Water	X			
009GW01801	43753-003	Water	X			
	43753-008	Water		X		
	43753-012	Water			X	
	43753-016/26	Water				X
009GW01901	43753-004	Water	X			
	43753-009	Water		X		
	43753-013	Water			X	
	43753-017/27	Water				X
009TW01901	43753-005	Water	X			

S / MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, D = MATRIX DUPLICATE, TW = TRIP BLANK

DATA REVIEWER(S): Jean M. Delashmit, Marvin L. Smith

RELEASE SIGNATURE: Kevin C. Harmon

Data Qualifier Definitions:

J	-	The associated numerical value is an estimated quantity.
R	-	The data are unusable (the compound/analyte may or may not be present). Resampling and reanalysis are necessary for verification.
U	-	The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.
UJ	-	The compound/analyte was analyzed for, but not detected. The sample quantitation limit is an estimated quantity.

DATA QUALIFICATION SUMMARY

PACE, Incorporated - CHS45 CLP Organics and Inorganics

SAMPLES: 009GW01701, 009TW01701, 009GW01601, 009GW00501, 009GW00601, 009GW01601MS, 009GW01601MSD, 009HW01601, 009HW01601MS, 009HW01601MSD, 009TW00601, 009GW01801, 009GW01901, 009TW01901

VOLATILE ORGANICS

I.) Holding Times:

The holding time from sample date to extraction was 9 days for samples 017SW00501 and 017SW00601, which exceeded the 7-day QC limit for unpreserved aromatic volatile compounds in water. The positive and non-detect results for these compounds in these samples were flagged as estimated (J) and (UJ).

All other Holding Time criteria were met, so no further action was taken.

II.) GC/MS Tuning:

All Tuning criteria were met, so no action was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were within QC limits, so no action was required.

Continuing Calibration:

The Percent Differences (%D's) for the following compounds exceeded the 25% QC limit for the standard run on 05/01/95:

Compound	%D
chloromethane	31.1
bromomethane	49.3

Associated sample results for these compounds, which consisted entirely of non-detects, were flagged as estimated (UJ). The associated samples were 009GW01601, 009GW01701, 009GW01801 and 009GW01901.

IV.) Blanks:

Method Blanks:

Methylene chloride was detected in method blank BI042795A at 1 ug/L. Associated detections of this compound were qualified based on the higher level of contamination in the trip blank. The associated samples were 009GW00501 and 009GW001601.

Rinsate Blanks:

No rinsate blank was analyzed with the samples in this SDG.

Trip Blanks:

Methylene chloride was detected in trip blank 017TW00601 at 8 ug/L. The detection of methylene chloride in the associated sample 017GW00601 below 10X this amount was flagged as undetected (U), and the detection level became the detection limit.

Chloroethane was detected in trip blank 009TW01901 at 10 ug/L. There were no detections of this compound in the associated samples, so no action was required.

TIC's:

Tentatively identified volatile compound chlorofluoromethane was detected in the trip blank 009TW01701 at 6 ug/L. There were no detections of this compound in the associated samples, so no action was required.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No action was needed.

VI.) Matrix Spike/Matrix Spike Duplicate (MS/MSD):

All Matrix Spike/Matrix Spike Duplicate criteria were met, so no action was required.

VII.) Field Duplicates:

There were no field duplicates associated with this SDG.

VIII.) Internal Standards Performance:

All Internal Standards Performance criteria were met, so no action was required.

IX.) TCL Compound Identification:

All criteria were met, so no action was necessary.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL's):

All criteria were met, so no action was required.

XI.) Tentatively Identified Compounds (TIC's):

All TIC criteria were met, so no action was taken. No blank qualifications were needed.

XII.) System Performance:

All criteria were met, so no action was necessary.

XIII.) Overall Assessment of Data/General:

All laboratory data were acceptable with qualification.

SEMIVOLATILE ORGANICS

I.) Holding Times:

All Holding Time criteria were met, so no action was taken.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met, so no action was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No action was required.

Continuing Calibration:

The Percent Difference (%D) for benzidine exceeded the 25% QC limit for the standard run on 04/25/95 at 10:01 on instrument FMS-HP. Sample data, which consisted entirely of non-detects, were flagged as estimated (UJ) in the associated samples 009GW00501 and 009GW01061.

The Percent Differences (%D's) exceeded the 25% QC limit for the standard run on 05/02/95 at 12:33 on instrument FMS-HP for the following compounds:

benzoic acid	50.0 %
pentachlorophenol	29.9 %

Positive and non-detect data for these compounds were flagged as estimated (J) and (UJ) in the associated samples 009GW01601, 009GW01701, 009GW01801 and 009GW01901.

The Percent Differences (%D's) exceeded the 25% QC limit for the standard run on 05/05/95 at 09:56 on instrument FMS-HP for the following compounds:

benzoic acid	56.2 %
hexachlorocyclopentadiene	30.8 %
pentachlorophenol	26.0 %

Positive and non-detect data for these compounds were flagged as estimated (J) and (UJ) in associated sample 009HW01601.

IV.) Blanks:

Method Blanks:

No target compounds were detected in any of the method blanks, so no action was required.

TICs:

No Tentatively Identified Compounds were reported as detected in the method blanks.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met, so no action was required.

VI.) Matrix Spike / Matrix Spike Duplicate:

All Matrix Spike / Matrix Spike Duplicate criteria were met. No action was required.

VII.) Field Duplicates:

There were no field duplicates associated with this SDG.

VIII.) Internal Standards Performance:

All Internal Standard criteria were met, so no action was required.

IX.) TCL Compound Identification:

All criteria were met, so no action was required.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL's):

All criteria were met, so no action was required.

XI.) Tentatively Identified Compounds (TIC's):

All TIC criteria were met, so no action was taken. No blank qualifications were required.

XII.) System Performance:

All criteria were met, so no action was necessary.

XIII.) Overall Assessment of Data/General:

All laboratory data were acceptable with qualification.

PESTICIDES/PCB's

I.) Holding Times:

All Holding Time criteria were met, so no action was taken.

II.) Instrument Performance:

All criteria were met. No data qualification was performed.

III.) Calibration:

All Calibration criteria were met, so no action was required.

IV.) Blanks:

Method Blanks:

There were no positive detections in the method blanks, so no action was taken.

Equipment Blanks:

There were no equipment blanks associated with this SDG.

V.) Surrogate Recoveries:

Percent Recoveries of decachlorobiphenyl were below the 30-150% QC limits for samples 009GW01601 (20%), 009GW01701 (16%), 009GW01801 (18%) and 009GW01901 (13%). The associated positive and non-detect sample results were flagged as estimated (J) and (UJ).

VI.) Laboratory Control Sample (LCS):

All Laboratory Control Sample criteria were met. No action was required.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

All MS / MSD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

Pesticide/PCB Identification Summary (PIS):

All PIS criteria were met, so no action was required.

IX.) Field Duplicates:

No field duplicates were analyzed by the laboratory for pesticides and PCB's. No action was required.

X.) Pesticide Cleanup Check:

Florisil Cartridge Check:

Data were not available in the package. No action was taken.

Gel Permeation Chromatography (GPC):

GPC was not required for samples in this SDG.

XI.) Overall Assessment of Data/General:

All laboratory data were acceptable with qualification.

TOTAL METALS AND CYANIDE

I.) Holding Times:

All Holding Time criteria were met, so no action was taken.

II.) Calibration:

All Calibration criteria were met, no action was required.

III.) Blanks:

The following blank results represent the highest detections associated with the samples and were used for data qualification:

Blank Type/ID#	Element	Max. Conc. ug/L	Action Level ug/L
CCB1	aluminum	16.7	83.5
CCB8	antimony	13.7	8.5
ICB	arsenic	3.4	17.0
CCB5	barium	7.0	35.0
CCB1	beryllium	0.4	2.00
PB	calcium	242	1210

Blank Type/ID#	Element	Max. Conc. ug/L	Action Level ug/L
CCB8	chromium	3.6	18.0
CCB2	copper	3.1	15.5
PB	iron	94.7	474
PB	magnesium	33.3	167
CCB1	manganese	1.7	8.50
CCB5	nickel	8.6	43.0
CCB5	potassium	592	2960
ICB	silver	2.2	11.0
PB	sodium	178	890
CCB1	vanadium	3.3	16.5
CCB11	zinc	18.2	91.0

CCB = Continuing Calibration Blank, PB = Preparation Blank, ICB = Initial Calibration Blank

All results greater than the IDL but less than 5X the blank amount (Action Level, ug/L) for which the contaminated blank was an associated calibration or laboratory preparation blank were flagged as undetected (U).

The following analytes had negative results with absolute values greater than the IDL's:

Blank Type/ID#	Analyte	Neg. Conc.	5X Conc. (ug/L)
CCB3	cadmium	-1.3 ug/L	6.50
PB	thallium	-4.1 ug/L	20.5
ICB2	zinc	-5.8 ug/L	29.0

CCB = Continuing Calibration Blank, PB = Preparation Blank, ICB = Initial Calibration Blank

All associated positive sample results less than 5X the absolute value of the negative blank result were flagged as estimated (J) and all non-detects were flagged as estimated (UJ).

IV.) ICP Interference Check Sample Results:

All Percent Recovery criteria for the method were met, so no action was taken.

Sodium and zinc were present at 86 ug/L and 9 ug/L, respectively, in ICS Solution A, which were concentrations greater than 2X IDL. These analytes should not be present. Since aluminum, calcium, iron or magnesium were not present in any other sample at concentrations greater than their respective concentrations in ICS Solution A, no data qualification was required.

A negative result with an absolute value greater than the IDL was observed for each of the following analytes:

Analyte	Neg. Conc.
antimony	-35 ug/L
arsenic	-3 ug/L

Analyte	Neg. Conc.
barium	-17 ug/L
chromium	-6 ug/L
copper	-8 ug/L
zinc	-4 ug/L

Since aluminum, calcium, iron and magnesium were not present in any other sample at concentrations greater than their respective concentrations in ICS Solution A, no data qualification was required.

V.) ICP Serial Dilution Analysis:

ICP Serial Dilution results were not reported in the laboratory report for this SDG. No action was taken.

VI.) Laboratory Control Samples (LCS):

All Laboratory Control Sample criteria were met, so no action was taken.

VII.) Duplicate Sample Analysis:

The Relative Percent Differences (RPD's) of the following analytes in water duplicate sample 009GW01601D were outside the 20% QC limit and sample results were greater than 5X CRDL:

calcium	23.1 %
iron	21.0 %
manganese	21.4 %
potassium	21.3 %

All positive results for these analytes in sample 009GW01601 were flagged as estimated (J) and (UJ).

The difference between sample and duplicate for zinc in the same sample was greater than the CRDL and the positive detections of zinc were less than 5X CRDL. The detection of zinc in this sample was eliminated as non-detect based on blank contamination and rejected due to zero percent matrix spike recovery. No further action was necessary.

VIII.) Matrix Spike Recoveries:

Matrix Spike recoveries were outside the 75-125% QC limits for the following analytes which had sample concentrations less than 4X spike concentration:

Analyte	Spike Recovery
mercury	826%
zinc	0 %

The result for zinc in sample 009GW01601 was rejected (R). Since there was no positive result for mercury, no further action was required.

IX.) Field Duplicates:

No field duplicates were analyzed by the laboratory with this SDG. No action was necessary.

X.) Furnace Atomic Absorption QC:

Samples in this SDG were not analyzed by Furnace Atomic Absorption.

XI.) Sample Result, Calculation / Transcription Verification:

All criteria were met, so no action was taken.

XII.) Quarterly Verification of Instrumental Parameters:

All criteria were met, so no action was taken.

XIII.) Overall Assessment of Data/General:

The result for zinc in sample 009GW01601 was rejected due to a zero percent Matrix Spike Recovery. All other laboratory data were acceptable with qualification.

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0536
05 JUL 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Heath and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: FORWARDING OF THE QUARTERLY RFI PROGRESS REPORT.

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the RCRA Facility Investigation (RFI) Progress Report for the Naval Base Charleston Complex in order to comply with its Hazardous and Solid Waste Amendments Part B Permit (EPA SCO 170 022 560), condition II.C.5.

Enclosure (1) is the RFI Progress Report for activity up through June 30, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R L Laney

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Progress Report - Summary through 30 Jun 1995.

Copy to:
SCDHEC (Walton, Bowers)
COMNAVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
USEPA (Brittain)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 June 95 TO 30 June 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 94 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of June 95.

II. PORTION OF THE RFI COMPLETED

- Volumes I through V of the *Final RCRA Facility Assessment* were approved by SCDHEC and USEPA.

- A technical memorandum regarding the proposed statistical methods for calculating background was submitted to SCDHEC and USEPA. The memorandum included an example calculation using the lead values obtained from grid based sampling locations in Zone H.

- Comments regarding the *Draft-Final Zone A and B RFI Work Plan* were received on 23 June 95.

- Groundwater sampling was completed at all 31 monitoring wells located in Zone C. A second phase of soil sampling was completed at SWMU 44, SWMU 47, AOC 508, AOC 510, AOC 512, AOC 518, AOC 520, and at two of the supplemental grid locations. Locations and analytical parameters were selected based on a review of the soil analytical results generated by the initial round of sampling. Surveying of the new soil borings was also completed.

- The "Draft" *Final Zone E RFI Work Plan* was submitted for approval to SCDHEC and USEPA on 5 June 95. A final review of the document is currently underway to ensure a proper response was made to each comment.

- A proposed sampling strategy for SWMU 159 was completed and submitted to SCDHEC and USEPA for written approval. Upon approval, the strategy will be incorporated into the *Final Zone H RFI Work Plan*. Based on a preliminary review by both SCDHEC and USEPA, verbal approval was granted to proceed with sampling. Sample collection was completed during the month of June.

- Groundwater sampling was completed at all 55 monitoring wells located in Zone I. A second phase of soil sampling was completed at SWMU 12, AOC 678, AOC 679, AOC 681, AOC 685, and AOC 690. Locations and analytical parameters were selected based on a review of the soil analytical results generated by the initial round of sampling. Surveying of the new soil borings was also completed.

- The transfer of the RTC-1 property in Zone I to NOAA necessitated the collection of soil samples and expedited analysis to establish the baseline condition of the property. The samples were outside the scope of the *Final Zone I RFI Work Plan* but are mentioned in this status report because the data will be included in the Zone I RFI report. Attachment A is a figure depicting sample locations.

- The *Draft-Final Zone J RFI Work Plan* was submitted to SCDHEC and USEPA on 9 June 95 for review and comment.

III. SUMMARIES OF FINDINGS

Attachment B is summary of the findings to date (soil only) in Zones C and I. The summary report differs from previous summary reports in that it is a site and compound specific report generated directly from the project database. The summary includes data collected through the month of June 95. All results are still **preliminary** and **unvalidated**.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the June 1995 meeting and the minutes of the

May 1995 meeting are provided as Attachment C. The minutes of the June 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

Previous status reports indicated that USEPA has requested that the data validation subcontractor and all of the laboratories performing work for the NAVBASE Charleston RFI be willing to participate in an audit of their facility by USEPA personnel. Final coordination of the audits is currently underway. The audit schedule (which is subject to change) at the time this report was generated is as follows:

- 11 July 95 — Validata, Inc.
- 19 July 95 — Savannah Laboratories, Inc.
- 25 July 95 — Pace, Inc. (Indianapolis) and Compuchem Environmental
- 27 July 95 — Pace, Inc. (New Hampshire)

A test set of Zone H data was submitted on 17 May 95 to USEPA using the Interchange File Format (IFF) with the intent of further evaluating the use of electronic media to transmit data. A cover letter to Mr. Richard Hammond was included inside the package; however, the address label did not specifically identify Mr. Hammond as the intended recipient. As a consequence, Mr. Hammond never received the original set of deliverables. A second set of deliverables was later sent to Mr. Hammond's attention to ensure that he would get the requested information.

A 30 day deadline extension request for the submittal of the *Draft-Final Zone H RFI Report* was submitted 26 June 95. A schedule for the preparation and internal review of the document has been established as a preventative measure to ensure that the document is completed within the 30 day period. Weekly updates to the schedule are being reported along with a brief narrative that will identify any missed milestones and reasons for the missed intermediate deadlines. The weekly update will allow necessary corrective actions to be implemented in a timely manner so that the new deadline will be met. A copy of the schedule which indicates the status of the report as of 30 June 95 is enclosed as Attachment D.

Potential future scheduling problems include 1) preparation of the RFI work plan for Zones D, F, and G; and 2) the third quarter sampling event for the Zone H monitoring wells. As of 30 June 95, no funding was available to task the contractor to begin either of these tasks.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- The *Draft-Final Zone H RFI Report* and the *Draft-Final CMS Work Plan* are proposed to be submitted to SCDHEC and USEPA for review on 28 July 95.
- The *Draft Focused Field Investigation Technical Memo* is anticipated to be submitted along with the *Draft Zone H RFI Report* to the USEPA and SCDHEC for review and comment.
- Incorporation of SCDHEC and USEPA comments into the *Final Zone E RFI Work Plan* will be completed in early July.
- Review of the Zone C and I analytical data will continue in an effort to identify any data gaps which may exist.
- Preparation of the draft work plan for Zones D, F, and G will begin if funding becomes available.
- Production and distribution of Volumes I through V of the *Final RCRA Facility Assessment* will be completed.
- Preparation of the *Draft Zone K RFI Work Plan* is scheduled to begin 31 July 95.

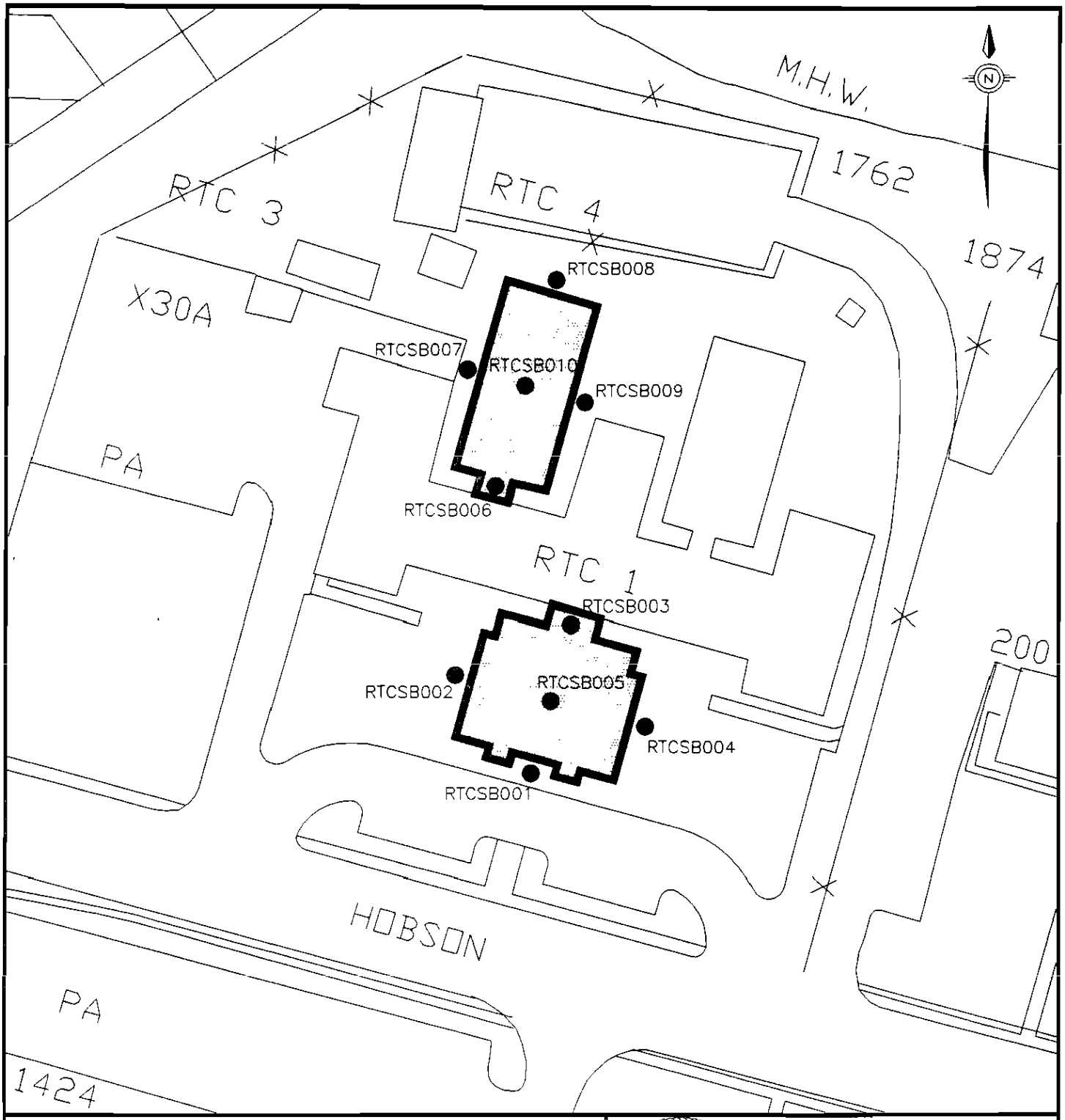
Field Activities:

- Where necessary, installation of additional monitoring wells to fill data gaps identified in Zones C and I will begin. All proposed locations will be submitted to SCDHEC for approval prior to start of work.
- Upon acceptance of the *Final Zone E RFI Work Plan* by SCDHEC and USEPA, field work will begin.
- Coordination for subcontract services necessary for the Zone E RFI field work will begin.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Attachment E is a copy of the analytical data for Zones C and I received during the month of May. At the present time, all data included in the attachment should be regarded as preliminary and used for informational purposes only as it has yet to be validated.



LEGEND

RTCSB002 – SOIL BORINGS WITH SAMPLE NUMBER

– NEW CONSTRUCTION

GRAPHIC SCALE 60 30 0 60 120

ZONE I RFI
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

FIGURE A
SOIL BORING LOCATIONS
BUILDING RTC-1

DWG DATE: 6/8/95 | DWG NAME: RTCSB001

Sampling Unit	=	Depth Interval
01	=	0-1 foot
02	=	3-5 feet

Chemicals Less Than Screening Value for Soil

SWMU 044 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	138.58	138.580	138.58	430.00	0	1 / 1
1234678-HpCDF	PG/G	20.08	20.089	20.08	430.00	0	1 / 1
123478-HxCDF	PG/G	4.50	4.500	4.50	43.00	0	1 / 1
1234789-HpCDF	PG/G	1.03	1.030	1.03	43.00	0	1 / 1
123789-HxCDD	PG/G	2.89	2.894	2.89	43.00	0	1 / 1
2,4,5-T	UG/KG	18.00	18.000	18.00	78000.00	0	1 / 1
2,4,5-TP (Silvex)	UG/KG	1.90	1.900	1.90	63000.00	0	1 / 1
2,4-D	UG/KG	7.70	7.700	7.70	78000.00	0	1 / 1
2-Methylnaphthalene	UG/KG	91.00	91.000	91.00	310000.00	0	1 / 1
234678-HxCDF	PG/G	0.85	0.857	0.85	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.34	0.340	0.34	2700.00	0	1 / 1
4,4'-DDT	UG/KG	0.27	0.270	0.27	1900.00	0	1 / 1
Acenaphthylene	UG/KG	75.00	75.000	75.00	470000.00	0	1 / 1
Anthracene	UG/KG	63.00	63.000	63.00	******.**	0	1 / 1
Barium	MG/KG	26.10	40.550	55.40	550.00	0	4 / 8
Benzo(a)anthracene	UG/KG	460.00	460.000	460.00	880.00	0	1 / 1
Cadmium	MG/KG	1.05	2.325	3.60	7.80	0	2 / 8
Chlordane	UG/KG	2.40	2.400	2.40	470.00	0	1 / 1
Chromium	MG/KG	32.00	32.000	32.00	39.00	0	1 / 8
Chrysene	UG/KG	530.00	530.000	530.00	88000.00	0	1 / 1
Cyanide	MG/KG	4.30	4.300	4.30	160.00	0	1 / 8
Dibenzofuran	UG/KG	43.00	43.000	43.00	31000.00	0	1 / 1
Dieldrin	UG/KG	1.00	1.000	1.00	40.00	0	1 / 1
Endosulfan I	UG/KG	0.08	0.085	0.08	47000.00	0	1 / 1
Endosulfan II	UG/KG	0.53	0.530	0.53	47000.00	0	1 / 1
Endosulfan sulfate	UG/KG	0.43	0.430	0.43	47000.00	0	1 / 1
Endrin	UG/KG	0.60	0.600	0.60	2300.00	0	1 / 1
Fluoranthene	UG/KG	660.00	660.000	660.00	310000.00	0	1 / 1
Heptachlor epoxide	UG/KG	1.20	1.200	1.20	70.00	0	1 / 1
Manganese	MG/KG	219.00	219.000	219.00	1092.00	0	1 / 8
Methoxychlor	UG/KG	0.64	0.640	0.64	39000.00	0	1 / 1
Methylene chloride	UG/KG	15.00	15.000	15.00	85000.00	0	1 / 1
Naphthalene	UG/KG	97.00	97.000	97.00	310000.00	0	1 / 1
Nickel	MG/KG	4.40	19.408	43.40	160.00	0	6 / 8
OCDD	PG/G	1288.56	1288.568	1288.56	4300.00	0	1 / 1
OCDF	PG/G	50.81	50.816	50.81	4300.00	0	1 / 1
Phenanthrene	UG/KG	210.00	210.000	210.00	310000.00	0	1 / 1
Pyrene	UG/KG	510.00	510.000	510.00	230000.00	0	1 / 1
Tin	MG/KG	22.40	22.400	22.40	4700.00	0	1 / 8
Toluene	UG/KG	1.00	1.000	1.00	******.**	0	1 / 1
Vanadium	MG/KG	10.50	19.135	42.00	55.00	0	7 / 8
Zinc	MG/KG	6.40	89.587	277.80	2300.00	0	8 / 8
alpha-BHC	UG/KG	0.05	0.054	0.05	100.00	0	1 / 1
beta-BHC	UG/KG	0.42	0.420	0.42	350.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

SWMU 047 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	4.89	13.313	21.72	430.00	0	2 / 2
1234678-HpCDF	PG/G	89.40	100.862	112.32	430.00	0	2 / 2
123478-HxCDF	PG/G	8.81	10.113	11.41	43.00	0	2 / 2
123678-HxCDF	PG/G	2.49	2.493	2.49	43.00	0	1 / 2
123789-HxCDD	PG/G	0.72	0.727	0.72	43.00	0	1 / 2
123789-HxCDF	PG/G	0.71	0.710	0.71	43.00	0	1 / 2
2,4,5-T	UG/KG	1.60	1.600	1.60	78000.00	0	1 / 1
2,4-D	UG/KG	24.00	24.000	24.00	78000.00	0	1 / 1
2-Methylnaphthalene	UG/KG	100.00	100.000	100.00	310000.00	0	1 / 11
234678-HxCDF	PG/G	0.71	1.199	1.68	43.00	0	2 / 2
4,4'-DDD	UG/KG	0.13	0.653	1.70	2700.00	0	8 / 11
4,4'-DDE	UG/KG	0.24	16.576	67.00	1900.00	0	6 / 11
4,4'-DDT	UG/KG	0.17	6.557	46.00	1900.00	0	10 / 11
Acenaphthene	UG/KG	45.00	192.500	340.00	470000.00	0	2 / 11
Acetone	UG/KG	13.00	25.750	47.00	780000.00	0	8 / 11
Aldrin	UG/KG	0.07	0.267	0.80	38.00	0	7 / 11
Anthracene	UG/KG	47.00	425.666	1100.00	******.**	0	3 / 11
Barium	MG/KG	29.50	35.800	42.10	550.00	0	2 / 11
Benzo(a)anthracene	UG/KG	74.00	245.666	560.00	880.00	0	6 / 11
Benzo(b)fluoranthene	UG/KG	450.00	450.000	450.00	880.00	0	2 / 11
Benzo(g,h,i)perylene	UG/KG	100.00	762.000	3000.00	310000.00	0	5 / 11
Benzo(k)fluoranthene	UG/KG	530.00	535.000	540.00	8800.00	0	2 / 11
Chromium	MG/KG	4.80	8.225	13.70	39.00	0	4 / 11
Chrysene	UG/KG	72.00	298.666	600.00	88000.00	0	6 / 11
Cobalt	MG/KG	9.70	9.700	9.70	470.00	0	1 / 11
Copper	MG/KG	3.60	30.960	117.00	290.00	0	5 / 11
Dibenzofuran	UG/KG	380.00	380.000	380.00	31000.00	0	1 / 11
Dieldrin	UG/KG	0.08	0.363	1.10	40.00	0	6 / 11
Diethylphthalate	UG/KG	150.00	150.000	150.00	******.**	0	1 / 11
Dimethoate	UG/KG	9.60	9.600	9.60	1600.00	0	1 / 11
Endosulfan I	UG/KG	0.11	0.392	1.10	47000.00	0	7 / 11
Endosulfan II	UG/KG	0.14	0.822	3.60	47000.00	0	8 / 11
Endosulfan sulfate	UG/KG	0.20	0.503	1.10	47000.00	0	6 / 11
Endrin	UG/KG	0.11	0.673	2.10	2300.00	0	6 / 11
Endrin aldehyde	UG/KG	0.11	0.500	1.10	2300.00	0	6 / 11
Fluoranthene	UG/KG	120.00	481.666	1300.00	310000.00	0	6 / 11
Fluorene	UG/KG	58.00	354.000	650.00	310000.00	0	2 / 11
Heptachlor	UG/KG	0.03	0.623	1.90	140.00	0	8 / 11
Heptachlor epoxide	UG/KG	0.23	0.337	0.52	70.00	0	4 / 11
Lead	MG/KG	3.30	45.922	189.00	400.00	0	9 / 11
Manganese	MG/KG	5.30	23.233	54.20	1092.00	0	9 / 11
Mercury	MG/KG	0.17	0.175	0.18	2.30	0	2 / 11
Methoxychlor	UG/KG	0.32	2.040	9.20	39000.00	0	8 / 11
Methylene chloride	UG/KG	9.00	12.100	15.50	85000.00	0	5 / 11
Naphthalene	UG/KG	430.00	430.000	430.00	310000.00	0	1 / 11
Nickel	MG/KG	9.60	13.200	16.80	160.00	0	2 / 11
OCDD	PG/G	79.68	163.165	246.65	4300.00	0	2 / 2
OCDF	PG/G	222.08	256.903	291.72	4300.00	0	2 / 2
Phenanthrene	UG/KG	37.00	242.333	800.00	310000.00	0	6 / 11
Phenol	UG/KG	68.00	68.000	68.00	******.**	0	1 / 11
Pyrene	UG/KG	110.00	413.333	860.00	230000.00	0	6 / 11
Sulfotepp	UG/KG	1.70	1.700	1.70	3900.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

SWMU 047 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Tin	MG/KG	24.00	24.000	24.00	4700.00	0	1 / 11
Vanadium	MG/KG	8.20	13.650	17.60	55.00	0	5 / 11
Zinc	MG/KG	89.20	93.650	98.10	2300.00	0	2 / 11
alpha-BHC	UG/KG	0.35	0.350	0.35	100.00	0	1 / 11
beta-BHC	UG/KG	0.29	0.413	0.51	350.00	0	3 / 11
bis(2-Ethylhexyl)phthalate	UG/KG	420.00	420.000	420.00	46000.00	0	1 / 11
delta-BHC	UG/KG	0.09	0.395	1.20	490.00	0	4 / 11
gamma-BHC (Lindane)	UG/KG	0.24	0.310	0.37	490.00	0	3 / 11

Chemicals Less Than Screening Value for Soil

AOC 508 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	68.56	68.565	68.56	430.00	0	1 / 1
1234678-HpCDF	PG/G	37.20	37.208	37.20	430.00	0	1 / 1
123478-HxCDF	PG/G	5.44	5.446	5.44	43.00	0	1 / 1
2,4,5-T	UG/KG	12.00	12.000	12.00	78000.00	0	1 / 1
234678-HxCDF	PG/G	1.06	1.065	1.06	43.00	0	1 / 1
4,4'-DDD	UG/KG	1.90	12.450	23.00	2700.00	0	2 / 6
4,4'-DDE	UG/KG	1.60	352.433	1200.00	1900.00	0	6 / 6
Acenaphthylene	UG/KG	101.50	105.750	110.00	470000.00	0	2 / 6
Acetone	UG/KG	11.00	25.000	39.00	780000.00	0	2 / 6
Aldrin	UG/KG	0.34	1.228	2.40	38.00	0	5 / 6
Aluminum	MG/KG	3830.00	4600.833	5150.00	7900.00	0	6 / 6
Anthracene	UG/KG	50.00	50.000	50.00	******.**	0	1 / 6
Barium	MG/KG	37.40	57.783	74.30	550.00	0	3 / 6
Benzo(g,h,i)perylene	UG/KG	41.00	287.000	470.00	310000.00	0	3 / 6
Cadmium	MG/KG	0.82	0.820	0.82	7.80	0	1 / 6
Chlordane	UG/KG	140.00	140.000	140.00	470.00	0	1 / 6
Chromium	MG/KG	4.20	8.125	12.85	39.00	0	6 / 6
Chrysene	UG/KG	39.00	367.800	880.00	88000.00	0	5 / 6
Copper	MG/KG	3.60	15.675	22.15	290.00	0	6 / 6
Dieldrin	UG/KG	1.30	2.466	4.60	40.00	0	3 / 6
Endosulfan I	UG/KG	4.60	4.600	4.60	47000.00	0	1 / 6
Endosulfan II	UG/KG	4.75	10.250	15.00	47000.00	0	3 / 6
Endosulfan sulfate	UG/KG	0.32	2.755	10.00	47000.00	0	6 / 6
Endrin	UG/KG	0.76	7.265	22.00	2300.00	0	4 / 6
Endrin aldehyde	UG/KG	1.40	2.300	3.20	2300.00	0	2 / 6
Fluoranthene	UG/KG	36.00	428.400	980.00	310000.00	0	5 / 6
Heptachlor	UG/KG	0.19	0.450	0.62	140.00	0	3 / 6
Heptachlor epoxide	UG/KG	5.90	6.300	6.70	70.00	0	2 / 6
Indeno(1,2,3-cd)pyrene	UG/KG	37.00	272.333	450.00	880.00	0	3 / 6
Manganese	MG/KG	8.20	38.550	76.00	1092.00	0	6 / 6
Mercury	MG/KG	0.10	0.230	0.32	2.30	0	3 / 6
Methoxychlor	UG/KG	1.80	2.450	3.10	39000.00	0	2 / 6
Methyl parathion	UG/KG	1.80	1.800	1.80	2000.00	0	1 / 1
Methylene chloride	UG/KG	10.00	11.500	14.00	85000.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 508 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	6.00	6.000	6.00	160.00	0	1 / 6
OCDD	PG/G	511.86	511.864	511.86	4300.00	0	1 / 1
OCDF	PG/G	59.57	59.578	59.57	4300.00	0	1 / 1
Phenanthrene	UG/KG	140.00	192.500	245.00	310000.00	0	2 / 6
Pyrene	UG/KG	39.00	486.400	1300.00	230000.00	0	5 / 6
Toluene	UG/KG	1.00	4.000	8.00	******.**	0	3 / 6
Vanadium	MG/KG	5.50	7.540	10.60	55.00	0	5 / 6
Zinc	MG/KG	235.00	235.000	235.00	2300.00	0	1 / 6
alpha-BHC	UG/KG	0.07	0.107	0.14	100.00	0	2 / 6
beta-BHC	UG/KG	0.83	1.215	1.60	350.00	0	2 / 6
bis(2-Ethylhexyl)phthalate	UG/KG	72.00	74.000	76.00	46000.00	0	2 / 6
delta-BHC	UG/KG	0.62	6.673	10.00	490.00	0	3 / 6
gamma-BHC (Lindane)	UG/KG	0.20	0.310	0.42	490.00	0	2 / 6

Chemicals Less Than Screening Value for Soil

AOC 510 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	2.00	2.600	3.20	2700.00	0	2 / 3
4,4'-DDE	UG/KG	0.44	55.220	110.00	1900.00	0	2 / 3
4,4'-DDT	UG/KG	0.43	1.143	1.70	1900.00	0	3 / 3
Acenaphthene	UG/KG	56.00	56.000	56.00	470000.00	0	1 / 3
Aldrin	UG/KG	0.03	0.087	0.14	38.00	0	2 / 3
Aluminum	MG/KG	4070.00	4980.000	6570.00	7900.00	0	3 / 3
Anthracene	UG/KG	91.00	91.000	91.00	******.**	0	1 / 3
Barium	MG/KG	25.20	28.650	32.10	550.00	0	2 / 3
Benzo(a)anthracene	UG/KG	160.00	265.000	370.00	880.00	0	2 / 3
Benzo(b)fluoranthene	UG/KG	470.00	470.000	470.00	880.00	0	1 / 3
Benzo(g,h,i)perylene	UG/KG	90.00	120.000	150.00	310000.00	0	2 / 3
Benzo(k)fluoranthene	UG/KG	480.00	480.000	480.00	8800.00	0	1 / 3
Chlordane	UG/KG	2.00	3.100	4.20	470.00	0	2 / 3
Chromium	MG/KG	6.00	6.500	7.30	39.00	0	3 / 3
Chrysene	UG/KG	240.00	305.000	370.00	88000.00	0	2 / 3
Dieldrin	UG/KG	0.46	0.506	0.54	40.00	0	3 / 3
Endosulfan I	UG/KG	0.18	0.180	0.18	47000.00	0	1 / 3
Endosulfan II	UG/KG	0.23	0.230	0.23	47000.00	0	1 / 3
Endosulfan sulfate	UG/KG	0.72	1.260	1.80	47000.00	0	2 / 3
Endrin	UG/KG	0.35	1.283	2.10	2300.00	0	3 / 3
Fluoranthene	UG/KG	280.00	635.000	990.00	310000.00	0	2 / 3
Heptachlor	UG/KG	0.12	0.173	0.23	140.00	0	3 / 3
Heptachlor epoxide	UG/KG	0.13	0.285	0.44	70.00	0	2 / 3
Indeno(1,2,3-cd)pyrene	UG/KG	89.00	119.500	150.00	880.00	0	2 / 3
Manganese	MG/KG	44.20	49.766	56.10	1092.00	0	3 / 3
Methoxychlor	UG/KG	2.80	2.800	2.80	39000.00	0	1 / 3
Methylene chloride	UG/KG	14.00	14.000	14.00	85000.00	0	1 / 3
Phenanthrene	UG/KG	670.00	670.000	670.00	310000.00	0	1 / 3
Pyrene	UG/KG	170.00	385.000	600.00	230000.00	0	2 / 3

Chemicals Less Than Screening Value for Soil

AOC 510 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Toluene	UG/KG	3.00	4.666	7.00	******.**	0	3 / 3
Vanadium	MG/KG	6.60	7.700	8.60	55.00	0	3 / 3
Zinc	MG/KG	44.20	61.033	71.70	2300.00	0	3 / 3
bis(2-Ethylhexyl)phthalate	UG/KG	120.00	120.000	120.00	46000.00	0	1 / 3
delta-BHC	UG/KG	0.12	0.120	0.12	490.00	0	1 / 3
gamma-BHC (Lindane)	UG/KG	0.05	0.056	0.05	490.00	0	1 / 3

Chemicals Less Than Screening Value for Soil

AOC 511 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	3.17	3.175	3.17	430.00	0	1 / 1
1234678-HpCDF	PG/G	1.73	1.734	1.73	430.00	0	1 / 1
2-Methylnaphthalene	UG/KG	120.00	120.000	120.00	310000.00	0	1 / 6
4,4'-DDD	UG/KG	1.40	6.700	16.00	2700.00	0	3 / 6
4,4'-DDE	UG/KG	3.20	82.440	170.00	1900.00	0	5 / 6
4,4'-DDT	UG/KG	3.30	77.050	240.00	1900.00	0	6 / 6
Aldrin	UG/KG	0.44	0.584	0.74	38.00	0	5 / 6
Aluminum	MG/KG	3240.00	3710.000	4330.00	7900.00	0	6 / 6
Barium	MG/KG	37.60	39.450	41.30	550.00	0	2 / 6
Benzo(a)anthracene	UG/KG	49.00	58.000	75.00	880.00	0	3 / 6
Benzo(a)pyrene	UG/KG	48.00	56.333	69.00	88.00	0	3 / 6
Benzo(b)fluoranthene	UG/KG	85.00	85.000	85.00	880.00	0	1 / 6
Benzo(k)fluoranthene	UG/KG	38.00	38.000	38.00	8800.00	0	1 / 6
Chlordane	UG/KG	12.00	23.500	35.00	470.00	0	2 / 6
Chromium	MG/KG	3.60	5.716	8.80	39.00	0	6 / 6
Chrysene	UG/KG	43.00	71.250	100.00	88000.00	0	4 / 6
Copper	MG/KG	2.80	16.250	70.70	290.00	0	6 / 6
Endosulfan I	UG/KG	0.26	0.260	0.26	47000.00	0	1 / 6
Endosulfan II	UG/KG	0.17	0.510	0.85	47000.00	0	2 / 6
Endosulfan sulfate	UG/KG	0.12	0.630	0.93	47000.00	0	5 / 6
Endrin	UG/KG	0.22	0.704	1.50	2300.00	0	5 / 6
Endrin aldehyde	UG/KG	0.56	0.755	0.95	2300.00	0	2 / 6
Fluoranthene	UG/KG	37.00	77.250	150.00	310000.00	0	4 / 6
Heptachlor	UG/KG	0.77	0.770	0.77	140.00	0	1 / 6
Heptachlor epoxide	UG/KG	0.09	5.130	12.00	70.00	0	3 / 6
Manganese	MG/KG	13.80	26.150	39.80	1092.00	0	4 / 6
Mercury	MG/KG	0.11	0.190	0.28	2.30	0	3 / 6
Methoxychlor	UG/KG	0.53	1.610	2.60	39000.00	0	3 / 6
Methylene chloride	UG/KG	8.00	10.500	15.00	85000.00	0	4 / 6
Naphthalene	UG/KG	84.00	84.000	84.00	310000.00	0	1 / 6
OCDD	PG/G	22.32	22.320	22.32	4300.00	0	1 / 1
OCDF	PG/G	4.11	4.112	4.11	4300.00	0	1 / 1
Phenanthrene	UG/KG	41.00	59.333	77.00	310000.00	0	3 / 6
Pyrene	UG/KG	48.00	61.333	87.00	230000.00	0	3 / 6
Toluene	UG/KG	2.00	3.000	4.00	******.**	0	2 / 6
Vanadium	MG/KG	5.70	8.325	10.90	55.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 511 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Zinc	MG/KG	22.10	22.100	22.10	2300.00	0	2 / 6
beta-BHC	UG/KG	0.42	0.420	0.42	350.00	0	1 / 6
bis(2-Ethylhexyl)phthalate	UG/KG	110.00	110.000	110.00	46000.00	0	1 / 6
delta-BHC	UG/KG	0.08	0.216	0.40	490.00	0	5 / 6
gamma-BHC (Lindane)	UG/KG	0.21	1.405	2.60	490.00	0	2 / 6

Chemicals Less Than Screening Value for Soil

AOC 512 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	22.13	22.131	22.13	430.00	0	1 / 1
1234678-HpCDF	PG/G	9.49	9.490	9.49	430.00	0	1 / 1
123478-HxCDF	PG/G	3.13	3.134	3.13	43.00	0	1 / 1
123678-HxCDF	PG/G	1.12	1.127	1.12	43.00	0	1 / 1
2,4,5-T	UG/KG	8.50	8.500	8.50	78000.00	0	1 / 1
2,4-D	UG/KG	8.10	8.100	8.10	78000.00	0	1 / 1
234678-HxCDF	PG/G	1.23	1.238	1.23	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.23	6.466	29.00	2700.00	0	5 / 6
4,4'-DDE	UG/KG	0.61	43.742	190.00	1900.00	0	5 / 6
4,4'-DDT	UG/KG	0.22	0.275	0.33	1900.00	0	2 / 6
Aldrin	UG/KG	0.28	0.585	1.10	38.00	0	4 / 6
Aroclor-1254	UG/KG	60.00	60.000	60.00	83.00	0	1 / 6
Barium	MG/KG	25.10	32.900	40.70	550.00	0	2 / 6
Benzo(a)anthracene	UG/KG	45.00	79.750	110.00	880.00	0	6 / 6
Benzo(b)fluoranthene	UG/KG	150.00	150.000	150.00	880.00	0	1 / 6
Benzo(k)fluoranthene	UG/KG	130.00	130.000	130.00	8800.00	0	1 / 6
Cadmium	MG/KG	0.64	0.705	0.77	7.80	0	2 / 6
Chlordane	UG/KG	1.70	2.700	4.20	470.00	0	4 / 6
Chromium	MG/KG	9.05	13.575	21.70	39.00	0	6 / 6
Chrysene	UG/KG	58.00	84.666	120.00	88000.00	0	6 / 6
Di-n-butylphthalate	UG/KG	42.00	50.166	62.00	780000.00	0	6 / 6
Dieldrin	UG/KG	0.06	0.198	0.35	40.00	0	3 / 6
Dimethoate	UG/KG	5.30	5.300	5.30	1600.00	0	1 / 6
Disulfoton	UG/KG	5.20	5.200	5.20	310.00	0	1 / 1
Endosulfan I	UG/KG	0.50	1.466	2.40	47000.00	0	3 / 6
Endosulfan II	UG/KG	0.27	0.562	1.10	47000.00	0	5 / 6
Endosulfan sulfate	UG/KG	1.10	1.233	1.40	47000.00	0	3 / 6
Endrin	UG/KG	0.36	1.062	1.60	2300.00	0	5 / 6
Endrin aldehyde	UG/KG	0.25	2.930	7.60	2300.00	0	3 / 6
Fluoranthene	UG/KG	76.00	146.000	200.00	310000.00	0	6 / 6
Heptachlor	UG/KG	0.12	0.146	0.17	140.00	0	3 / 6
Heptachlor epoxide	UG/KG	0.26	0.460	0.70	70.00	0	6 / 6
Manganese	MG/KG	43.55	173.108	280.00	1092.00	0	6 / 6
Methoxychlor	UG/KG	0.65	1.514	2.70	39000.00	0	5 / 6
Methyl parathion	UG/KG	4.70	4.700	4.70	2000.00	0	1 / 1
Methylene chloride	UG/KG	13.50	14.100	15.00	85000.00	0	5 / 6
Nickel	MG/KG	6.50	7.875	9.50	160.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 512 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
OCDD	PG/G	186.12	186.121	186.12	4300.00	0	1 / 1
OCDF	PG/G	9.77	9.778	9.77	4300.00	0	1 / 1
Phenanthrene	UG/KG	49.00	80.300	120.00	310000.00	0	5 / 6
Pyrene	UG/KG	52.00	89.583	133.50	230000.00	0	6 / 6
Sulfotepp	UG/KG	4.50	4.500	4.50	3900.00	0	1 / 1
Vanadium	MG/KG	12.55	17.375	24.50	55.00	0	6 / 6
Zinc	MG/KG	38.35	76.225	124.00	2300.00	0	6 / 6
beta-BHC	UG/KG	0.43	0.430	0.43	350.00	0	1 / 6
delta-BHC	UG/KG	0.16	0.180	0.20	490.00	0	4 / 6
gamma-BHC (Lindane)	UG/KG	0.09	0.093	0.09	490.00	0	1 / 6

Chemicals Less Than Screening Value for Soil

AOC 513 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.67	1.801	4.40	2700.00	0	6 / 6
4,4'-DDE	UG/KG	1.70	15.833	37.00	1900.00	0	3 / 6
4,4'-DDT	UG/KG	1.90	10.950	20.00	1900.00	0	2 / 6
Acetone	UG/KG	6.00	6.666	7.00	780000.00	0	3 / 6
Aldrin	UG/KG	0.11	0.208	0.31	38.00	0	6 / 6
Aluminum	MG/KG	3970.00	4238.333	4510.00	7900.00	0	6 / 6
Benzo(a)anthracene	UG/KG	72.00	111.000	150.00	880.00	0	2 / 6
Benzo(a)pyrene	UG/KG	67.00	67.000	67.00	88.00	0	1 / 6
Chromium	MG/KG	4.30	4.500	5.10	39.00	0	6 / 6
Chrysene	UG/KG	74.00	92.000	110.00	88000.00	0	2 / 6
Copper	MG/KG	4.40	4.550	4.70	290.00	0	2 / 6
Di-n-butylphthalate	UG/KG	39.00	45.600	50.00	780000.00	0	5 / 6
Dieldrin	UG/KG	0.53	0.833	1.00	40.00	0	3 / 6
Endosulfan I	UG/KG	0.96	1.253	1.50	47000.00	0	3 / 6
Endosulfan II	UG/KG	0.09	0.265	0.36	47000.00	0	5 / 6
Endosulfan sulfate	UG/KG	1.40	1.633	2.00	47000.00	0	3 / 6
Endrin	UG/KG	1.20	1.200	1.20	2300.00	0	1 / 6
Endrin aldehyde	UG/KG	0.59	0.590	0.59	2300.00	0	1 / 6
Fluoranthene	UG/KG	100.00	105.000	110.00	310000.00	0	2 / 6
Heptachlor	UG/KG	0.04	0.141	0.29	140.00	0	4 / 6
Heptachlor epoxide	UG/KG	0.03	0.160	0.32	70.00	0	4 / 6
Lead	MG/KG	13.20	48.116	120.00	400.00	0	6 / 6
Manganese	MG/KG	15.10	24.616	33.50	1092.00	0	6 / 6
Methoxychlor	UG/KG	0.68	1.646	2.30	39000.00	0	6 / 6
Methylene chloride	UG/KG	15.00	15.000	15.00	85000.00	0	1 / 6
Phenanthrene	UG/KG	43.00	43.000	43.00	310000.00	0	1 / 6
Pyrene	UG/KG	96.00	103.000	110.00	230000.00	0	2 / 6
Zinc	MG/KG	8.00	18.400	42.60	2300.00	0	6 / 6
beta-BHC	UG/KG	0.60	0.810	0.96	350.00	0	4 / 6
delta-BHC	UG/KG	0.14	0.295	0.45	490.00	0	2 / 6

Chemicals Less Than Screening Value for Soil

AOC 516 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDE	UG/KG	0.16	0.395	0.63	1900.00	0	2 / 2
4,4'-DDT	UG/KG	0.25	0.250	0.25	1900.00	0	1 / 2
Acetone	UG/KG	11.00	43.500	76.00	780000.00	0	2 / 2
Aldrin	UG/KG	0.17	0.195	0.22	38.00	0	2 / 2
Benzo(a)anthracene	UG/KG	82.00	82.000	82.00	880.00	0	1 / 2
Chrysene	UG/KG	100.00	100.000	100.00	88000.00	0	1 / 2
Copper	MG/KG	12.20	12.200	12.20	290.00	0	1 / 2
Dieldrin	UG/KG	0.41	0.410	0.41	40.00	0	1 / 2
Endosulfan I	UG/KG	0.25	0.250	0.25	47000.00	0	1 / 2
Endosulfan II	UG/KG	0.45	0.450	0.45	47000.00	0	1 / 2
Endosulfan sulfate	UG/KG	0.81	0.810	0.81	47000.00	0	1 / 2
Endrin	UG/KG	0.32	0.445	0.57	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.28	0.610	0.94	2300.00	0	2 / 2
Fluoranthene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 2
Heptachlor	UG/KG	0.79	0.790	0.79	140.00	0	1 / 2
Heptachlor epoxide	UG/KG	0.39	0.505	0.62	70.00	0	2 / 2
Methoxychlor	UG/KG	0.54	0.580	0.62	39000.00	0	2 / 2
Methylene chloride	UG/KG	8.00	8.000	8.00	85000.00	0	1 / 2
Phenanthrene	UG/KG	50.00	50.000	50.00	310000.00	0	1 / 2
Pyrene	UG/KG	120.00	120.000	120.00	230000.00	0	1 / 2
beta-BHC	UG/KG	0.25	0.250	0.25	350.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 517 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.35	0.738	1.10	2700.00	0	5 / 5
4,4'-DDE	UG/KG	0.17	4.565	9.80	1900.00	0	4 / 5
4,4'-DDT	UG/KG	0.45	1.790	2.70	1900.00	0	5 / 5
Acetone	UG/KG	28.00	28.000	28.00	780000.00	0	1 / 5
Aldrin	UG/KG	0.11	0.145	0.18	38.00	0	2 / 5
Aluminum	MG/KG	3450.00	5530.000	6620.00	7900.00	0	5 / 5
Aroclor-1260	UG/KG	79.00	79.000	79.00	83.00	0	1 / 5
Butylbenzylphthalate	UG/KG	720.00	720.000	720.00	******.**	0	1 / 5
Chromium	MG/KG	5.30	6.540	10.10	39.00	0	5 / 5
Di-n-butylphthalate	UG/KG	49.00	65.800	89.00	780000.00	0	5 / 5
Dieldrin	UG/KG	0.18	0.562	1.40	40.00	0	5 / 5
Endosulfan I	UG/KG	0.45	0.775	1.10	47000.00	0	2 / 5
Endosulfan II	UG/KG	1.70	1.700	1.70	47000.00	0	1 / 5
Endosulfan sulfate	UG/KG	1.00	1.000	1.00	47000.00	0	1 / 5
Endrin	UG/KG	0.38	0.693	0.95	2300.00	0	3 / 5
Endrin aldehyde	UG/KG	0.72	0.960	1.20	2300.00	0	2 / 5
Heptachlor	UG/KG	0.10	0.263	0.37	140.00	0	3 / 5
Heptachlor epoxide	UG/KG	0.21	0.420	0.97	70.00	0	5 / 5
Manganese	MG/KG	15.30	20.400	27.30	1092.00	0	5 / 5
Mercury	MG/KG	0.16	0.160	0.16	2.30	0	1 / 5
Methoxychlor	UG/KG	0.40	1.025	1.70	39000.00	0	4 / 5

Chemicals Less Than Screening Value for Soil

AOC 517 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Methylene chloride	UG/KG	14.00	14.000	14.00	85000.00	0	2 / 5
Nickel	MG/KG	4.80	4.800	4.80	160.00	0	1 / 5
Vanadium	MG/KG	6.90	6.900	6.90	55.00	0	1 / 5
beta-BHC	UG/KG	0.64	0.750	0.96	350.00	0	3 / 5
bis(2-Ethylhexyl)phthalate	UG/KG	74.00	307.000	540.00	46000.00	0	2 / 5
delta-BHC	UG/KG	0.17	0.232	0.26	490.00	0	4 / 5
gamma-BHC (Lindane)	UG/KG	0.28	0.280	0.28	490.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC 518 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	35.41	35.419	35.41	430.00	0	1 / 1
1234678-HpCDF	PG/G	21.14	21.143	21.14	430.00	0	1 / 1
123478-HxCDF	PG/G	2.82	2.826	2.82	43.00	0	1 / 1
1234789-HpCDF	PG/G	0.64	0.647	0.64	43.00	0	1 / 1
123678-HxCDD	PG/G	1.48	1.487	1.48	43.00	0	1 / 1
2,4,5-TP (Silvex)	UG/KG	15.00	15.000	15.00	63000.00	0	1 / 1
234678-HxCDF	PG/G	1.35	1.352	1.35	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.59	1.420	2.25	2700.00	0	2 / 5
4,4'-DDE	UG/KG	1.46	5.382	9.30	1900.00	0	2 / 5
4,4'-DDT	UG/KG	1.20	37.780	130.00	1900.00	0	5 / 5
Acetone	UG/KG	17.00	25.000	34.00	780000.00	0	3 / 5
Aldrin	UG/KG	0.13	0.906	3.40	38.00	0	5 / 5
Aluminum	MG/KG	4880.00	4880.000	4880.00	7900.00	0	1 / 5
Anthracene	UG/KG	39.00	39.000	39.00	******.**	0	1 / 5
Barium	MG/KG	33.10	33.100	33.10	550.00	0	1 / 5
Benzo(a)anthracene	UG/KG	80.00	110.000	140.00	880.00	0	2 / 5
Butylbenzylphthalate	UG/KG	100.00	100.000	100.00	******.**	0	1 / 5
Cadmium	MG/KG	0.75	0.750	0.75	7.80	0	1 / 5
Chromium	MG/KG	6.40	6.400	6.40	39.00	0	1 / 5
Chrysene	UG/KG	150.00	165.000	180.00	88000.00	0	2 / 5
Copper	MG/KG	5.20	18.125	44.30	290.00	0	4 / 5
Di-n-butylphthalate	UG/KG	40.00	450.000	860.00	780000.00	0	2 / 5
Di-n-octylphthalate	UG/KG	70.00	70.000	70.00	160000.00	0	1 / 5
Dieldrin	UG/KG	0.59	2.161	6.70	40.00	0	4 / 5
Diethylphthalate	UG/KG	140.00	140.000	140.00	******.**	0	1 / 5
Dinoseb	UG/KG	20.00	20.000	20.00	7800.00	0	1 / 1
Diphenylamine	UG/KG	130.00	130.000	130.00	200000.00	0	1 / 5
Disulfoton	UG/KG	5.30	5.300	5.30	310.00	0	1 / 1
Endosulfan I	UG/KG	0.14	1.710	5.90	47000.00	0	4 / 5
Endosulfan II	UG/KG	0.18	0.970	1.76	47000.00	0	2 / 5
Endosulfan sulfate	UG/KG	0.28	0.342	0.40	47000.00	0	2 / 5
Endrin	UG/KG	0.59	1.518	2.70	2300.00	0	5 / 5
Endrin aldehyde	UG/KG	0.24	0.265	0.29	2300.00	0	2 / 5
Fluoranthene	UG/KG	240.00	255.000	270.00	310000.00	0	2 / 5
Fluorene	UG/KG	40.00	40.000	40.00	310000.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC 518 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Heptachlor	UG/KG	0.11	1.327	4.10	140.00	0	4 / 5
Heptachlor epoxide	UG/KG	0.12	0.397	1.20	70.00	0	5 / 5
Manganese	MG/KG	24.60	24.600	24.60	1092.00	0	1 / 5
Methoxychlor	UG/KG	0.41	1.070	1.60	39000.00	0	4 / 5
Methyl parathion	UG/KG	9.60	9.600	9.60	2000.00	0	1 / 1
Methylene chloride	UG/KG	8.00	11.333	14.00	85000.00	0	3 / 5
N-Nitrosodiphenylamine	UG/KG	130.00	130.000	130.00	130000.00	0	1 / 5
OCDD	PG/G	213.47	213.471	213.47	4300.00	0	1 / 1
OCDF	PG/G	37.88	37.881	37.88	4300.00	0	1 / 1
Phenanthrene	UG/KG	84.00	162.000	240.00	310000.00	0	2 / 5
Pyrene	UG/KG	240.00	335.000	430.00	230000.00	0	2 / 5
Sulfotepp	UG/KG	4.70	4.700	4.70	3900.00	0	1 / 1
Toluene	UG/KG	1.00	2.000	3.00	******.**	0	4 / 5
alpha-BHC	UG/KG	0.07	0.077	0.07	100.00	0	1 / 5
beta-BHC	UG/KG	0.34	1.426	5.20	350.00	0	5 / 5
bis(2-Ethylhexyl)phthalate	UG/KG	490.00	700.000	910.00	46000.00	0	2 / 5
delta-BHC	UG/KG	0.10	0.800	1.50	490.00	0	2 / 5

Chemicals Less Than Screening Value for Soil

AOC 520 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.10	1.400	2.40	2700.00	0	4 / 6
4,4'-DDE	UG/KG	0.10	9.175	34.00	1900.00	0	4 / 6
4,4'-DDT	UG/KG	0.19	0.542	1.40	1900.00	0	4 / 6
Acetone	UG/KG	10.00	24.666	39.00	780000.00	0	6 / 6
Aldrin	UG/KG	0.02	0.231	0.61	38.00	0	5 / 6
Aluminum	MG/KG	4540.00	4743.333	4960.00	7900.00	0	3 / 6
Benzo(a)anthracene	UG/KG	170.00	170.000	170.00	880.00	0	1 / 6
Chromium	MG/KG	3.60	3.933	4.30	39.00	0	3 / 6
Chrysene	UG/KG	170.00	170.000	170.00	88000.00	0	1 / 6
Cobalt	MG/KG	6.50	8.400	10.30	470.00	0	2 / 6
Copper	MG/KG	3.40	4.366	5.90	290.00	0	3 / 6
Di-n-butylphthalate	UG/KG	45.00	45.000	45.00	780000.00	0	1 / 6
Dieldrin	UG/KG	0.15	3.250	8.40	40.00	0	3 / 6
Endosulfan I	UG/KG	0.04	0.270	0.50	47000.00	0	2 / 6
Endosulfan II	UG/KG	0.20	2.230	4.30	47000.00	0	4 / 6
Endosulfan sulfate	UG/KG	0.01	0.826	3.00	47000.00	0	4 / 6
Endrin	UG/KG	0.06	0.379	0.90	2300.00	0	5 / 6
Endrin aldehyde	UG/KG	0.23	1.290	2.80	2300.00	0	4 / 6
Fluoranthene	UG/KG	280.00	280.000	280.00	310000.00	0	1 / 6
Heptachlor	UG/KG	0.04	2.573	8.50	140.00	0	4 / 6
Heptachlor epoxide	UG/KG	0.08	1.019	3.00	70.00	0	4 / 6
Lead	MG/KG	2.50	5.533	8.70	400.00	0	3 / 6
Manganese	MG/KG	15.20	17.966	19.80	1092.00	0	3 / 6
Methoxychlor	UG/KG	0.38	2.178	5.60	39000.00	0	5 / 6
Methylene chloride	UG/KG	10.00	11.250	13.00	85000.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 520 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Phenanthrene	UG/KG	120.00	120.000	120.00	310000.00	0	1 / 6
Pyrene	UG/KG	200.00	200.000	200.00	230000.00	0	1 / 6
Zinc	MG/KG	4.80	7.933	11.20	2300.00	0	3 / 6
alpha-BHC	UG/KG	0.31	0.310	0.31	100.00	0	1 / 6
beta-BHC	UG/KG	0.28	0.280	0.28	350.00	0	1 / 6
delta-BHC	UG/KG	0.13	0.675	1.40	490.00	0	4 / 6
gamma-BHC (Lindane)	UG/KG	0.08	0.119	0.18	490.00	0	3 / 6

Chemicals Less Than Screening Value for Soil

AOC 523 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.18	0.790	1.40	2700.00	0	2 / 2
4,4'-DDE	UG/KG	0.59	7.295	14.00	1900.00	0	2 / 2
4,4'-DDT	UG/KG	0.08	11.042	22.00	1900.00	0	2 / 2
Acetone	UG/KG	10.00	10.500	11.00	780000.00	0	2 / 2
Aldrin	UG/KG	0.26	0.410	0.56	38.00	0	2 / 2
Aluminum	MG/KG	4760.00	4835.000	4910.00	7900.00	0	2 / 2
Barium	MG/KG	34.70	34.700	34.70	550.00	0	1 / 2
Benzo(a)anthracene	UG/KG	130.00	130.000	130.00	880.00	0	1 / 2
Benzo(g,h,i)perylene	UG/KG	43.00	43.000	43.00	310000.00	0	1 / 2
Benzo(k)fluoranthene	UG/KG	240.00	240.000	240.00	8800.00	0	1 / 2
Chrysene	UG/KG	130.00	130.000	130.00	88000.00	0	1 / 2
Dieldrin	UG/KG	0.09	0.597	1.10	40.00	0	2 / 2
Endosulfan I	UG/KG	0.11	0.160	0.21	47000.00	0	2 / 2
Endosulfan II	UG/KG	0.55	1.425	2.30	47000.00	0	2 / 2
Endosulfan sulfate	UG/KG	0.05	0.128	0.20	47000.00	0	2 / 2
Endrin	UG/KG	0.31	1.355	2.40	2300.00	0	2 / 2
Fluoranthene	UG/KG	61.00	120.500	180.00	310000.00	0	2 / 2
Heptachlor	UG/KG	0.80	0.800	0.80	140.00	0	1 / 2
Heptachlor epoxide	UG/KG	0.27	0.520	0.77	70.00	0	2 / 2
Indeno(1,2,3-cd)pyrene	UG/KG	48.00	48.000	48.00	880.00	0	1 / 2
Manganese	MG/KG	24.50	29.450	34.40	1092.00	0	2 / 2
Mercury	MG/KG	0.25	0.250	0.25	2.30	0	1 / 2
Methoxychlor	UG/KG	1.40	1.400	1.40	39000.00	0	1 / 2
Methylene chloride	UG/KG	12.00	12.500	13.00	85000.00	0	2 / 2
Nickel	MG/KG	6.00	6.000	6.00	160.00	0	1 / 2
Phenanthrene	UG/KG	83.00	83.000	83.00	310000.00	0	1 / 2
Pyrene	UG/KG	52.00	111.000	170.00	230000.00	0	2 / 2
Vanadium	MG/KG	8.10	8.100	8.10	55.00	0	1 / 2
alpha-BHC	UG/KG	0.01	0.056	0.10	100.00	0	2 / 2
delta-BHC	UG/KG	0.09	0.095	0.09	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	323.04	323.041	323.04	430.00	0	1 / 1
1234678-HpCDF	PG/G	63.00	63.001	63.00	430.00	0	1 / 1
123478-HxCDD	PG/G	4.32	4.324	4.32	43.00	0	1 / 1
123678-HxCDD	PG/G	7.36	7.369	7.36	43.00	0	1 / 1
123789-HxCDD	PG/G	9.82	9.823	9.82	43.00	0	1 / 1
2,4,5-T	UG/KG	2.00	8.500	15.00	78000.00	0	2 / 2
2,4,5-TP (Silvex)	UG/KG	14.00	14.000	14.00	63000.00	0	1 / 2
4,4'-DDD	UG/KG	0.22	0.790	1.50	2700.00	0	4 / 10
Acetone	UG/KG	11.00	20.200	35.00	780000.00	0	5 / 10
Aldrin	UG/KG	0.14	0.410	0.78	38.00	0	4 / 10
Anthracene	UG/KG	39.00	39.000	39.00	******.**	0	1 / 10
Barium	MG/KG	22.30	53.150	97.40	550.00	0	4 / 36
Benzo(a)anthracene	UG/KG	50.00	158.250	330.00	880.00	0	4 / 10
Benzo(b)fluoranthene	UG/KG	49.00	99.500	150.00	880.00	0	2 / 10
Benzo(g,h,i)perylene	UG/KG	95.00	95.000	95.00	310000.00	0	1 / 10
Benzo(k)fluoranthene	UG/KG	52.00	106.000	160.00	8800.00	0	2 / 10
Cadmium	MG/KG	0.65	0.650	0.65	7.80	0	1 / 36
Chlordane	UG/KG	13.00	151.500	290.00	470.00	0	2 / 10
Chromium	MG/KG	3.10	11.361	31.80	39.00	0	13 / 36
Chrysene	UG/KG	76.00	183.750	390.00	88000.00	0	4 / 10
Copper	MG/KG	3.50	11.107	38.30	290.00	0	14 / 36
Di-n-butylphthalate	UG/KG	50.00	72.500	95.00	780000.00	0	2 / 10
Dimethoate	UG/KG	7.10	7.100	7.10	1600.00	0	1 / 10
Endosulfan I	UG/KG	0.11	0.402	0.94	47000.00	0	4 / 10
Endosulfan II	UG/KG	0.34	1.353	3.60	47000.00	0	8 / 10
Endosulfan sulfate	UG/KG	0.37	0.676	0.87	47000.00	0	3 / 10
Endrin	UG/KG	0.35	1.651	4.70	2300.00	0	8 / 10
Endrin aldehyde	UG/KG	0.48	1.854	6.60	2300.00	0	5 / 10
Fluoranthene	UG/KG	42.00	211.500	630.00	310000.00	0	6 / 10
Heptachlor	UG/KG	0.09	0.852	1.90	140.00	0	4 / 10
Heptachlor epoxide	UG/KG	0.18	1.310	5.00	70.00	0	5 / 10
Indeno(1,2,3-cd)pyrene	UG/KG	57.00	138.500	220.00	880.00	0	2 / 10
Lead	MG/KG	2.70	30.391	121.00	400.00	0	12 / 36
Manganese	MG/KG	19.70	50.637	74.20	1092.00	0	8 / 36
Mercury	MG/KG	0.11	0.168	0.24	2.30	0	5 / 36
Methoxychlor	UG/KG	0.36	1.552	3.50	39000.00	0	7 / 10
Methylene chloride	UG/KG	12.00	13.750	15.00	85000.00	0	4 / 10
Nickel	MG/KG	4.90	10.228	27.70	160.00	0	7 / 36
OCDD	PG/G	1953.28	1953.282	1953.28	4300.00	0	1 / 1
OCDF	PG/G	148.41	148.415	148.41	4300.00	0	1 / 1
Phenanthrene	UG/KG	140.00	186.666	240.00	310000.00	0	3 / 10
Pyrene	UG/KG	50.00	259.000	950.00	230000.00	0	6 / 10
Tin	MG/KG	8.10	8.100	8.10	4700.00	0	1 / 36
Toluene	UG/KG	2.00	2.000	2.00	******.**	0	3 / 10
Vanadium	MG/KG	5.30	10.068	24.30	55.00	0	19 / 36
Zinc	MG/KG	3.40	85.970	414.00	2300.00	0	10 / 36
alpha-BHC	UG/KG	0.04	0.160	0.28	100.00	0	2 / 10
beta-BHC	UG/KG	0.43	8.220	31.00	350.00	0	4 / 10
delta-BHC	UG/KG	0.14	0.182	0.28	490.00	0	4 / 10
gamma-BHC (Lindane)	UG/KG	0.09	0.148	0.18	490.00	0	3 / 10

Chemicals Less Than Screening Value for Soil

SWMU 044 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Barium	MG/KG	37.40	37.400	37.40	550.00	0	1 / 1
Cadmium	MG/KG	1.20	1.200	1.20	7.80	0	1 / 1
Nickel	MG/KG	13.60	13.600	13.60	160.00	0	1 / 1
Zinc	MG/KG	132.00	132.000	132.00	2300.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

SWMU 047 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.24	0.372	0.47	2700.00	0	4 / 9
4,4'-DDE	UG/KG	0.07	0.422	1.00	1900.00	0	3 / 9
4,4'-DDT	UG/KG	0.02	0.250	0.64	1900.00	0	5 / 9
Acetone	UG/KG	11.00	51.111	130.00	780000.00	0	9 / 9
Aldrin	UG/KG	0.05	0.179	0.30	38.00	0	2 / 9
Barium	MG/KG	25.90	30.866	36.00	550.00	0	3 / 9
Benzo(a)anthracene	UG/KG	250.00	250.000	250.00	880.00	0	1 / 9
Benzo(b)fluoranthene	UG/KG	430.00	430.000	430.00	880.00	0	1 / 9
Benzo(g,h,i)perylene	UG/KG	150.00	150.000	150.00	310000.00	0	1 / 9
Benzo(k)fluoranthene	UG/KG	480.00	480.000	480.00	8800.00	0	1 / 9
Chromium	MG/KG	5.20	5.200	5.20	39.00	0	1 / 9
Chrysene	UG/KG	380.00	380.000	380.00	88000.00	0	1 / 9
Copper	MG/KG	8.10	20.075	41.40	290.00	0	4 / 9
Dieldrin	UG/KG	0.11	0.206	0.31	40.00	0	3 / 9
Endosulfan I	UG/KG	0.16	0.580	1.00	47000.00	0	2 / 9
Endosulfan II	UG/KG	0.10	0.110	0.12	47000.00	0	2 / 9
Endosulfan sulfate	UG/KG	0.11	0.374	0.88	47000.00	0	7 / 9
Endrin	UG/KG	0.13	0.130	0.13	2300.00	0	1 / 9
Endrin aldehyde	UG/KG	0.06	0.104	0.14	2300.00	0	2 / 9
Fluoranthene	UG/KG	600.00	600.000	600.00	310000.00	0	1 / 9
Heptachlor	UG/KG	0.10	0.110	0.12	140.00	0	3 / 9
Heptachlor epoxide	UG/KG	0.05	0.054	0.05	70.00	0	1 / 9
Indeno(1,2,3-cd)pyrene	UG/KG	140.00	140.000	140.00	880.00	0	1 / 9
Lead	MG/KG	2.10	20.537	54.60	400.00	0	8 / 9
Manganese	MG/KG	5.80	55.225	276.00	1092.00	0	8 / 9
Mercury	MG/KG	0.62	0.620	0.62	2.30	0	1 / 9
Methoxychlor	UG/KG	0.02	1.052	2.50	39000.00	0	6 / 9
Nickel	MG/KG	11.20	11.300	11.40	160.00	0	2 / 9
Phenanthrene	UG/KG	320.00	320.000	320.00	310000.00	0	1 / 9
Pyrene	UG/KG	48.00	269.000	490.00	230000.00	0	2 / 9
Zinc	MG/KG	2.50	2.500	2.50	2300.00	0	1 / 9
alpha-BHC	UG/KG	0.03	0.030	0.03	100.00	0	1 / 9
beta-BHC	UG/KG	0.46	0.460	0.46	350.00	0	1 / 9
delta-BHC	UG/KG	0.04	0.041	0.04	490.00	0	1 / 9
gamma-BHC (Lindane)	UG/KG	0.05	0.056	0.05	490.00	0	1 / 9

Chemicals Less Than Screening Value for Soil

AOC 508 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.12	0.120	0.12	2700.00	0	1 / 1
4,4'-DDE	UG/KG	1.30	1.300	1.30	1900.00	0	1 / 1
4,4'-DDT	UG/KG	1.50	1.500	1.50	1900.00	0	1 / 1
Aluminum	MG/KG	925.00	925.000	925.00	7900.00	0	1 / 1
Chromium	MG/KG	1.40	1.400	1.40	39.00	0	1 / 1
Dieldrin	UG/KG	0.48	0.480	0.48	40.00	0	1 / 1
Endosulfan I	UG/KG	0.13	0.130	0.13	47000.00	0	1 / 1
Endrin aldehyde	UG/KG	0.07	0.077	0.07	2300.00	0	1 / 1
Lead	MG/KG	1.90	1.900	1.90	400.00	0	1 / 1
Manganese	MG/KG	4.20	4.200	4.20	1092.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC 510 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	9.99	9.997	9.99	430.00	0	1 / 1
1234678-HpCDF	PG/G	6.23	6.233	6.23	430.00	0	1 / 1
2,4,5-T	UG/KG	11.00	11.000	11.00	78000.00	0	1 / 1
2,4,5-TP (Silvex)	UG/KG	1.70	1.700	1.70	63000.00	0	1 / 1
2,4-D	UG/KG	6.40	6.400	6.40	78000.00	0	1 / 1
4,4'-DDE	UG/KG	4.00	4.000	4.00	1900.00	0	1 / 3
4,4'-DDT	UG/KG	0.61	0.610	0.61	1900.00	0	1 / 3
Acetone	UG/KG	11.00	11.000	11.00	780000.00	0	1 / 3
Aluminum	MG/KG	1300.00	2491.666	4500.00	7900.00	0	3 / 3
Chromium	MG/KG	1.10	2.200	4.00	39.00	0	3 / 3
Di-n-butylphthalate	UG/KG	57.00	57.000	57.00	780000.00	0	1 / 3
Dieldrin	UG/KG	0.29	0.290	0.29	40.00	0	1 / 3
Endosulfan I	UG/KG	0.21	0.210	0.21	47000.00	0	1 / 3
Endosulfan sulfate	UG/KG	0.24	0.240	0.24	47000.00	0	1 / 3
Endrin	UG/KG	0.22	0.220	0.22	2300.00	0	1 / 3
Manganese	MG/KG	8.10	12.500	20.90	1092.00	0	3 / 3
Methoxychlor	UG/KG	0.77	0.770	0.77	39000.00	0	1 / 3
Methyl parathion	UG/KG	4.90	4.900	4.90	2000.00	0	1 / 1
Methylene chloride	UG/KG	11.00	13.000	15.00	85000.00	0	2 / 3
OCDD	PG/G	67.55	67.554	67.55	4300.00	0	1 / 1
OCDF	PG/G	12.60	12.600	12.60	4300.00	0	1 / 1
Parathion	UG/KG	5.20	5.200	5.20	47000.00	0	1 / 1
Vanadium	MG/KG	6.30	6.300	6.30	55.00	0	1 / 3
Zinc	MG/KG	3.30	5.900	9.10	2300.00	0	3 / 3

Chemicals Less Than Screening Value for Soil

AOC 511 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.16	0.850	1.40	2700.00	0	5 / 5
4,4'-DDE	UG/KG	0.09	2.496	5.00	1900.00	0	4 / 5
4,4'-DDT	UG/KG	0.55	4.112	7.50	1900.00	0	4 / 5
Acetone	UG/KG	20.00	20.000	20.00	780000.00	0	1 / 5
Aldrin	UG/KG	0.16	0.160	0.16	38.00	0	1 / 5
Aluminum	MG/KG	960.00	3447.000	4730.00	7900.00	0	5 / 5
Chlordane	UG/KG	1.50	2.850	4.20	470.00	0	2 / 5
Chromium	MG/KG	1.40	4.590	6.20	39.00	0	5 / 5
Dieldrin	UG/KG	0.14	0.223	0.38	40.00	0	3 / 5
Dimethoate	UG/KG	6.60	6.600	6.60	1600.00	0	1 / 5
Endosulfan 1	UG/KG	0.08	0.121	0.14	47000.00	0	3 / 5
Endrin	UG/KG	0.13	0.250	0.43	2300.00	0	4 / 5
Endrin aldehyde	UG/KG	0.33	0.330	0.33	2300.00	0	1 / 5
Heptachlor	UG/KG	0.12	0.125	0.12	140.00	0	1 / 5
Heptachlor epoxide	UG/KG	0.19	0.298	0.41	70.00	0	5 / 5
Lead	MG/KG	1.40	10.180	25.40	400.00	0	5 / 5
Manganese	MG/KG	3.80	7.200	10.60	1092.00	0	4 / 5
Methoxychlor	UG/KG	0.42	0.685	0.96	39000.00	0	3 / 5
Methyl parathion	UG/KG	4.30	4.300	4.30	2000.00	0	1 / 1
Methylene chloride	UG/KG	8.00	8.000	8.00	85000.00	0	1 / 5
Phorate	UG/KG	3.70	3.700	3.70	1600.00	0	1 / 1
Vanadium	MG/KG	5.40	5.500	5.60	55.00	0	2 / 5
beta-BHC	UG/KG	0.25	0.325	0.40	350.00	0	2 / 5

Chemicals Less Than Screening Value for Soil

AOC 512 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDE	UG/KG	180.00	180.000	180.00	1900.00	0	1 / 1
4,4'-DDT	UG/KG	8.10	8.100	8.10	1900.00	0	1 / 1
Acetone	UG/KG	61.00	61.000	61.00	780000.00	0	1 / 1
Aluminum	MG/KG	4600.00	4600.000	4600.00	7900.00	0	1 / 1
Barium	MG/KG	58.80	58.800	58.80	550.00	0	1 / 1
Chromium	MG/KG	8.00	8.000	8.00	39.00	0	1 / 1
Chrysene	UG/KG	57.00	57.000	57.00	88000.00	0	1 / 1
Endosulfan II	UG/KG	8.80	8.800	8.80	47000.00	0	1 / 1
Endrin	UG/KG	6.00	6.000	6.00	2300.00	0	1 / 1
Endrin aldehyde	UG/KG	2.20	2.200	2.20	2300.00	0	1 / 1
Fluoranthene	UG/KG	100.00	100.000	100.00	310000.00	0	1 / 1
Manganese	MG/KG	39.20	39.200	39.20	1092.00	0	1 / 1
Methoxychlor	UG/KG	7.50	7.500	7.50	39000.00	0	1 / 1
Phenanthrene	UG/KG	100.00	100.000	100.00	310000.00	0	1 / 1
Pyrene	UG/KG	64.00	64.000	64.00	230000.00	0	1 / 1
Vanadium	MG/KG	9.20	9.200	9.20	55.00	0	1 / 1
Zinc	MG/KG	63.20	63.200	63.20	2300.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC 513 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	0.34	0.344	0.34	430.00	0	1 / 1
1234678-HpCDF	PG/G	8.83	8.831	8.83	430.00	0	1 / 1
123478-HxCDF	PG/G	1.57	1.570	1.57	43.00	0	1 / 1
2,4-D	UG/KG	47.00	47.000	47.00	78000.00	0	1 / 1
4,4'-DDD	UG/KG	0.07	0.201	0.30	2700.00	0	4 / 6
4,4'-DDE	UG/KG	0.05	0.485	1.90	1900.00	0	5 / 6
4,4'-DDT	UG/KG	0.11	0.412	1.20	1900.00	0	6 / 6
4-Bromophenyl-phenylether	UG/KG	96.00	96.000	96.00	450000.00	0	1 / 6
Acetone	UG/KG	6.00	7.750	10.00	780000.00	0	4 / 6
Aluminum	MG/KG	2320.00	3226.666	3900.00	7900.00	0	6 / 6
Chromium	MG/KG	3.50	3.940	4.70	39.00	0	5 / 6
Di-n-butylphthalate	UG/KG	38.00	66.500	100.00	780000.00	0	4 / 6
Dieldrin	UG/KG	0.16	0.262	0.44	40.00	0	5 / 6
Dinoseb	UG/KG	2.30	2.300	2.30	7800.00	0	1 / 1
Disulfoton	UG/KG	5.50	5.500	5.50	310.00	0	1 / 1
Endosulfan I	UG/KG	0.25	0.250	0.25	47000.00	0	1 / 6
Endosulfan II	UG/KG	0.28	0.280	0.28	47000.00	0	1 / 6
Endosulfan sulfate	UG/KG	0.20	0.529	0.92	47000.00	0	6 / 6
Endrin	UG/KG	0.11	0.551	1.20	2300.00	0	6 / 6
Endrin aldehyde	UG/KG	0.24	0.240	0.24	2300.00	0	1 / 6
Heptachlor epoxide	UG/KG	0.14	0.140	0.14	70.00	0	1 / 6
Lead	MG/KG	1.60	2.725	4.00	400.00	0	6 / 6
Manganese	MG/KG	3.50	14.466	23.70	1092.00	0	6 / 6
Methoxychlor	UG/KG	0.57	0.935	1.30	39000.00	0	2 / 6
Methylene chloride	UG/KG	11.00	13.200	15.00	85000.00	0	5 / 6
OCDD	PG/G	0.88	0.884	0.88	4300.00	0	1 / 1
OCDF	PG/G	27.67	27.679	27.67	4300.00	0	1 / 1
Parathion	UG/KG	5.40	5.400	5.40	47000.00	0	1 / 1
Zinc	MG/KG	3.70	4.375	4.90	2300.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 515 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	0.49	0.491	0.49	430.00	0	1 / 1
1234678-HpCDF	PG/G	0.87	0.872	0.87	430.00	0	1 / 1
123789-HxCDF	PG/G	0.54	0.541	0.54	43.00	0	1 / 1
OCDD	PG/G	2.04	2.047	2.04	4300.00	0	1 / 1
OCDF	PG/G	1.59	1.590	1.59	4300.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC 516 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDE	UG/KG	0.28	0.280	0.28	1900.00	0	1 / 2
4,4'-DDT	UG/KG	0.77	0.770	0.77	1900.00	0	1 / 2
Acetone	UG/KG	16.00	16.500	17.00	780000.00	0	2 / 2
Aldrin	UG/KG	0.13	0.135	0.14	38.00	0	2 / 2
Dieldrin	UG/KG	0.48	0.480	0.48	40.00	0	1 / 2
Endosulfan sulfate	UG/KG	0.55	0.550	0.55	47000.00	0	1 / 2
Endrin	UG/KG	0.46	0.695	0.93	2300.00	0	2 / 2
Heptachlor	UG/KG	0.38	0.380	0.38	140.00	0	1 / 2
Heptachlor epoxide	UG/KG	0.25	0.250	0.25	70.00	0	1 / 2
Methoxychlor	UG/KG	0.45	0.450	0.45	39000.00	0	1 / 2
Methylene chloride	UG/KG	10.00	10.000	10.00	85000.00	0	1 / 2
beta-BHC	UG/KG	0.46	0.460	0.46	350.00	0	1 / 2
gamma-BHC (Lindane)	UG/KG	0.30	0.300	0.30	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 517 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	7.30	7.307	7.30	430.00	0	1 / 1
1234678-HpCDF	PG/G	7.63	7.632	7.63	430.00	0	1 / 1
123678-HxCDF	PG/G	0.53	0.535	0.53	43.00	0	1 / 1
123789-HxCDF	PG/G	0.44	0.446	0.44	43.00	0	1 / 1
234678-HxCDF	PG/G	0.25	0.258	0.25	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.41	0.490	0.57	2700.00	0	2 / 5
4,4'-DDE	UG/KG	0.21	0.966	1.70	1900.00	0	3 / 5
4,4'-DDT	UG/KG	0.39	0.560	0.73	1900.00	0	2 / 5
Aldrin	UG/KG	0.11	0.110	0.11	38.00	0	1 / 5
Aluminum	MG/KG	4150.00	4999.000	5880.00	7900.00	0	5 / 5
Aroclor-1260	UG/KG	9.70	9.700	9.70	83.00	0	1 / 5
Butylbenzylphthalate	UG/KG	180.00	180.000	180.00	******.**	0	1 / 5
Chromium	MG/KG	4.70	5.190	5.60	39.00	0	5 / 5
Di-n-butylphthalate	UG/KG	39.00	78.100	110.00	780000.00	0	5 / 5
Dieldrin	UG/KG	0.34	0.345	0.34	40.00	0	1 / 5
Endosulfan I	UG/KG	0.20	0.290	0.36	47000.00	0	3 / 5
Endosulfan II	UG/KG	0.30	0.300	0.30	47000.00	0	1 / 5
Endrin	UG/KG	0.85	0.850	0.85	2300.00	0	1 / 5
Endrin aldehyde	UG/KG	0.32	0.325	0.32	2300.00	0	1 / 5
Heptachlor	UG/KG	0.17	0.170	0.17	140.00	0	1 / 5
Heptachlor epoxide	UG/KG	0.26	0.260	0.26	70.00	0	1 / 5
Manganese	MG/KG	4.20	13.060	22.40	1092.00	0	5 / 5
Methoxychlor	UG/KG	0.51	0.510	0.51	39000.00	0	1 / 5
Methylene chloride	UG/KG	11.00	12.000	13.00	85000.00	0	3 / 5
OCDD	PG/G	92.44	92.445	92.44	4300.00	0	1 / 1
OCDF	PG/G	14.37	14.373	14.37	4300.00	0	1 / 1
beta-BHC	UG/KG	0.34	0.340	0.34	350.00	0	1 / 5
bis(2-Ethylhexyl)phthalate	UG/KG	133.50	133.500	133.50	46000.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC 518 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.46	3.256	8.70	2700.00	0	3 / 5
4,4'-DDE	UG/KG	0.23	1.333	3.50	1900.00	0	3 / 5
4,4'-DDT	UG/KG	2.50	2.850	3.20	1900.00	0	2 / 5
Acetone	UG/KG	10.00	26.800	48.00	780000.00	0	5 / 5
Aldrin	UG/KG	0.10	0.436	1.60	38.00	0	5 / 5
Copper	MG/KG	4.00	4.000	4.00	290.00	0	1 / 5
Di-n-butylphthalate	UG/KG	40.00	40.000	40.00	780000.00	0	1 / 5
Dieldrin	UG/KG	0.57	0.570	0.57	40.00	0	1 / 5
Endosulfan I	UG/KG	1.70	1.700	1.70	47000.00	0	1 / 5
Endosulfan II	UG/KG	0.49	0.490	0.49	47000.00	0	1 / 5
Endosulfan sulfate	UG/KG	0.18	0.940	1.70	47000.00	0	2 / 5
Endrin	UG/KG	0.20	0.590	0.98	2300.00	0	2 / 5
Endrin aldehyde	UG/KG	0.27	0.310	0.35	2300.00	0	2 / 5
Heptachlor	UG/KG	1.30	1.300	1.30	140.00	0	1 / 5
Heptachlor epoxide	UG/KG	0.11	0.333	0.77	70.00	0	3 / 5
Methoxychlor	UG/KG	0.58	0.580	0.58	39000.00	0	1 / 5
Methylene chloride	UG/KG	9.00	12.750	15.00	85000.00	0	4 / 5
beta-BHC	UG/KG	0.31	0.325	0.34	350.00	0	2 / 5
delta-BHC	UG/KG	1.30	1.300	1.30	490.00	0	1 / 5
gamma-BHC (Lindane)	UG/KG	0.58	0.580	0.58	490.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC 520 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	1.00	1.002	1.00	430.00	0	1 / 1
1234678-HpCDF	PG/G	1.22	1.221	1.22	430.00	0	1 / 1
123678-HxCDF	PG/G	0.25	0.254	0.25	43.00	0	1 / 1
2,4-D	UG/KG	15.00	15.000	15.00	78000.00	0	1 / 1
4,4'-DDD	UG/KG	0.06	4.349	12.00	2700.00	0	3 / 6
4,4'-DDE	UG/KG	0.09	0.203	0.28	1900.00	0	3 / 6
4,4'-DDT	UG/KG	0.25	2.288	8.20	1900.00	0	4 / 6
Acetone	UG/KG	7.00	24.083	59.00	780000.00	0	6 / 6
Aldrin	UG/KG	0.03	0.500	0.84	38.00	0	3 / 6
Aluminum	MG/KG	2050.00	2875.000	3960.00	7900.00	0	4 / 6
Chromium	MG/KG	2.40	3.375	4.30	39.00	0	4 / 6
Cobalt	MG/KG	6.60	6.600	6.60	470.00	0	1 / 6
Di-n-butylphthalate	UG/KG	91.00	91.000	91.00	780000.00	0	1 / 6
Dieldrin	UG/KG	0.01	0.250	0.63	40.00	0	3 / 6
Endosulfan I	UG/KG	0.00	0.133	0.30	47000.00	0	3 / 6
Endosulfan II	UG/KG	0.33	2.258	4.30	47000.00	0	6 / 6
Endosulfan sulfate	UG/KG	0.25	0.801	1.70	47000.00	0	4 / 6
Endrin	UG/KG	0.04	0.753	2.10	2300.00	0	3 / 6
Endrin aldehyde	UG/KG	0.44	0.440	0.44	2300.00	0	1 / 6
Heptachlor	UG/KG	0.02	1.089	3.00	140.00	0	3 / 6
Heptachlor epoxide	UG/KG	0.19	0.785	1.60	70.00	0	4 / 6
Lead	MG/KG	1.80	2.050	2.60	400.00	0	4 / 6

Chemicals Less Than Screening Value for Soil

AOC 520 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Manganese	MG/KG	6.60	8.425	9.60	1092.00	0	4 / 6
Methoxychlor	UG/KG	0.34	5.508	14.00	39000.00	0	5 / 6
Methylene chloride	UG/KG	7.00	9.600	13.00	85000.00	0	5 / 6
OCDD	PG/G	4.38	4.380	4.38	4300.00	0	1 / 1
OCDF	PG/G	2.32	2.322	2.32	4300.00	0	1 / 1
Zinc	MG/KG	2.40	2.725	2.90	2300.00	0	4 / 6
beta-BHC	UG/KG	0.38	0.543	0.85	350.00	0	3 / 6
delta-BHC	UG/KG	0.00	0.509	1.70	490.00	0	4 / 6
gamma-BHC (Lindane)	UG/KG	0.03	0.085	0.19	490.00	0	3 / 6

Chemicals Less Than Screening Value for Soil

AOC 523 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	1.72	1.728	1.72	430.00	0	1 / 1
1234678-HpCDF	PG/G	3.59	3.591	3.59	430.00	0	1 / 1
123789-HxCDF	PG/G	0.64	0.643	0.64	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.15	0.170	0.19	2700.00	0	2 / 2
4,4'-DDT	UG/KG	0.41	0.410	0.41	1900.00	0	1 / 2
Acetone	UG/KG	13.00	15.250	17.50	780000.00	0	2 / 2
Aluminum	MG/KG	1300.00	3725.000	6150.00	7900.00	0	2 / 2
Chromium	MG/KG	3.80	4.000	4.20	39.00	0	2 / 2
Di-n-butylphthalate	UG/KG	50.00	50.000	50.00	780000.00	0	1 / 2
Dieldrin	UG/KG	0.11	0.117	0.12	40.00	0	2 / 2
Endosulfan I	UG/KG	0.12	0.123	0.12	47000.00	0	1 / 2
Endosulfan II	UG/KG	0.46	0.460	0.46	47000.00	0	1 / 2
Endosulfan sulfate	UG/KG	0.09	0.147	0.20	47000.00	0	2 / 2
Endrin	UG/KG	0.27	0.422	0.57	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.10	0.255	0.41	2300.00	0	2 / 2
Heptachlor	UG/KG	0.05	0.058	0.05	140.00	0	1 / 2
Heptachlor epoxide	UG/KG	0.04	0.084	0.12	70.00	0	2 / 2
Manganese	MG/KG	6.30	9.100	11.90	1092.00	0	2 / 2
Methoxychlor	UG/KG	0.35	0.457	0.56	39000.00	0	2 / 2
Methylene chloride	UG/KG	13.00	15.000	17.00	85000.00	0	2 / 2
OCDD	PG/G	12.06	12.067	12.06	4300.00	0	1 / 1
OCDF	PG/G	8.56	8.565	8.56	4300.00	0	1 / 1
Sulfotepp	UG/KG	2.20	2.200	2.20	3900.00	0	1 / 1
alpha-BHC	UG/KG	0.00	0.007	0.00	100.00	0	2 / 2
beta-BHC	UG/KG	0.16	0.160	0.16	350.00	0	1 / 2
delta-BHC	UG/KG	0.04	0.069	0.09	490.00	0	2 / 2
gamma-BHC (Lindane)	UG/KG	0.02	0.027	0.02	490.00	0	2 / 2

Chemicals Less Than Screening Value for Soil

AOC GRB Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Barium	MG/KG	37.90	37.900	37.90	550.00	0	1 / 1
Copper	MG/KG	5.50	5.500	5.50	290.00	0	1 / 1
Lead	MG/KG	15.40	15.400	15.40	400.00	0	1 / 1
Manganese	MG/KG	35.30	35.300	35.30	1092.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	1.77	1.777	1.77	430.00	0	1 / 1
1234678-HpCDF	PG/G	3.29	3.299	3.29	430.00	0	1 / 1
123478-HxCDF	PG/G	0.45	0.459	0.45	43.00	0	1 / 1
1234789-HpCDF	PG/G	0.19	0.194	0.19	43.00	0	1 / 1
123678-HxCDF	PG/G	0.40	0.408	0.40	43.00	0	1 / 1
2,4,5-T	UG/KG	3.90	3.900	3.90	78000.00	0	1 / 2
2,4,5-TP (Silvex)	UG/KG	11.00	11.000	11.00	63000.00	0	1 / 2
234678-HxCDF	PG/G	0.31	0.314	0.31	43.00	0	1 / 1
4,4'-DDD	UG/KG	0.50	20.046	59.00	2700.00	0	3 / 5
4,4'-DDE	UG/KG	0.06	35.116	110.00	1900.00	0	4 / 5
4,4'-DDT	UG/KG	0.29	12.645	25.00	1900.00	0	2 / 5
Acetone	UG/KG	29.00	30.666	32.00	780000.00	0	3 / 5
Aldrin	UG/KG	0.31	0.936	2.10	38.00	0	3 / 5
Barium	MG/KG	33.95	33.950	33.95	550.00	0	1 / 27
Benzo(a)anthracene	UG/KG	140.00	140.000	140.00	880.00	0	1 / 5
Chromium	MG/KG	3.10	12.644	34.20	39.00	0	9 / 27
Chrysene	UG/KG	96.00	96.000	96.00	88000.00	0	1 / 5
Copper	MG/KG	3.70	8.866	17.50	290.00	0	3 / 27
Dieldrin	UG/KG	0.85	0.850	0.85	40.00	0	1 / 5
Endosulfan I	UG/KG	0.05	0.776	2.10	47000.00	0	3 / 5
Endosulfan II	UG/KG	0.60	0.600	0.60	47000.00	0	1 / 5
Endosulfan sulfate	UG/KG	0.28	0.633	0.91	47000.00	0	3 / 5
Endrin	UG/KG	0.20	0.800	1.40	2300.00	0	2 / 5
Endrin aldehyde	UG/KG	0.71	0.790	0.87	2300.00	0	2 / 5
Fluoranthene	UG/KG	180.00	180.000	180.00	310000.00	0	1 / 5
Heptachlor	UG/KG	0.06	0.317	0.80	140.00	0	3 / 5
Heptachlor epoxide	UG/KG	3.90	3.900	3.90	70.00	0	1 / 5
Lead	MG/KG	2.40	16.977	57.40	400.00	0	9 / 27
Manganese	MG/KG	5.10	27.566	42.30	1092.00	0	3 / 27
Methoxychlor	UG/KG	0.30	1.966	3.60	39000.00	0	3 / 5
Methylene chloride	UG/KG	10.00	13.333	15.00	85000.00	0	3 / 5
Nickel	MG/KG	7.40	7.400	7.40	160.00	0	1 / 27
OCDD	PG/G	12.16	12.165	12.16	4300.00	0	1 / 1
OCDF	PG/G	3.64	3.645	3.64	4300.00	0	1 / 1
Phenanthrene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 5
Pyrene	UG/KG	270.00	270.000	270.00	230000.00	0	1 / 5
Toluene	UG/KG	1.00	1.000	1.00	******.**	0	1 / 5
Vanadium	MG/KG	5.20	17.850	51.20	55.00	0	8 / 27

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Zinc	MG/KG	3.60	31.362	86.90	2300.00	0	8 / 27
alpha-BHC	UG/KG	0.23	0.230	0.23	100.00	0	1 / 5
beta-BHC	UG/KG	0.37	0.485	0.60	350.00	0	2 / 5
bis(2-Ethylhexyl)phthalate	UG/KG	170.00	170.000	170.00	46000.00	0	1 / 5
delta-BHC	UG/KG	0.90	0.900	0.90	490.00	0	1 / 5
gamma-BHC (Lindane)	UG/KG	1.40	1.400	1.40	490.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 81

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	1850.00	1850.000	1850.00	7900.00	0	1 / 1
Chromium	MG/KG	7.00	7.000	7.00	39.00	0	1 / 1
Copper	MG/KG	12.60	12.600	12.60	290.00	0	1 / 1
Lead	MG/KG	121.00	121.000	121.00	400.00	0	1 / 1
Manganese	MG/KG	39.10	39.100	39.10	1092.00	0	1 / 1
Vanadium	MG/KG	7.80	7.800	7.80	55.00	0	1 / 1
Zinc	MG/KG	123.00	123.000	123.00	2300.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 82

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	2180.00	2180.000	2180.00	7900.00	0	1 / 1
Chromium	MG/KG	2.90	2.900	2.90	39.00	0	1 / 1
Lead	MG/KG	2.50	2.500	2.50	400.00	0	1 / 1
Manganese	MG/KG	8.50	8.500	8.50	1092.00	0	1 / 1
Zinc	MG/KG	2.40	2.400	2.40	2300.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

SWMU 047 Sampling Unit: 99

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	2670.00	2670.000	2670.00	7900.00	0	1 / 1
Lead	MG/KG	2.10	2.100	2.10	400.00	0	1 / 1
Manganese	MG/KG	11.50	11.500	11.50	1092.00	0	1 / 1

Chemicals Of Potential Concern for Soil

SWMU 044 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	1240.00	6879.375	17500.00	7900.00	7	8 / 8
Arsenic	MG/KG	40.60	40.600	40.60	0.37	1	1 / 8
Benzo(a)pyrene	UG/KG	500.00	500.000	500.00	88.00	1	1 / 1

Chemicals Of Potential Concern for Soil

SWMU 047 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	3450.00	5915.909	13900.00	7900.00	7	11 / 11
Benzo(a)pyrene	UG/KG	84.00	985.666	4600.00	88.00	6	6 / 11
Dibenzo(a,h)anthracene	UG/KG	1000.00	1000.000	1000.00	88.00	1	1 / 11
Indeno(1,2,3-cd)pyrene	UG/KG	110.00	792.000	3200.00	880.00	5	5 / 11

Chemicals Of Potential Concern for Soil

AOC 508 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDT	UG/KG	56.00	695.200	2700.00	1900.00	5	5 / 6
Arsenic	MG/KG	1.20	2.300	4.30	0.37	6	6 / 6
Benzo(a)anthracene	UG/KG	41.00	455.750	910.00	880.00	4	4 / 6
Benzo(a)pyrene	UG/KG	45.00	522.250	1100.00	88.00	4	4 / 6
Dibenzo(a,h)anthracene	UG/KG	90.50	105.250	120.00	88.00	2	2 / 6
Lead	MG/KG	13.80	241.316	767.50	400.00	5	6 / 6

Chemicals Of Potential Concern for Soil

AOC 510 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	1.70	1.850	2.00	0.37	2	2 / 3
Benzo(a)pyrene	UG/KG	190.00	310.000	430.00	88.00	2	2 / 3

Chemicals Of Potential Concern for Soil

AOC 511 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	1.20	2.566	4.10	0.37	3	3 / 6
Lead	MG/KG	29.40	197.516	670.00	400.00	6	6 / 6

Chemicals Of Potential Concern for Soil

AOC 512 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	5250.00	7108.333	10600.00	7900.00	6	6 / 6
Arsenic	MG/KG	2.50	5.116	8.20	0.37	6	6 / 6
Benzo(a)pyrene	UG/KG	60.00	82.700	110.00	88.00	5	5 / 6

Chemicals Of Potential Concern for Soil

AOC 516 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Benzo(a)pyrene	UG/KG	110.00	110.000	110.00	88.00	1	1 / 2

Chemicals Of Potential Concern for Soil

AOC 518 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Benzo(a)pyrene	UG/KG	69.00	109.500	150.00	88.00	2	2 / 5
Chlordane	UG/KG	7400.00	7400.000	7400.00	470.00	1	1 / 5

Chemicals Of Potential Concern for Soil

AOC 520 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Chlordane	UG/KG	540.00	540.000	540.00	470.00	1	1 / 6

Chemicals Of Potential Concern for Soil

AOC 523 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Chromium	MG/KG	5.00	32.100	59.20	39.00	1	2 / 2

Chemicals Of Potential Concern for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDE	UG/KG	2.80	677.700	4000.00	1900.00	6	6 / 10
4,4'-DDT	UG/KG	0.77	493.025	3900.00	1900.00	8	8 / 10
Aluminum	MG/KG	2110.00	4870.000	9720.00	7900.00	16	25 / 36
Aroclor-1260	UG/KG	14.00	102.000	190.00	83.00	2	2 / 10
Arsenic	MG/KG	1.50	8.410	39.40	0.37	10	10 / 36
Benzo(a)pyrene	UG/KG	66.00	184.200	330.00	88.00	5	5 / 10
Dieldrin	UG/KG	0.09	8.914	51.00	40.00	6	6 / 10

Chemicals Of Potential Concern for Soil

SWMU 044 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	28900.00	28900.000	28900.00	7900.00	1	1 / 1
Vanadium	MG/KG	71.70	71.700	71.70	55.00	1	1 / 1

Chemicals Of Potential Concern for Soil

SWMU 047 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	1030.00	6806.666	22300.00	7900.00	6	9 / 9
Benzo(a)pyrene	UG/KG	240.00	240.000	240.00	88.00	1	1 / 9
Beryllium	MG/KG	1.10	1.100	1.10	0.15	1	1 / 9
Vanadium	MG/KG	17.20	33.233	64.30	55.00	1	3 / 9

Chemicals Of Potential Concern for Soil

AOC 512 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aroclor-1260	UG/KG	220.00	220.000	220.00	83.00	1	1 / 1
Arsenic	MG/KG	2.40	2.400	2.40	0.37	1	1 / 1

Chemicals Of Potential Concern for Soil

AOC 518 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Chlordane	UG/KG	1800.00	1800.000	1800.00	470.00	1	1 / 5

Chemicals Of Potential Concern for Soil

AOC GRB Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	9340.00	9340.000	9340.00	7900.00	1	1 / 1

Chemicals Of Potential Concern for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	1450.00	5763.684	17300.00	7900.00	11	19 / 27
Arsenic	MG/KG	1.90	3.650	5.40	0.37	2	2 / 27
Benzo(a)pyrene	UG/KG	120.00	120.000	120.00	88.00	1	1 / 5
Mercury	MG/KG	0.26	4.380	8.50	2.30	1	2 / 27

Chemicals With No Screening Value for Soil

SWMU 044 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	12100.00	12100.000	12100.00	0.00	0	1 / 8
Magnesium	MG/KG	692.00	1643.333	3795.00	0.00	0	6 / 8
Potassium	MG/KG	672.00	2825.250	8610.00	0.00	0	4 / 8
Sodium	MG/KG	1120.00	1830.000	3240.00	0.00	0	3 / 8

Chemicals With No Screening Value for Soil

SWMU 047 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	12700.00	12700.000	12700.00	0.00	0	1 / 11
Iron	MG/KG	924.00	3716.272	12100.00	0.00	0	11 / 11
Magnesium	MG/KG	911.00	1810.500	2710.00	0.00	0	2 / 11
Methapyrilene	UG/KG	48.00	48.000	48.00	0.00	0	1 / 11
Potassium	MG/KG	1010.00	1010.000	1010.00	0.00	0	1 / 11
Sodium	MG/KG	1000.00	1000.000	1000.00	0.00	0	1 / 11

Chemicals With No Screening Value for Soil

AOC 508 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	639.00	2889.833	7990.00	0.00	0	6 / 6
Iron	MG/KG	1460.00	4776.666	11700.00	0.00	0	6 / 6
Magnesium	MG/KG	726.00	726.000	726.00	0.00	0	1 / 6

Chemicals With No Screening Value for Soil

AOC 510 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	3160.00	3446.666	3800.00	0.00	0	3 / 3

Chemicals With No Screening Value for Soil

AOC 511 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	758.00	801.333	881.00	0.00	0	3 / 6
Iron	MG/KG	1900.00	2726.666	3710.00	0.00	0	6 / 6
Safrole	UG/KG	200.00	200.000	200.00	0.00	0	1 / 6

Chemicals With No Screening Value for Soil

AOC 512 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	4895.00	8527.500	11800.00	0.00	0	6 / 6
Magnesium	MG/KG	837.00	1841.400	2530.00	0.00	0	5 / 6
Potassium	MG/KG	726.00	990.500	1350.00	0.00	0	4 / 6

Chemicals With No Screening Value for Soil

AOC 513 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	667.00	1073.500	1480.00	0.00	0	2 / 6
Iron	MG/KG	2270.00	2441.666	2590.00	0.00	0	6 / 6

Chemicals With No Screening Value for Soil

AOC 517 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	1270.00	6416.666	9770.00	0.00	0	3 / 5
Iron	MG/KG	1760.00	2416.000	3040.00	0.00	0	5 / 5

Chemicals With No Screening Value for Soil

AOC 518 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	630.00	630.000	630.00	0.00	0	1 / 5
Famphur	UG/KG	7.30	7.300	7.30	0.00	0	1 / 5
Iron	MG/KG	2600.00	2600.000	2600.00	0.00	0	1 / 5

Chemicals With No Screening Value for Soil

AOC 520 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	1680.00	3253.333	6250.00	0.00	0	3 / 6
Iron	MG/KG	1920.00	1983.333	2090.00	0.00	0	3 / 6

Chemicals With No Screening Value for Soil

AOC 523 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	2450.00	3150.000	3850.00	0.00	0	2 / 2
Iron	MG/KG	2570.00	3045.000	3520.00	0.00	0	2 / 2
Magnesium	MG/KG	1460.00	1460.000	1460.00	0.00	0	1 / 2

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	16400.00	30533.333	50100.00	0.00	0	3 / 36
Famphur	UG/KG	6.30	6.300	6.30	0.00	0	1 / 10
Iron	MG/KG	1440.00	3612.105	6210.00	0.00	0	19 / 36
Magnesium	MG/KG	555.00	1195.300	2390.00	0.00	0	10 / 36
Potassium	MG/KG	621.00	746.000	836.00	0.00	0	4 / 36
Sodium	MG/KG	729.00	729.000	729.00	0.00	0	1 / 36

Chemicals With No Screening Value for Soil

SWMU 044 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Magnesium	MG/KG	4170.00	4170.000	4170.00	0.00	0	1 / 1
Potassium	MG/KG	2660.00	2660.000	2660.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

SWMU 047 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	1120.00	1120.000	1120.00	0.00	0	1 / 9
Iron	MG/KG	678.00	5546.444	28400.00	0.00	0	9 / 9
Magnesium	MG/KG	1090.00	2950.000	4630.00	0.00	0	3 / 9
Potassium	MG/KG	918.00	1519.000	2120.00	0.00	0	2 / 9
Sodium	MG/KG	1020.00	1020.000	1020.00	0.00	0	1 / 9

Chemicals With No Screening Value for Soil

AOC 508 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	532.00	532.000	532.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

AOC 510 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	1170.00	1991.666	3320.00	0.00	0	3 / 3

Chemicals With No Screening Value for Soil

AOC 511 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Famphur	UG/KG	4.70	4.700	4.70	0.00	0	1 / 5
Iron	MG/KG	577.00	1909.400	2490.00	0.00	0	5 / 5

Chemicals With No Screening Value for Soil

AOC 512 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	3240.00	3240.000	3240.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

AOC 513 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	1100.00	2415.000	3210.00	0.00	0	6 / 6

Chemicals With No Screening Value for Soil

AOC 517 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	3170.00	8570.000	13970.00	0.00	0	2 / 5
Iron	MG/KG	727.00	1608.200	2640.00	0.00	0	5 / 5

Chemicals With No Screening Value for Soil

AOC 520 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	952.00	1206.000	1460.00	0.00	0	2 / 6
Iron	MG/KG	786.00	1016.500	1180.00	0.00	0	4 / 6

Chemicals With No Screening Value for Soil

AOC 523 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Famphur	UG/KG	10.00	10.000	10.00	0.00	0	1 / 2
Iron	MG/KG	1135.00	1177.500	1220.00	0.00	0	2 / 2

Chemicals With No Screening Value for Soil

AOC GRB Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	3040.00	3040.000	3040.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	2490.00	2490.000	2490.00	0.00	0	1 / 27
Famphur	UG/KG	4.40	4.400	4.40	0.00	0	1 / 5
Iron	MG/KG	732.00	2325.153	4700.00	0.00	0	13 / 27
Magnesium	MG/KG	896.00	1482.000	2480.00	0.00	0	3 / 27
Potassium	MG/KG	1690.00	1930.000	2170.00	0.00	0	2 / 27

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 81

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Calcium	MG/KG	13300.00	13300.000	13300.00	0.00	0	1 / 1
Iron	MG/KG	2400.00	2400.000	2400.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 82

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	1640.00	1640.000	1640.00	0.00	0	1 / 1

Chemicals With No Screening Value for Soil

SWMU 047 Sampling Unit: 99

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	1630.00	1630.000	1630.00	0.00	0	1 / 1

Sampling Unit	=	Depth Interval
01	=	0-1 foot
02	=	3-5 feet

Chemicals Less Than Screening Value for Soil

SWMU 012 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	11.29	12.117	12.93	430.00	0	2 / 2
1234678-HpCDF	PG/G	2.11	2.112	2.11	430.00	0	1 / 2
2-Butanone (MEK)	UG/KG	11.00	12.000	13.00	4700000.00	0	2 / 12
4,4'-DDD	UG/KG	0.36	1.402	4.70	2700.00	0	9 / 12
4,4'-DDE	UG/KG	0.16	0.533	1.40	1900.00	0	7 / 12
4,4'-DDT	UG/KG	0.35	0.958	1.40	1900.00	0	7 / 12
Acetone	UG/KG	9.00	34.166	67.00	780000.00	0	9 / 12
Aldrin	UG/KG	0.12	0.351	0.71	38.00	0	6 / 12
Benzo(a)anthracene	UG/KG	60.00	60.000	60.00	880.00	0	1 / 12
Benzo(b)fluoranthene	UG/KG	90.00	90.000	90.00	880.00	0	1 / 12
Benzo(k)fluoranthene	UG/KG	110.00	110.000	110.00	8800.00	0	1 / 12
Chrysene	UG/KG	65.00	74.500	84.00	88000.00	0	2 / 12
Copper	MG/KG	10.60	15.187	27.70	290.00	0	12 / 12
Dieldrin	UG/KG	0.16	0.869	2.20	40.00	0	7 / 12
Endosulfan I	UG/KG	0.06	0.447	0.71	47000.00	0	5 / 12
Endosulfan II	UG/KG	0.17	2.077	6.55	47000.00	0	4 / 12
Endosulfan sulfate	UG/KG	0.13	0.640	0.98	47000.00	0	3 / 12
Endrin	UG/KG	0.20	0.520	0.82	2300.00	0	5 / 12
Endrin aldehyde	UG/KG	0.31	1.077	1.80	2300.00	0	4 / 12
Fluoranthene	UG/KG	76.00	77.500	79.00	310000.00	0	2 / 12
Heptachlor	UG/KG	0.10	1.116	3.60	140.00	0	6 / 12
Heptachlor epoxide	UG/KG	0.49	0.490	0.49	70.00	0	1 / 12
Lead	MG/KG	1.80	8.016	19.30	400.00	0	12 / 12
Methoxychlor	UG/KG	0.91	2.318	6.50	39000.00	0	7 / 12
Methylene chloride	UG/KG	13.00	17.666	20.00	85000.00	0	3 / 12
OCDD	PG/G	117.69	150.062	182.43	4300.00	0	2 / 2
OCDF	PG/G	3.98	4.357	4.72	4300.00	0	2 / 2
Pyrene	UG/KG	60.00	60.000	60.00	230000.00	0	2 / 12
Selenium	MG/KG	0.99	1.424	1.80	39.00	0	12 / 12
Toluene	UG/KG	2.00	8.833	27.00	1600000.00	0	9 / 12
Vanadium	MG/KG	12.90	21.233	34.90	55.00	0	12 / 12
beta-BHC	UG/KG	0.19	0.520	0.87	350.00	0	3 / 12
delta-BHC	UG/KG	0.17	0.570	0.88	490.00	0	3 / 12
gamma-BHC (Lindane)	UG/KG	0.56	0.560	0.56	490.00	0	1 / 12

Chemicals Less Than Screening Value for Soil

AOC 671 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	11.25	16.616	21.97	430.00	0	2 / 2
1234678-HpCDF	PG/G	8.34	8.344	8.34	430.00	0	1 / 2
123478-HxCDF	PG/G	3.49	3.498	3.49	43.00	0	1 / 2
123789-HxCDD	PG/G	2.41	2.412	2.41	43.00	0	1 / 2
2-Methylnaphthalene	UG/KG	58.00	58.000	58.00	310000.00	0	1 / 8
234678-HxCDF	PG/G	1.86	1.869	1.86	43.00	0	1 / 2
4,4'-DDD	UG/KG	0.16	5.585	17.00	2700.00	0	4 / 8
4,4'-DDE	UG/KG	1.60	179.685	490.00	1900.00	0	7 / 8
4,4'-DDT	UG/KG	0.52	2.648	8.08	1900.00	0	5 / 8
Acenaphthene	UG/KG	975.00	975.000	975.00	470000.00	0	1 / 8
Acetone	UG/KG	21.00	29.375	37.50	780000.00	0	4 / 8
Acetonitrile	UG/KG	130.00	130.000	130.00	47000.00	0	1 / 8
Aldrin	UG/KG	0.09	0.393	0.99	38.00	0	3 / 8
Anthracene	UG/KG	3020.00	3020.000	3020.00	2300000.00	0	1 / 8
Benzo(g,h,i)perylene	UG/KG	235.00	235.000	235.00	310000.00	0	1 / 8
Chromium	MG/KG	10.60	15.437	20.55	39.00	0	4 / 8
Chrysene	UG/KG	1305.00	1305.000	1305.00	88000.00	0	1 / 8
Copper	MG/KG	4.10	13.335	33.95	290.00	0	7 / 8
Di-n-butylphthalate	UG/KG	98.00	142.000	230.00	780000.00	0	4 / 8
Dibenzo(a,h)anthracene	UG/KG	70.00	70.000	70.00	88.00	0	1 / 8
Dibenzofuran	UG/KG	1225.00	1225.000	1225.00	31000.00	0	1 / 8
Dieldrin	UG/KG	0.15	0.330	0.51	40.00	0	2 / 8
Endosulfan I	UG/KG	0.28	0.715	1.30	47000.00	0	6 / 8
Endosulfan II	UG/KG	0.14	0.410	0.85	47000.00	0	5 / 8
Endosulfan sulfate	UG/KG	0.39	0.445	0.50	47000.00	0	2 / 8
Endrin	UG/KG	0.15	1.321	3.90	2300.00	0	7 / 8
Endrin aldehyde	UG/KG	0.30	0.941	2.50	2300.00	0	6 / 8
Fluoranthene	UG/KG	38.00	1167.666	3400.00	310000.00	0	3 / 8
Fluorene	UG/KG	2160.00	2160.000	2160.00	310000.00	0	1 / 8
Heptachlor	UG/KG	0.08	0.127	0.17	140.00	0	2 / 8
Heptachlor epoxide	UG/KG	0.13	0.525	0.92	70.00	0	2 / 8
Indeno(1,2,3-cd)pyrene	UG/KG	260.00	260.000	260.00	880.00	0	1 / 8
Lead	MG/KG	28.30	28.300	28.30	400.00	0	1 / 8
Manganese	MG/KG	84.50	84.500	84.50	1092.00	0	1 / 8
Mercury	MG/KG	0.26	0.260	0.26	2.30	0	1 / 8
Methoxychlor	UG/KG	0.15	1.665	3.00	39000.00	0	6 / 8
Methylene chloride	UG/KG	4.00	8.571	12.00	85000.00	0	7 / 8
Naphthalene	UG/KG	59.00	59.000	59.00	310000.00	0	1 / 8
Nickel	MG/KG	5.80	6.537	7.20	160.00	0	4 / 8
OCDD	PG/G	83.03	170.948	258.86	4300.00	0	2 / 2
OCDF	PG/G	2.85	7.399	11.94	4300.00	0	2 / 2
Phenanthrene	UG/KG	4800.00	4800.000	4800.00	310000.00	0	1 / 8
Pyrene	UG/KG	57.00	2178.500	4300.00	230000.00	0	2 / 8
Tin	MG/KG	9.50	9.500	9.50	4700.00	0	1 / 8
Toluene	UG/KG	2.00	4.187	13.00	1600000.00	0	8 / 8
Vanadium	MG/KG	8.10	13.733	17.80	55.00	0	3 / 8
alpha-BHC	UG/KG	0.22	0.220	0.22	100.00	0	1 / 8
beta-BHC	UG/KG	0.64	10.320	20.00	350.00	0	2 / 8
delta-BHC	UG/KG	0.25	0.250	0.25	490.00	0	1 / 8
gamma-BHC (Lindane)	UG/KG	0.54	0.540	0.54	490.00	0	1 / 8

Chemicals Less Than Screening Value for Soil

AOC 672 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.42	1.110	1.80	2700.00	0	2 / 4
4,4'-DDE	UG/KG	21.00	53.333	88.00	1900.00	0	3 / 4
4,4'-DDT	UG/KG	23.00	23.000	23.00	1900.00	0	1 / 4
Acetone	UG/KG	100.00	100.000	100.00	780000.00	0	1 / 4
Aldrin	UG/KG	0.21	0.270	0.33	38.00	0	2 / 4
Chromium	MG/KG	25.20	25.200	25.20	39.00	0	1 / 4
Copper	MG/KG	12.00	12.000	12.00	290.00	0	1 / 4
Di-n-butylphthalate	UG/KG	86.00	131.750	240.00	780000.00	0	4 / 4
Endosulfan I	UG/KG	0.20	0.360	0.69	47000.00	0	4 / 4
Endosulfan II	UG/KG	0.42	1.596	3.90	47000.00	0	3 / 4
Endrin	UG/KG	0.39	0.655	1.20	2300.00	0	4 / 4
Endrin aldehyde	UG/KG	0.36	0.550	0.74	2300.00	0	2 / 4
Heptachlor	UG/KG	0.13	0.327	0.51	140.00	0	4 / 4
Heptachlor epoxide	UG/KG	0.36	0.830	1.30	70.00	0	2 / 4
Mercury	MG/KG	0.18	0.180	0.18	2.30	0	1 / 4
Methoxychlor	UG/KG	1.90	3.033	4.80	39000.00	0	3 / 4
Methylene chloride	UG/KG	5.00	13.250	23.00	85000.00	0	4 / 4
Pyrene	UG/KG	61.00	61.000	61.00	230000.00	0	1 / 4
Toluene	UG/KG	10.00	18.000	23.00	1600000.00	0	3 / 4
Vanadium	MG/KG	20.40	20.400	20.40	55.00	0	1 / 4
alpha-BHC	UG/KG	0.16	0.160	0.16	100.00	0	1 / 4
beta-BHC	UG/KG	0.69	0.705	0.72	350.00	0	2 / 4
bis(2-Ethylhexyl)phthalate	UG/KG	240.00	240.000	240.00	46000.00	0	1 / 4
delta-BHC	UG/KG	0.21	0.210	0.21	490.00	0	1 / 4
gamma-BHC (Lindane)	UG/KG	0.26	0.260	0.26	490.00	0	1 / 4

Chemicals Less Than Screening Value for Soil

AOC 673 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
2,4,5-T	UG/KG	0.94	3.670	6.40	78000.00	0	2 / 2
2,4-D	UG/KG	19.00	19.000	19.00	78000.00	0	1 / 2
4,4'-DDD	UG/KG	0.69	10.258	28.00	2700.00	0	5 / 6
4,4'-DDE	UG/KG	5.40	66.483	210.00	1900.00	0	6 / 6
4,4'-DDT	UG/KG	1.46	48.293	220.00	1900.00	0	6 / 6
Acetone	UG/KG	52.00	110.375	150.00	780000.00	0	4 / 6
Aldrin	UG/KG	0.10	0.350	0.58	38.00	0	6 / 6
Chromium	MG/KG	23.60	23.600	23.60	39.00	0	1 / 6
Copper	MG/KG	6.20	6.200	6.20	290.00	0	1 / 6
Di-n-butylphthalate	UG/KG	66.00	71.000	76.00	780000.00	0	2 / 6
Dieldrin	UG/KG	0.21	0.317	0.46	40.00	0	4 / 6
Dimethoate	UG/KG	12.00	12.000	12.00	1600.00	0	1 / 6
Endosulfan I	UG/KG	0.09	0.261	0.60	47000.00	0	4 / 6
Endosulfan II	UG/KG	0.23	0.555	1.00	47000.00	0	4 / 6
Endosulfan sulfate	UG/KG	0.03	0.396	1.10	47000.00	0	6 / 6
Endrin	UG/KG	0.36	0.918	2.20	2300.00	0	5 / 6
Endrin aldehyde	UG/KG	0.19	0.662	1.40	2300.00	0	5 / 6

Chemicals Less Than Screening Value for Soil

AOC 673 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Fluoranthene	UG/KG	88.00	88.000	88.00	310000.00	0	1 / 6
Heptachlor	UG/KG	0.09	0.247	0.47	140.00	0	5 / 6
Heptachlor epoxide	UG/KG	0.38	0.616	0.91	70.00	0	4 / 6
Mercury	MG/KG	0.16	0.250	0.34	2.30	0	2 / 6
Methoxychlor	UG/KG	0.47	1.002	1.80	39000.00	0	5 / 6
Methylene chloride	UG/KG	6.00	9.250	14.00	85000.00	0	6 / 6
OCDD	PG/G	5.78	6.146	6.51	4300.00	0	2 / 2
Phenanthrene	UG/KG	83.00	83.000	83.00	310000.00	0	1 / 6
Pyrene	UG/KG	53.00	53.000	53.00	230000.00	0	1 / 6
Toluene	UG/KG	3.00	5.000	7.00	1600000.00	0	5 / 6
Vanadium	MG/KG	17.20	17.200	17.20	55.00	0	1 / 6
alpha-BHC	UG/KG	0.08	0.417	1.20	100.00	0	5 / 6
beta-BHC	UG/KG	0.88	0.940	1.00	350.00	0	2 / 6
bis(2-Ethylhexyl)phthalate	UG/KG	59.00	59.000	59.00	46000.00	0	1 / 6
delta-BHC	UG/KG	0.02	0.242	0.57	490.00	0	4 / 6
gamma-BHC (Lindane)	UG/KG	0.04	0.042	0.04	490.00	0	1 / 6

Chemicals Less Than Screening Value for Soil

AOC 675 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	2.00	2.000	2.00	2700.00	0	1 / 2
4,4'-DDE	UG/KG	0.69	0.690	0.69	1900.00	0	1 / 2
4,4'-DDT	UG/KG	0.43	0.470	0.51	1900.00	0	2 / 2
Aldrin	UG/KG	0.02	0.025	0.02	38.00	0	1 / 2
Barium	MG/KG	25.70	25.700	25.70	550.00	0	1 / 2
Copper	MG/KG	26.60	26.600	26.60	290.00	0	1 / 2
Dieldrin	UG/KG	0.06	0.063	0.06	40.00	0	1 / 2
Endosulfan II	UG/KG	1.10	1.800	2.50	47000.00	0	2 / 2
Endosulfan sulfate	UG/KG	0.32	0.320	0.32	47000.00	0	1 / 2
Endrin	UG/KG	0.31	0.475	0.64	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.22	0.220	0.22	2300.00	0	1 / 2
Heptachlor	UG/KG	0.25	0.280	0.31	140.00	0	2 / 2
Lead	MG/KG	6.40	6.400	6.40	400.00	0	1 / 2
Methoxychlor	UG/KG	1.00	1.350	1.70	39000.00	0	2 / 2
Methylene chloride	UG/KG	5.00	8.000	11.00	85000.00	0	2 / 2
Nickel	MG/KG	11.90	11.900	11.90	160.00	0	1 / 2
Toluene	UG/KG	3.00	3.000	3.00	1600000.00	0	1 / 2
alpha-BHC	UG/KG	0.04	0.044	0.04	100.00	0	1 / 2
beta-BHC	UG/KG	1.30	1.300	1.30	350.00	0	1 / 2
delta-BHC	UG/KG	0.22	0.220	0.22	490.00	0	1 / 2
gamma-BHC (Lindane)	UG/KG	0.03	0.149	0.26	490.00	0	2 / 2

Chemicals Less Than Screening Value for Soil

AOC 676 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	44.77	70.179	95.58	430.00	0	2 / 2
1234678-HpCDF	PG/G	7.60	9.520	11.43	430.00	0	2 / 2
123478-HxCDF	PG/G	2.06	2.063	2.06	43.00	0	1 / 2
123678-HxCDF	PG/G	0.83	0.837	0.83	43.00	0	1 / 2
123789-HxCDD	PG/G	0.92	0.920	0.92	43.00	0	1 / 2
2,4,5-T	UG/KG	3.00	3.900	4.80	78000.00	0	2 / 2
2,4,5-TP (Silvex)	UG/KG	1.70	1.700	1.70	63000.00	0	1 / 2
234678-HxCDF	PG/G	0.86	0.863	0.86	43.00	0	1 / 2
4,4'-DDD	UG/KG	0.58	1.242	1.90	2700.00	0	2 / 2
4,4'-DDE	UG/KG	0.28	1.090	1.90	1900.00	0	2 / 2
4,4'-DDT	UG/KG	0.63	0.767	0.90	1900.00	0	2 / 2
Acetonitrile	UG/KG	69.00	69.000	69.00	47000.00	0	1 / 2
Aldrin	UG/KG	0.09	0.111	0.13	38.00	0	2 / 2
Barium	MG/KG	25.40	25.400	25.40	550.00	0	1 / 2
Benzo(a)anthracene	UG/KG	41.00	41.000	41.00	880.00	0	1 / 2
Chromium	MG/KG	21.70	21.700	21.70	39.00	0	1 / 2
Chrysene	UG/KG	44.00	44.000	44.00	88000.00	0	1 / 2
Copper	MG/KG	10.45	13.175	15.90	290.00	0	2 / 2
Dieldrin	UG/KG	0.31	0.530	0.75	40.00	0	2 / 2
Dimethoate	UG/KG	4.70	4.700	4.70	1600.00	0	1 / 2
Endosulfan I	UG/KG	0.15	0.300	0.45	47000.00	0	2 / 2
Endosulfan II	UG/KG	0.26	0.425	0.59	47000.00	0	2 / 2
Endosulfan sulfate	UG/KG	0.34	0.670	1.00	47000.00	0	2 / 2
Endrin	UG/KG	0.58	0.732	0.88	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.50	0.500	0.50	2300.00	0	1 / 2
Fluoranthene	UG/KG	51.00	51.000	51.00	310000.00	0	1 / 2
Heptachlor	UG/KG	0.20	0.212	0.22	140.00	0	2 / 2
Heptachlor epoxide	UG/KG	0.09	0.099	0.09	70.00	0	1 / 2
Lead	MG/KG	46.60	46.600	46.60	400.00	0	1 / 2
Mercury	MG/KG	0.11	0.110	0.11	2.30	0	1 / 2
Methoxychlor	UG/KG	0.60	1.150	1.70	39000.00	0	2 / 2
Methylene chloride	UG/KG	9.00	9.250	9.50	85000.00	0	2 / 2
Nickel	MG/KG	13.05	17.875	22.70	160.00	0	2 / 2
OCDD	PG/G	399.06	662.690	926.32	4300.00	0	2 / 2
OCDF	PG/G	10.75	16.151	21.54	4300.00	0	2 / 2
Pyrene	UG/KG	42.00	42.000	42.00	230000.00	0	1 / 2
Toluene	UG/KG	1.00	3.500	6.00	1600000.00	0	2 / 2
alpha-BHC	UG/KG	0.56	0.560	0.56	100.00	0	1 / 2
beta-BHC	UG/KG	0.68	0.680	0.68	350.00	0	1 / 2
delta-BHC	UG/KG	0.94	0.970	1.00	490.00	0	2 / 2
gamma-BHC (Lindane)	UG/KG	0.17	0.391	0.61	490.00	0	2 / 2

Chemicals Less Than Screening Value for Soil

AOC 677 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	45.92	45.920	45.92	430.00	0	1 / 1
1234678-HpCDF	PG/G	16.63	16.634	16.63	430.00	0	1 / 1
2,4,5-T	UG/KG	2.70	2.700	2.70	78000.00	0	1 / 1
2-Methylnaphthalene	UG/KG	200.00	200.000	200.00	310000.00	0	1 / 9
4,4'-DDD	UG/KG	0.33	0.902	1.40	2700.00	0	5 / 9
4,4'-DDE	UG/KG	0.17	2.724	9.20	1900.00	0	7 / 9
4,4'-DDT	UG/KG	0.76	2.265	4.00	1900.00	0	4 / 9
Acenaphthene	UG/KG	99.00	104.500	110.00	470000.00	0	2 / 9
Acetone	UG/KG	21.00	44.250	72.00	780000.00	0	4 / 9
Acetonitrile	UG/KG	48.00	65.187	100.00	47000.00	0	8 / 9
Aldrin	UG/KG	0.26	0.455	0.65	38.00	0	2 / 9
Anthracene	UG/KG	110.00	110.000	110.00	2300000.00	0	1 / 9
Benzo(a)anthracene	UG/KG	720.00	720.000	720.00	880.00	0	1 / 9
Benzo(b)fluoranthene	UG/KG	670.00	670.000	670.00	880.00	0	1 / 9
Benzo(k)fluoranthene	UG/KG	840.00	840.000	840.00	8800.00	0	1 / 9
Cadmium	MG/KG	0.72	0.720	0.72	7.80	0	1 / 9
Chrysene	UG/KG	47.00	343.500	640.00	88000.00	0	2 / 9
Copper	MG/KG	3.00	5.766	9.50	290.00	0	6 / 9
Di-n-butylphthalate	UG/KG	35.00	35.000	35.00	780000.00	0	1 / 9
Dieldrin	UG/KG	0.11	0.125	0.14	40.00	0	2 / 9
Endosulfan I	UG/KG	0.07	0.205	0.44	47000.00	0	5 / 9
Endosulfan II	UG/KG	0.13	0.636	0.90	47000.00	0	3 / 9
Endosulfan sulfate	UG/KG	0.31	0.370	0.44	47000.00	0	4 / 9
Endrin	UG/KG	0.12	0.787	2.80	2300.00	0	7 / 9
Endrin aldehyde	UG/KG	0.08	0.443	1.60	2300.00	0	7 / 9
Fluoranthene	UG/KG	41.00	520.500	1000.00	310000.00	0	2 / 9
Heptachlor	UG/KG	0.15	0.190	0.23	140.00	0	2 / 9
Heptachlor epoxide	UG/KG	0.11	0.110	0.11	70.00	0	1 / 9
Lead	MG/KG	6.30	12.250	18.20	400.00	0	2 / 9
Methoxychlor	UG/KG	0.08	0.505	0.90	39000.00	0	7 / 9
Methylene chloride	UG/KG	6.00	11.095	16.00	85000.00	0	7 / 9
Naphthalene	UG/KG	52.00	1126.000	2200.00	310000.00	0	2 / 9
Nickel	MG/KG	7.23	7.266	7.30	160.00	0	2 / 9
OCDD	PG/G	474.47	474.470	474.47	4300.00	0	1 / 1
Phenanthrene	UG/KG	55.00	55.000	55.00	310000.00	0	1 / 9
Pyrene	UG/KG	61.00	435.500	810.00	230000.00	0	2 / 9
Toluene	UG/KG	1.50	2.583	5.00	1600000.00	0	6 / 9
beta-BHC	UG/KG	0.25	0.250	0.25	350.00	0	1 / 9
bis(2-Ethylhexyl)phthalate	UG/KG	84.00	84.000	84.00	46000.00	0	1 / 9
delta-BHC	UG/KG	0.40	0.400	0.40	490.00	0	1 / 9
gamma-BHC (Lindane)	UG/KG	0.22	0.220	0.22	490.00	0	1 / 9

Chemicals Less Than Screening Value for Soil

AOC 678 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
2-Methylnaphthalene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 9
4,4'-DDD	UG/KG	0.28	49.302	170.00	2700.00	0	8 / 9
4,4'-DDE	UG/KG	1.20	87.687	480.00	1900.00	0	8 / 9
4,4'-DDT	UG/KG	0.51	20.177	86.00	1900.00	0	7 / 9
Acetone	UG/KG	17.00	22.500	28.00	780000.00	0	2 / 9
Acetonitrile	UG/KG	50.00	50.000	50.00	47000.00	0	1 / 9
Aldrin	UG/KG	0.09	0.133	0.17	38.00	0	2 / 9
Aluminum	MG/KG	4520.00	5130.000	5740.00	7900.00	0	2 / 9
Anthracene	UG/KG	46.00	46.000	46.00	2300000.00	0	1 / 9
Barium	MG/KG	40.90	40.900	40.90	550.00	0	1 / 9
Benzo(a)anthracene	UG/KG	56.00	118.000	180.00	880.00	0	2 / 9
Benzo(b)fluoranthene	UG/KG	240.00	240.000	240.00	880.00	0	1 / 9
Benzo(g,h,i)perylene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 9
Benzo(k)fluoranthene	UG/KG	100.00	100.000	100.00	8800.00	0	1 / 9
Chromium	MG/KG	27.70	27.700	27.70	39.00	0	1 / 9
Chrysene	UG/KG	59.00	129.500	200.00	88000.00	0	2 / 9
Copper	MG/KG	5.60	10.875	15.70	290.00	0	4 / 9
Di-n-butylphthalate	UG/KG	78.00	78.000	78.00	780000.00	0	1 / 9
Dieldrin	UG/KG	0.13	0.214	0.42	40.00	0	7 / 9
Endosulfan I	UG/KG	0.09	1.059	3.20	47000.00	0	6 / 9
Endosulfan II	UG/KG	0.27	0.426	0.69	47000.00	0	3 / 9
Endosulfan sulfate	UG/KG	0.26	0.350	0.49	47000.00	0	4 / 9
Endrin	UG/KG	0.26	1.570	4.10	2300.00	0	3 / 9
Endrin aldehyde	UG/KG	0.23	0.766	1.90	2300.00	0	5 / 9
Fluoranthene	UG/KG	50.00	152.000	330.00	310000.00	0	3 / 9
Freon 113	UG/KG	4.00	4.000	4.00	********.**	0	1 / 9
Heptachlor	UG/KG	0.08	0.124	0.15	140.00	0	3 / 9
Heptachlor epoxide	UG/KG	0.20	0.215	0.23	70.00	0	2 / 9
Indeno(1,2,3-cd)pyrene	UG/KG	97.00	97.000	97.00	880.00	0	1 / 9
Lead	MG/KG	7.40	9.733	13.10	400.00	0	3 / 9
Mercury	MG/KG	0.29	0.290	0.29	2.30	0	1 / 9
Methoxychlor	UG/KG	0.10	1.891	5.40	39000.00	0	6 / 9
Methylene chloride	UG/KG	8.00	9.714	13.00	85000.00	0	7 / 9
Naphthalene	UG/KG	68.00	68.000	68.00	310000.00	0	1 / 9
Nickel	MG/KG	7.10	7.100	7.10	160.00	0	1 / 9
Phenanthrene	UG/KG	86.00	153.000	220.00	310000.00	0	2 / 9
Pyrene	UG/KG	68.00	159.333	330.00	230000.00	0	3 / 9
Toluene	UG/KG	1.00	2.600	4.00	1600000.00	0	5 / 9
Vanadium	MG/KG	6.90	8.050	9.20	55.00	0	2 / 9
beta-BHC	UG/KG	0.35	0.350	0.35	350.00	0	1 / 9
bis(2-Ethylhexyl)phthalate	UG/KG	70.00	183.333	240.00	46000.00	0	3 / 9
delta-BHC	UG/KG	0.15	0.200	0.25	490.00	0	3 / 9
gamma-BHC (Lindane)	UG/KG	0.03	0.158	0.32	490.00	0	3 / 9

Chemicals Less Than Screening Value for Soil

AOC 679 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	147.33	147.330	147.33	430.00	0	1 / 2
1234678-HpCDF	PG/G	5.93	5.936	5.93	430.00	0	1 / 2
123678-HxCDD	PG/G	2.05	2.056	2.05	43.00	0	1 / 2
123789-HxCDD	PG/G	0.74	0.741	0.74	43.00	0	1 / 2
4,4'-DDD	UG/KG	0.24	1.173	1.70	2700.00	0	6 / 11
4,4'-DDE	UG/KG	0.65	2.235	7.00	1900.00	0	6 / 11
4,4'-DDT	UG/KG	0.30	0.655	1.40	1900.00	0	8 / 11
Acetone	UG/KG	7.00	25.055	50.00	780000.00	0	9 / 11
Acetophenone	UG/KG	240.00	240.000	240.00	780000.00	0	1 / 11
Aldrin	UG/KG	0.23	0.230	0.23	38.00	0	1 / 11
Aluminum	MG/KG	3470.00	4582.500	5695.00	7900.00	0	2 / 11
Copper	MG/KG	2.80	2.800	2.80	290.00	0	2 / 11
Di-n-butylphthalate	UG/KG	40.00	56.666	80.00	780000.00	0	6 / 11
Dieldrin	UG/KG	0.15	0.415	0.96	40.00	0	7 / 11
Endosulfan I	UG/KG	0.05	0.111	0.17	47000.00	0	5 / 11
Endosulfan II	UG/KG	0.15	0.480	1.50	47000.00	0	5 / 11
Endosulfan sulfate	UG/KG	0.55	1.000	1.80	47000.00	0	7 / 11
Endrin	UG/KG	0.16	0.915	2.10	2300.00	0	8 / 11
Endrin aldehyde	UG/KG	0.13	0.486	1.10	2300.00	0	8 / 11
Ethyl methacrylate	UG/KG	40.00	40.000	40.00	700000.00	0	1 / 11
Heptachlor	UG/KG	0.07	0.104	0.13	140.00	0	2 / 11
Heptachlor epoxide	UG/KG	0.11	0.480	0.85	70.00	0	2 / 11
Lead	MG/KG	3.90	3.975	4.05	400.00	0	2 / 11
Methoxychlor	UG/KG	0.58	1.158	1.90	39000.00	0	7 / 11
Methyl parathion	UG/KG	3.90	3.900	3.90	2000.00	0	1 / 2
Methylene chloride	UG/KG	10.00	12.000	14.00	85000.00	0	2 / 11
Naphthalene	UG/KG	60.00	60.000	60.00	310000.00	0	1 / 11
OCDD	PG/G	9.89	855.348	1700.80	4300.00	0	2 / 2
OCDF	PG/G	8.16	8.166	8.16	4300.00	0	1 / 2
Phorate	UG/KG	10.00	10.000	10.00	1600.00	0	1 / 2
Toluene	UG/KG	1.00	2.000	3.00	1600000.00	0	6 / 11
Vanadium	MG/KG	6.90	7.975	9.05	55.00	0	2 / 11
alpha-BHC	UG/KG	0.21	0.210	0.21	100.00	0	1 / 11
beta-BHC	UG/KG	0.94	1.470	2.00	350.00	0	2 / 11
delta-BHC	UG/KG	0.24	0.240	0.24	490.00	0	1 / 11

Chemicals Less Than Screening Value for Soil

AOC 681 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Acetonitrile	UG/KG	37.00	54.666	77.00	47000.00	0	3 / 3
Benzo(a)anthracene	UG/KG	60.00	78.333	99.00	880.00	0	3 / 3
Chlordane	UG/KG	89.00	104.500	120.00	470.00	0	2 / 3
Chrysene	UG/KG	48.00	83.333	120.00	88000.00	0	3 / 3
Copper	MG/KG	6.60	7.933	10.50	290.00	0	3 / 3
Di-n-butylphthalate	UG/KG	46.00	46.000	46.00	780000.00	0	1 / 3
Fluoranthene	UG/KG	55.00	102.333	160.00	310000.00	0	3 / 3
Heptachlor	UG/KG	94.00	94.000	94.00	140.00	0	1 / 3
Methylene chloride	UG/KG	5.00	8.666	12.00	85000.00	0	3 / 3
Phenanthrene	UG/KG	65.00	78.500	92.00	310000.00	0	2 / 3
Pyrene	UG/KG	50.00	74.666	110.00	230000.00	0	3 / 3
Toluene	UG/KG	2.00	2.000	2.00	1600000.00	0	1 / 3
bis(2-Ethylhexyl)phthalate	UG/KG	72.00	72.000	72.00	46000.00	0	1 / 3

Chemicals Less Than Screening Value for Soil

AOC 685 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	5.35	5.350	5.35	430.00	0	1 / 1
2,4,5-T	UG/KG	2.30	2.300	2.30	78000.00	0	1 / 1
2,4,5-TP (Silvex)	UG/KG	0.81	0.810	0.81	63000.00	0	1 / 1
2,4-D	UG/KG	28.00	28.000	28.00	78000.00	0	1 / 1
4,4'-DDD	UG/KG	1.70	2.050	2.60	2700.00	0	3 / 9
4,4'-DDE	UG/KG	0.35	34.730	110.00	1900.00	0	5 / 9
4,4'-DDT	UG/KG	0.25	1.250	2.00	1900.00	0	3 / 9
4-Methylphenol	UG/KG	160.00	160.000	160.00	39000.00	0	1 / 9
Acetone	UG/KG	22.00	28.000	36.00	780000.00	0	4 / 9
Aldrin	UG/KG	0.09	0.460	0.88	38.00	0	4 / 9
Anthracene	UG/KG	43.00	43.000	43.00	2300000.00	0	1 / 9
Barium	MG/KG	33.20	38.466	47.70	550.00	0	9 / 9
Benzo(a)anthracene	UG/KG	54.00	149.200	280.00	880.00	0	5 / 9
Chrysene	UG/KG	57.00	161.000	290.00	88000.00	0	5 / 9
Di-n-butylphthalate	UG/KG	100.00	100.000	100.00	780000.00	0	1 / 9
Dieldrin	UG/KG	0.40	0.400	0.40	40.00	0	1 / 9
Endosulfan I	UG/KG	0.22	0.947	1.80	47000.00	0	5 / 9
Endosulfan II	UG/KG	0.25	0.931	1.90	47000.00	0	9 / 9
Endosulfan sulfate	UG/KG	0.23	0.500	0.86	47000.00	0	3 / 9
Endrin	UG/KG	0.43	1.351	2.30	2300.00	0	8 / 9
Endrin aldehyde	UG/KG	0.65	3.453	8.90	2300.00	0	3 / 9
Fluoranthene	UG/KG	90.00	232.000	470.00	310000.00	0	5 / 9
Freon 113	UG/KG	4.00	9.500	15.00	********.**	0	2 / 9
Heptachlor	UG/KG	0.12	0.248	0.45	140.00	0	9 / 9
Heptachlor epoxide	UG/KG	0.20	0.407	0.82	70.00	0	4 / 9
Mercury	MG/KG	0.13	0.160	0.21	2.30	0	6 / 9
Methoxychlor	UG/KG	0.52	2.345	4.00	39000.00	0	7 / 9
Methylene chloride	UG/KG	8.00	10.333	15.00	85000.00	0	3 / 9
Naphthalene	UG/KG	52.00	52.000	52.00	310000.00	0	1 / 9

Chemicals Less Than Screening Value for Soil

AOC 685 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	17.30	28.811	47.60	160.00	0	9 / 9
OCDD	PG/G	70.15	70.156	70.15	4300.00	0	1 / 1
OCDF	PG/G	1.26	1.267	1.26	4300.00	0	1 / 1
Phenanthrene	UG/KG	60.00	128.600	220.00	310000.00	0	5 / 9
Pyrene	UG/KG	80.00	194.800	390.00	230000.00	0	5 / 9
Tin	MG/KG	11.80	27.760	42.00	4700.00	0	5 / 9
Toluene	UG/KG	1.00	3.750	6.00	1600000.00	0	4 / 9
beta-BHC	UG/KG	0.46	0.828	1.20	350.00	0	8 / 9
bis(2-Ethylhexyl)phthalate	UG/KG	57.00	88.500	120.00	46000.00	0	2 / 9
delta-BHC	UG/KG	0.74	0.740	0.74	490.00	0	1 / 9
gamma-BHC (Lindane)	UG/KG	0.17	0.412	1.20	490.00	0	5 / 9

Chemicals Less Than Screening Value for Soil

AOC 687 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.31	0.445	0.64	2700.00	0	4 / 4
4,4'-DDE	UG/KG	0.86	2.165	3.70	1900.00	0	4 / 4
4,4'-DDT	UG/KG	1.44	2.061	2.40	1900.00	0	4 / 4
Acetone	UG/KG	8.00	8.250	8.50	780000.00	0	2 / 4
Aldrin	UG/KG	0.20	0.260	0.33	38.00	0	3 / 4
Aroclor-1260	UG/KG	27.00	27.000	27.00	83.00	0	1 / 4
Copper	MG/KG	3.60	12.575	19.10	290.00	0	4 / 4
Dieldrin	UG/KG	0.22	0.265	0.32	40.00	0	3 / 4
Endosulfan I	UG/KG	0.19	0.325	0.63	47000.00	0	4 / 4
Endosulfan II	UG/KG	0.26	0.487	0.90	47000.00	0	4 / 4
Endosulfan sulfate	UG/KG	0.47	1.067	1.70	47000.00	0	4 / 4
Endrin	UG/KG	0.35	0.570	0.95	2300.00	0	4 / 4
Endrin aldehyde	UG/KG	0.49	0.667	0.95	2300.00	0	4 / 4
Heptachlor	UG/KG	0.15	0.321	0.69	140.00	0	4 / 4
Heptachlor epoxide	UG/KG	0.18	0.215	0.25	70.00	0	2 / 4
Lead	MG/KG	11.00	15.925	20.40	400.00	0	4 / 4
Mercury	MG/KG	0.14	0.140	0.14	2.30	0	1 / 4
Methoxychlor	UG/KG	0.59	1.223	2.00	39000.00	0	4 / 4
Methylene chloride	UG/KG	13.00	14.000	15.00	85000.00	0	2 / 4
Nickel	MG/KG	8.40	10.100	12.50	160.00	0	3 / 4
Vanadium	MG/KG	15.85	27.662	42.60	55.00	0	4 / 4
beta-BHC	UG/KG	0.66	0.785	0.91	350.00	0	2 / 4
gamma-BHC (Lindane)	UG/KG	0.34	0.453	0.66	490.00	0	3 / 4

Chemicals Less Than Screening Value for Soil

AOC 690 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	0.80	17.422	71.61	430.00	0	19 / 20
1234678-HpCDF	PG/G	2.84	6.292	16.72	430.00	0	7 / 20
123478-HxCDF	PG/G	0.78	1.855	2.74	43.00	0	4 / 20
123678-HxCDD	PG/G	1.97	1.984	1.99	43.00	0	2 / 20
123678-HxCDF	PG/G	0.67	1.046	1.72	43.00	0	5 / 20
2,4,5-T	UG/KG	1.40	7.200	13.00	78000.00	0	2 / 2
2,4,5-TP (Silvex)	UG/KG	1.40	3.650	5.90	63000.00	0	2 / 2
2-Methylnaphthalene	UG/KG	39.00	109.666	190.00	310000.00	0	3 / 20
2378-TCDF	PG/G	3.55	3.553	3.55	43.00	0	1 / 20
4,4'-DDD	UG/KG	0.24	1.916	14.00	2700.00	0	15 / 20
4,4'-DDE	UG/KG	0.08	8.156	60.00	1900.00	0	17 / 20
4,4'-DDT	UG/KG	0.17	1.286	4.30	1900.00	0	16 / 20
Acetone	UG/KG	25.00	47.055	96.00	780000.00	0	9 / 20
Acetophenone	UG/KG	51.00	51.000	51.00	780000.00	0	1 / 20
Aldrin	UG/KG	0.10	0.737	2.70	38.00	0	9 / 20
Anthracene	UG/KG	110.00	110.000	110.00	2300000.00	0	1 / 20
Barium	MG/KG	28.60	28.600	28.60	550.00	0	1 / 20
Benzo(b)fluoranthene	UG/KG	74.00	74.000	74.00	880.00	0	1 / 20
Benzo(g,h,i)perylene	UG/KG	430.00	430.000	430.00	310000.00	0	1 / 20
Benzo(k)fluoranthene	UG/KG	39.00	59.000	79.00	8800.00	0	2 / 20
Chlordane	UG/KG	7.60	7.600	7.60	470.00	0	1 / 20
Chloroform	UG/KG	2.00	2.500	4.00	78000.00	0	4 / 20
Chrysene	UG/KG	46.00	298.642	1600.00	88000.00	0	7 / 20
Copper	MG/KG	9.30	27.758	90.70	290.00	0	18 / 20
Di-n-butylphthalate	UG/KG	41.00	62.916	120.00	780000.00	0	12 / 20
Dibenzofuran	UG/KG	50.00	55.000	60.00	31000.00	0	2 / 20
Dieldrin	UG/KG	0.17	0.460	0.95	40.00	0	7 / 20
Endosulfan I	UG/KG	0.25	0.756	1.50	47000.00	0	14 / 20
Endosulfan II	UG/KG	0.18	1.626	4.50	47000.00	0	16 / 20
Endosulfan sulfate	UG/KG	0.10	0.729	1.50	47000.00	0	7 / 20
Endrin	UG/KG	0.21	1.070	2.40	2300.00	0	13 / 20
Endrin aldehyde	UG/KG	0.23	0.669	1.30	2300.00	0	15 / 20
Fluoranthene	UG/KG	18.00	377.375	2600.00	310000.00	0	8 / 20
Heptachlor	UG/KG	0.14	0.528	2.10	140.00	0	10 / 20
Heptachlor epoxide	UG/KG	0.12	0.312	0.67	70.00	0	15 / 20
Indeno(1,2,3-cd)pyrene	UG/KG	410.00	410.000	410.00	880.00	0	1 / 20
Manganese	MG/KG	8.70	84.580	196.00	1092.00	0	5 / 20
Mercury	MG/KG	0.15	0.215	0.39	2.30	0	9 / 20
Methoxychlor	UG/KG	0.34	1.497	3.50	39000.00	0	18 / 20
Methyl parathion	UG/KG	28.00	28.000	28.00	2000.00	0	1 / 2
Methylene chloride	UG/KG	3.00	6.025	11.00	85000.00	0	20 / 20
Naphthalene	UG/KG	93.00	126.500	160.00	310000.00	0	2 / 20
Nickel	MG/KG	6.10	11.866	14.90	160.00	0	3 / 20
OCDD	PG/G	36.34	193.130	817.96	4300.00	0	20 / 20
OCDF	PG/G	1.75	9.001	20.65	4300.00	0	12 / 20
Phenanthrene	UG/KG	12.00	241.800	950.00	310000.00	0	5 / 20
Pyrene	UG/KG	44.00	342.625	2200.00	230000.00	0	8 / 20
Toluene	UG/KG	2.00	2.400	4.00	1600000.00	0	5 / 20
Vanadium	MG/KG	5.50	25.700	37.30	55.00	0	4 / 20
alpha-BHC	UG/KG	0.06	0.085	0.10	100.00	0	2 / 20
beta-BHC	UG/KG	0.22	0.654	1.50	350.00	0	11 / 20
bis(2-Ethylhexyl)phthalate	UG/KG	44.00	142.428	270.00	46000.00	0	7 / 20

Chemicals Less Than Screening Value for Soil

AOC 690 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
delta-BHC	UG/KG	0.20	0.777	3.81	490.00	0	8 / 20
gamma-BHC (Lindane)	UG/KG	0.14	0.268	0.39	490.00	0	4 / 20

Chemicals Less Than Screening Value for Soil

AOC DMA Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	23.38	23.387	23.38	430.00	0	1 / 1
1234678-HpCDF	PG/G	5.00	5.003	5.00	430.00	0	1 / 1
2,4,5-T	UG/KG	1.20	1.200	1.20	78000.00	0	1 / 2
2,4,5-TP (Silvex)	UG/KG	1.50	1.550	1.60	63000.00	0	2 / 2
2,4-D	UG/KG	8.30	8.300	8.30	78000.00	0	1 / 2
4,4'-DDD	UG/KG	0.21	0.596	1.06	2700.00	0	3 / 5
4,4'-DDE	UG/KG	0.15	0.753	0.98	1900.00	0	4 / 5
4,4'-DDT	UG/KG	0.26	1.392	3.70	1900.00	0	5 / 5
Acetone	UG/KG	5.00	12.666	20.00	780000.00	0	3 / 5
Aldrin	UG/KG	0.11	0.468	0.82	38.00	0	2 / 5
Aroclor-1260	UG/KG	42.00	42.000	42.00	83.00	0	1 / 5
Benzo(a)pyrene	UG/KG	20.00	20.000	20.00	88.00	0	1 / 5
Benzo(b)fluoranthene	UG/KG	58.00	59.500	61.00	880.00	0	2 / 5
Benzo(k)fluoranthene	UG/KG	63.00	64.500	66.00	8800.00	0	2 / 5
Cadmium	MG/KG	1.18	1.185	1.18	7.80	0	1 / 5
Copper	MG/KG	17.70	24.066	31.10	290.00	0	3 / 5
Di-n-butylphthalate	UG/KG	51.00	54.000	56.00	780000.00	0	3 / 5
Dieldrin	UG/KG	0.46	0.931	1.60	40.00	0	4 / 5
Dimethoate	UG/KG	9.20	9.200	9.20	1600.00	0	1 / 5
Disulfoton	UG/KG	3.40	3.400	3.40	310.00	0	1 / 2
Endosulfan I	UG/KG	0.19	0.643	0.96	47000.00	0	4 / 5
Endosulfan II	UG/KG	0.36	1.205	2.30	47000.00	0	3 / 5
Endosulfan sulfate	UG/KG	0.56	0.850	1.30	47000.00	0	4 / 5
Endrin	UG/KG	0.19	1.108	2.70	2300.00	0	4 / 5
Endrin aldehyde	UG/KG	0.89	0.895	0.89	2300.00	0	1 / 5
Heptachlor	UG/KG	0.19	0.470	1.10	140.00	0	4 / 5
Heptachlor epoxide	UG/KG	0.15	0.306	0.55	70.00	0	4 / 5
Mercury	MG/KG	0.14	0.140	0.14	2.30	0	1 / 5
Methoxychlor	UG/KG	0.61	1.582	2.30	39000.00	0	5 / 5
Methylene chloride	UG/KG	10.00	13.000	16.00	85000.00	0	2 / 5
Nickel	MG/KG	19.75	19.750	19.75	160.00	0	1 / 5
OCDD	PG/G	204.11	204.116	204.11	4300.00	0	1 / 1
OCDF	PG/G	9.72	9.722	9.72	4300.00	0	1 / 1
Parathion	UG/KG	2.80	2.800	2.80	47000.00	0	1 / 2
Pyrene	UG/KG	30.00	30.000	30.00	230000.00	0	1 / 5
Tetrachloroethene	UG/KG	1.00	1.000	1.00	12000.00	0	1 / 5
Toluene	UG/KG	2.00	2.333	3.00	1600000.00	0	3 / 5
Vanadium	MG/KG	41.80	44.950	48.10	55.00	0	2 / 5
alpha-BHC	UG/KG	0.16	0.220	0.28	100.00	0	2 / 5
beta-BHC	UG/KG	0.30	0.950	1.60	350.00	0	2 / 5

Chemicals Less Than Screening Value for Soil

AOC DMA Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
bis(2-Ethylhexyl)phthalate	UG/KG	80.00	186.666	330.00	46000.00	0	3 / 5
delta-BHC	UG/KG	0.29	0.543	0.99	490.00	0	3 / 5
gamma-BHC (Lindane)	UG/KG	0.22	0.262	0.30	490.00	0	2 / 5

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
2-Methylnaphthalene	UG/KG	60.00	60.000	60.00	310000.00	0	1 / 15
4,4'-DDD	UG/KG	0.20	6.106	37.00	2700.00	0	14 / 15
4,4'-DDE	UG/KG	0.51	18.097	140.00	1900.00	0	10 / 15
4,4'-DDT	UG/KG	0.29	3.140	21.00	1900.00	0	11 / 15
Acetone	UG/KG	22.00	48.200	62.00	780000.00	0	5 / 15
Aldrin	UG/KG	0.07	0.289	0.71	38.00	0	9 / 15
Aroclor-1260	UG/KG	23.00	26.000	29.00	83.00	0	2 / 15
Barium	MG/KG	28.90	37.775	43.40	550.00	0	4 / 15
Benzo(a)anthracene	UG/KG	43.00	51.000	59.00	880.00	0	2 / 15
Benzo(a)pyrene	UG/KG	50.00	50.000	50.00	88.00	0	1 / 15
Benzo(b)fluoranthene	UG/KG	97.00	97.000	97.00	880.00	0	1 / 15
Benzo(k)fluoranthene	UG/KG	99.00	99.000	99.00	8800.00	0	1 / 15
Benzoic acid	UG/KG	150.00	150.000	150.00	31000000.00	0	1 / 15
Butylbenzylphthalate	UG/KG	98.00	98.000	98.00	1600000.00	0	1 / 15
Chlordane	UG/KG	2.20	21.600	41.00	470.00	0	2 / 15
Chrysene	UG/KG	40.00	44.500	49.00	88000.00	0	2 / 15
Di-n-butylphthalate	UG/KG	71.00	101.555	140.00	780000.00	0	9 / 15
Dieldrin	UG/KG	0.13	0.488	1.50	40.00	0	9 / 15
Endosulfan I	UG/KG	0.19	0.709	1.70	47000.00	0	13 / 15
Endosulfan II	UG/KG	0.05	0.380	0.89	47000.00	0	9 / 15
Endosulfan sulfate	UG/KG	0.31	0.808	1.50	47000.00	0	8 / 15
Endrin	UG/KG	0.31	2.281	16.00	2300.00	0	9 / 15
Endrin aldehyde	UG/KG	0.33	0.736	1.30	2300.00	0	5 / 15
Fluoranthene	UG/KG	79.00	80.000	81.00	310000.00	0	3 / 15
Heptachlor	UG/KG	0.11	0.386	0.62	140.00	0	8 / 15
Heptachlor epoxide	UG/KG	0.04	0.681	4.83	70.00	0	13 / 15
Manganese	MG/KG	15.10	194.957	419.00	1092.00	0	7 / 15
Mercury	MG/KG	0.13	0.242	0.47	2.30	0	8 / 15
Methoxychlor	UG/KG	0.30	1.132	3.70	39000.00	0	14 / 15
Methylene chloride	UG/KG	4.00	7.133	12.00	85000.00	0	15 / 15
Nickel	MG/KG	5.40	11.029	18.10	160.00	0	12 / 15
OCDD	PG/G	11.91	11.912	11.91	4300.00	0	1 / 1
Phenanthrene	UG/KG	47.00	56.000	63.00	310000.00	0	3 / 15
Pyrene	UG/KG	61.00	65.250	74.00	230000.00	0	4 / 15
Tin	MG/KG	7.50	7.500	7.50	4700.00	0	1 / 15
Toluene	UG/KG	2.00	8.285	40.00	1600000.00	0	7 / 15
Vanadium	MG/KG	8.50	27.103	53.30	55.00	0	15 / 15
alpha-BHC	UG/KG	0.09	0.268	0.71	100.00	0	4 / 15
beta-BHC	UG/KG	0.09	0.681	1.30	350.00	0	9 / 15

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
bis(2-Ethylhexyl)phthalate	UG/KG	65.00	88.333	100.00	46000.00	0	3 / 15
delta-BHC	UG/KG	0.13	0.646	2.40	490.00	0	9 / 15
gamma-BHC (Lindane)	UG/KG	0.13	0.213	0.27	490.00	0	3 / 15

Chemicals Less Than Screening Value for Soil

AOC RTC Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	1.32	15.751	30.18	430.00	0	2 / 2
Acenaphthene	UG/KG	98.00	98.000	98.00	470000.00	0	1 / 11
Acetone	UG/KG	6.00	34.111	130.00	780000.00	0	9 / 11
Benzo(a)anthracene	UG/KG	130.00	130.000	130.00	880.00	0	1 / 11
Benzo(b)fluoranthene	UG/KG	210.00	210.000	210.00	880.00	0	1 / 11
Benzo(g,h,i)perylene	UG/KG	53.00	53.000	53.00	310000.00	0	1 / 11
Benzo(k)fluoranthene	UG/KG	230.00	230.000	230.00	8800.00	0	1 / 11
Chrysene	UG/KG	160.00	160.000	160.00	88000.00	0	1 / 11
Di-n-butylphthalate	UG/KG	45.00	72.642	97.00	780000.00	0	7 / 11
Fluoranthene	UG/KG	220.00	220.000	220.00	310000.00	0	1 / 11
Indeno(1,2,3-cd)pyrene	UG/KG	58.00	58.000	58.00	880.00	0	1 / 11
Methylene chloride	UG/KG	4.00	6.950	15.00	85000.00	0	10 / 11
OCDF	PG/G	20.44	20.449	20.44	4300.00	0	1 / 2
Phenanthrene	UG/KG	80.00	80.000	80.00	310000.00	0	1 / 11
Pyrene	UG/KG	180.00	180.000	180.00	230000.00	0	1 / 11
bis(2-Ethylhexyl)phthalate	UG/KG	89.00	179.500	270.00	46000.00	0	2 / 11

Chemicals Less Than Screening Value for Soil

AOC 671 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.23	11.038	60.00	2700.00	0	6 / 7
4,4'-DDE	UG/KG	0.18	27.998	160.00	1900.00	0	6 / 7
4,4'-DDT	UG/KG	0.34	2.935	7.70	1900.00	0	6 / 7
Acetone	UG/KG	33.00	45.333	67.00	780000.00	0	3 / 7
Aldrin	UG/KG	0.43	0.430	0.43	38.00	0	1 / 7
Chromium	MG/KG	19.10	23.400	26.50	39.00	0	3 / 7
Copper	MG/KG	5.20	63.600	122.00	290.00	0	2 / 7
Di-n-butylphthalate	UG/KG	51.00	92.333	130.00	780000.00	0	3 / 7
Dieldrin	UG/KG	0.28	0.492	0.71	40.00	0	4 / 7
Endosulfan I	UG/KG	0.15	0.201	0.32	47000.00	0	6 / 7
Endosulfan II	UG/KG	0.23	0.423	0.54	47000.00	0	6 / 7
Endosulfan sulfate	UG/KG	0.15	0.150	0.15	47000.00	0	1 / 7
Endrin	UG/KG	0.15	0.570	1.80	2300.00	0	4 / 7
Endrin aldehyde	UG/KG	0.08	0.386	0.63	2300.00	0	3 / 7
Fluoranthene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 7
Heptachlor	UG/KG	0.15	0.430	1.10	140.00	0	6 / 7
Heptachlor epoxide	UG/KG	0.24	1.070	1.90	70.00	0	2 / 7
Methoxychlor	UG/KG	0.34	1.423	2.90	39000.00	0	6 / 7
Methylene chloride	UG/KG	5.00	10.833	15.00	85000.00	0	6 / 7
Pyrene	UG/KG	71.00	71.000	71.00	230000.00	0	1 / 7
Toluene	UG/KG	2.00	5.166	12.00	1600000.00	0	6 / 7
Vanadium	MG/KG	21.70	24.200	26.70	55.00	0	2 / 7
alpha-BHC	UG/KG	0.07	0.102	0.13	100.00	0	2 / 7
beta-BHC	UG/KG	1.40	1.400	1.40	350.00	0	1 / 7
bis(2-Ethylhexyl)phthalate	UG/KG	76.00	76.000	76.00	46000.00	0	1 / 7
delta-BHC	UG/KG	0.37	0.460	0.55	490.00	0	2 / 7
gamma-BHC (Lindane)	UG/KG	0.35	0.350	0.35	490.00	0	1 / 7

Chemicals Less Than Screening Value for Soil

AOC 672 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	1.00	1.333	1.60	2700.00	0	3 / 4
4,4'-DDE	UG/KG	0.22	1.112	2.60	1900.00	0	4 / 4
4,4'-DDT	UG/KG	1.10	2.200	3.40	1900.00	0	4 / 4
Acetone	UG/KG	22.00	25.666	28.00	780000.00	0	3 / 4
Chromium	MG/KG	6.80	6.800	6.80	39.00	0	1 / 4
Di-n-butylphthalate	UG/KG	71.00	104.000	150.00	780000.00	0	3 / 4
Dieldrin	UG/KG	0.16	0.165	0.17	40.00	0	2 / 4
Endosulfan I	UG/KG	0.38	0.380	0.38	47000.00	0	1 / 4
Endosulfan II	UG/KG	0.33	0.465	0.60	47000.00	0	2 / 4
Endosulfan sulfate	UG/KG	1.30	1.300	1.30	47000.00	0	1 / 4
Endrin	UG/KG	0.21	0.753	1.80	2300.00	0	3 / 4
Endrin aldehyde	UG/KG	0.34	0.766	1.00	2300.00	0	3 / 4
Heptachlor	UG/KG	0.32	0.482	0.70	140.00	0	4 / 4
Heptachlor epoxide	UG/KG	0.31	0.310	0.31	70.00	0	1 / 4
Methoxychlor	UG/KG	0.96	1.620	2.40	39000.00	0	3 / 4

Chemicals Less Than Screening Value for Soil

AOC 672 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Methylene chloride	UG/KG	6.00	8.666	12.00	85000.00	0	3 / 4
Toluene	UG/KG	12.00	12.000	12.00	1600000.00	0	1 / 4
delta-BHC	UG/KG	0.20	0.200	0.20	490.00	0	1 / 4
gamma-BHC (Lindane)	UG/KG	0.15	0.185	0.23	490.00	0	4 / 4

Chemicals Less Than Screening Value for Soil

AOC 673 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.18	2.290	4.40	2700.00	0	2 / 2
4,4'-DDE	UG/KG	3.80	4.500	5.20	1900.00	0	2 / 2
4,4'-DDT	UG/KG	3.40	3.400	3.40	1900.00	0	1 / 2
Acetone	UG/KG	65.00	65.000	65.00	780000.00	0	1 / 2
Aldrin	UG/KG	0.10	0.245	0.39	38.00	0	2 / 2
Dieldrin	UG/KG	0.11	0.245	0.38	40.00	0	2 / 2
Endosulfan I	UG/KG	0.12	0.165	0.21	47000.00	0	2 / 2
Endosulfan II	UG/KG	0.23	0.315	0.40	47000.00	0	2 / 2
Endosulfan sulfate	UG/KG	0.24	0.820	1.40	47000.00	0	2 / 2
Endrin	UG/KG	0.57	0.570	0.57	2300.00	0	1 / 2
Endrin aldehyde	UG/KG	0.45	0.505	0.56	2300.00	0	2 / 2
Fluoranthene	UG/KG	190.00	190.000	190.00	310000.00	0	1 / 2
Heptachlor	UG/KG	0.12	0.320	0.52	140.00	0	2 / 2
Methylene chloride	UG/KG	8.00	9.000	10.00	85000.00	0	2 / 2
Pyrene	UG/KG	130.00	130.000	130.00	230000.00	0	1 / 2
Toluene	UG/KG	3.00	3.000	3.00	1600000.00	0	1 / 2
alpha-BHC	UG/KG	0.18	0.690	1.20	100.00	0	2 / 2
bis(2-Ethylhexyl)phthalate	UG/KG	120.00	120.000	120.00	46000.00	0	1 / 2
delta-BHC	UG/KG	0.07	0.103	0.13	490.00	0	2 / 2

Chemicals Less Than Screening Value for Soil

AOC 676 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	40.00	40.000	40.00	2700.00	0	1 / 2
4,4'-DDE	UG/KG	15.00	15.000	15.00	1900.00	0	1 / 2
4,4'-DDT	UG/KG	71.00	71.000	71.00	1900.00	0	1 / 2
Acetone	UG/KG	17.00	17.000	17.00	780000.00	0	1 / 2
Acetonitrile	UG/KG	69.00	69.000	69.00	47000.00	0	1 / 2
Aldrin	UG/KG	3.60	3.600	3.60	38.00	0	1 / 2
Benzo(a)anthracene	UG/KG	53.00	53.000	53.00	880.00	0	1 / 2
Chromium	MG/KG	28.50	28.500	28.50	39.00	0	1 / 2
Chrysene	UG/KG	62.00	62.000	62.00	88000.00	0	1 / 2
Copper	MG/KG	8.40	8.800	9.20	290.00	0	2 / 2
Dieldrin	UG/KG	0.99	0.990	0.99	40.00	0	1 / 2
Endosulfan I	UG/KG	8.10	8.100	8.10	47000.00	0	1 / 2
Endrin	UG/KG	7.40	7.400	7.40	2300.00	0	1 / 2
Fluoranthene	UG/KG	34.00	92.000	150.00	310000.00	0	2 / 2
Heptachlor epoxide	UG/KG	0.59	0.590	0.59	70.00	0	1 / 2
Lead	MG/KG	10.90	10.900	10.90	400.00	0	1 / 2
Methylene chloride	UG/KG	7.00	9.000	11.00	85000.00	0	2 / 2
Nickel	MG/KG	10.60	10.650	10.70	160.00	0	2 / 2
Pyrene	UG/KG	35.00	82.500	130.00	230000.00	0	2 / 2
Toluene	UG/KG	19.00	19.000	19.00	1600000.00	0	1 / 2
delta-BHC	UG/KG	0.90	0.900	0.90	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 677 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
2-Methylnaphthalene	UG/KG	1900.00	1900.000	1900.00	310000.00	0	1 / 6
4,4'-DDD	UG/KG	2.90	6.700	14.00	2700.00	0	3 / 5
4,4'-DDE	UG/KG	4.80	9.900	15.00	1900.00	0	2 / 5
4,4'-DDT	UG/KG	2.40	12.200	22.00	1900.00	0	2 / 5
Acenaphthene	UG/KG	2300.00	2300.000	2300.00	470000.00	0	1 / 6
Acetone	UG/KG	22.00	62.666	200.00	780000.00	0	6 / 6
Acetonitrile	UG/KG	40.00	86.600	150.00	47000.00	0	5 / 6
Aldrin	UG/KG	0.52	1.173	1.60	38.00	0	3 / 5
Anthracene	UG/KG	72.00	501.000	930.00	2300000.00	0	2 / 6
Benzo(a)anthracene	UG/KG	150.00	315.000	480.00	880.00	0	2 / 6
Benzo(b)fluoranthene	UG/KG	220.00	220.000	220.00	880.00	0	1 / 6
Benzo(k)fluoranthene	UG/KG	140.00	140.000	140.00	8800.00	0	1 / 6
Chrysene	UG/KG	130.00	275.000	420.00	88000.00	0	2 / 6
Copper	MG/KG	7.30	54.450	278.00	290.00	0	6 / 6
Dibenzofuran	UG/KG	1800.00	1800.000	1800.00	31000.00	0	1 / 6
Dieldrin	UG/KG	0.29	0.630	0.97	40.00	0	2 / 5
Endosulfan I	UG/KG	0.35	0.350	0.35	47000.00	0	1 / 5
Endosulfan II	UG/KG	0.19	0.190	0.19	47000.00	0	1 / 5
Endosulfan sulfate	UG/KG	0.62	0.670	0.72	47000.00	0	2 / 5
Endrin	UG/KG	0.32	2.173	3.90	2300.00	0	3 / 5
Endrin aldehyde	UG/KG	0.25	0.633	1.30	2300.00	0	3 / 5

Chemicals Less Than Screening Value for Soil

AOC 677 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Fluoranthene	UG/KG	58.00	650.000	2800.00	310000.00	0	5 / 6
Fluorene	UG/KG	2200.00	2200.000	2200.00	310000.00	0	1 / 6
Heptachlor	UG/KG	0.17	0.265	0.36	140.00	0	2 / 5
Heptachlor epoxide	UG/KG	0.75	0.750	0.75	70.00	0	1 / 5
Lead	MG/KG	19.90	19.900	19.90	400.00	0	1 / 6
Mercury	MG/KG	0.20	0.200	0.20	2.30	0	1 / 6
Methoxychlor	UG/KG	0.50	2.400	5.40	39000.00	0	3 / 5
Methylene chloride	UG/KG	10.00	13.000	17.00	85000.00	0	4 / 6
Naphthalene	UG/KG	5900.00	5900.000	5900.00	310000.00	0	1 / 6
Nickel	MG/KG	6.90	11.460	21.10	160.00	0	5 / 6
Phenanthrene	UG/KG	110.00	110.000	110.00	310000.00	0	1 / 6
Pyrene	UG/KG	56.00	563.750	1900.00	230000.00	0	4 / 6
Tin	MG/KG	10.60	10.933	11.20	4700.00	0	3 / 6
Toluene	UG/KG	2.00	8.750	23.00	1600000.00	0	4 / 6
beta-BHC	UG/KG	0.75	0.750	0.75	350.00	0	1 / 5
delta-BHC	UG/KG	0.69	1.145	1.60	490.00	0	2 / 5
gamma-BHC (Lindane)	UG/KG	0.10	0.185	0.27	490.00	0	2 / 5

Chemicals Less Than Screening Value for Soil

AOC 678 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	2.10	2.103	2.10	430.00	0	1 / 1
123789-HxCDF	PG/G	0.49	0.492	0.49	43.00	0	1 / 1
2,4,5-T	UG/KG	3.40	3.400	3.40	78000.00	0	1 / 1
4,4'-DDD	UG/KG	1.20	9.980	42.00	2700.00	0	5 / 7
4,4'-DDE	UG/KG	3.60	10.750	28.00	1900.00	0	4 / 7
4,4'-DDT	UG/KG	0.53	2.125	4.60	1900.00	0	4 / 7
Acetone	UG/KG	12.50	18.375	25.00	780000.00	0	4 / 7
Acetonitrile	UG/KG	85.00	85.000	85.00	47000.00	0	1 / 7
Aldrin	UG/KG	0.13	0.340	0.55	38.00	0	2 / 7
Barium	MG/KG	58.60	58.600	58.60	550.00	0	1 / 7
Benzo(a)anthracene	UG/KG	75.00	75.000	75.00	880.00	0	1 / 7
Chromium	MG/KG	10.00	10.000	10.00	39.00	0	1 / 7
Chrysene	UG/KG	110.00	110.000	110.00	88000.00	0	1 / 7
Copper	MG/KG	3.30	19.825	67.30	290.00	0	4 / 7
Di-n-butylphthalate	UG/KG	53.00	53.000	53.00	780000.00	0	1 / 7
Dieldrin	UG/KG	0.07	0.165	0.28	40.00	0	3 / 7
Dimethoate	UG/KG	4.50	4.500	4.50	1600.00	0	1 / 7
Endosulfan I	UG/KG	0.02	0.662	1.30	47000.00	0	2 / 7
Endosulfan II	UG/KG	0.25	0.505	0.76	47000.00	0	2 / 7
Endosulfan sulfate	UG/KG	1.10	1.100	1.10	47000.00	0	1 / 7
Endrin	UG/KG	0.06	0.325	0.76	2300.00	0	4 / 7
Endrin aldehyde	UG/KG	0.14	0.497	0.91	2300.00	0	4 / 7
Fluoranthene	UG/KG	120.00	120.000	120.00	310000.00	0	1 / 7
Heptachlor	UG/KG	0.05	0.100	0.15	140.00	0	2 / 7
Heptachlor epoxide	UG/KG	0.25	0.260	0.27	70.00	0	2 / 7

Chemicals Less Than Screening Value for Soil

AOC 678 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Methoxychlor	UG/KG	1.80	2.800	4.00	39000.00	0	3 / 7
Methylene chloride	UG/KG	9.00	12.416	17.00	85000.00	0	6 / 7
Nickel	MG/KG	13.30	13.300	13.30	160.00	0	1 / 7
OCDD	PG/G	32.85	32.854	32.85	4300.00	0	1 / 1
Phenanthrene	UG/KG	67.00	67.000	67.00	310000.00	0	1 / 7
Pyrene	UG/KG	100.00	100.000	100.00	230000.00	0	1 / 7
Selenium	MG/KG	0.67	0.670	0.67	39.00	0	1 / 7
Toluene	UG/KG	1.00	3.750	7.00	1600000.00	0	4 / 7
Vanadium	MG/KG	18.20	18.200	18.20	55.00	0	1 / 7
alpha-BHC	UG/KG	0.03	0.114	0.19	100.00	0	2 / 7
delta-BHC	UG/KG	0.18	0.225	0.27	490.00	0	2 / 7
gamma-BHC (Lindane)	UG/KG	0.04	0.043	0.04	490.00	0	1 / 7

Chemicals Less Than Screening Value for Soil

AOC 679 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.86	1.653	2.50	2700.00	0	3 / 5
4,4'-DDE	UG/KG	1.20	2.150	3.10	1900.00	0	2 / 5
4,4'-DDT	UG/KG	0.06	0.581	1.10	1900.00	0	5 / 5
Acetone	UG/KG	6.00	13.200	29.00	780000.00	0	5 / 5
Aldrin	UG/KG	0.27	0.270	0.27	38.00	0	1 / 5
Aroclor-1260	UG/KG	27.00	27.000	27.00	83.00	0	1 / 5
Benzo(a)anthracene	UG/KG	60.00	60.000	60.00	880.00	0	1 / 5
Chrysene	UG/KG	50.00	50.000	50.00	88000.00	0	1 / 5
Di-n-butylphthalate	UG/KG	70.00	112.500	220.00	780000.00	0	4 / 5
Dieldrin	UG/KG	0.15	0.427	0.88	40.00	0	4 / 5
Endosulfan 1	UG/KG	0.28	0.280	0.28	47000.00	0	1 / 5
Endosulfan II	UG/KG	0.21	0.210	0.21	47000.00	0	1 / 5
Endosulfan sulfate	UG/KG	0.69	1.196	1.90	47000.00	0	3 / 5
Endrin	UG/KG	0.57	0.807	1.00	2300.00	0	4 / 5
Endrin aldehyde	UG/KG	0.18	0.612	0.90	2300.00	0	5 / 5
Fluoranthene	UG/KG	50.00	55.000	60.00	310000.00	0	2 / 5
Heptachlor	UG/KG	0.11	0.110	0.11	140.00	0	1 / 5
Heptachlor epoxide	UG/KG	0.44	0.440	0.44	70.00	0	1 / 5
Methoxychlor	UG/KG	0.40	1.060	2.00	39000.00	0	3 / 5
Methylene chloride	UG/KG	12.00	17.000	22.00	85000.00	0	2 / 5
Nickel	MG/KG	6.10	6.100	6.10	160.00	0	1 / 5
Phenanthrene	UG/KG	40.00	40.000	40.00	310000.00	0	1 / 5
Pyrene	UG/KG	40.00	65.000	90.00	230000.00	0	2 / 5
Toluene	UG/KG	6.00	6.000	6.00	1600000.00	0	1 / 5
delta-BHC	UG/KG	0.33	0.330	0.33	490.00	0	1 / 5
gamma-BHC (Lindane)	UG/KG	0.37	0.370	0.37	490.00	0	1 / 5

Chemicals Less Than Screening Value for Soil

AOC 681 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
2-Methylnaphthalene	UG/KG	490.00	490.000	490.00	310000.00	0	1 / 2
3-Nitroaniline	UG/KG	250.00	250.000	250.00	23000.00	0	1 / 2
4,4'-DDD	UG/KG	0.25	3.575	6.90	2700.00	0	2 / 2
4,4'-DDE	UG/KG	5.90	5.900	5.90	1900.00	0	1 / 2
4,4'-DDT	UG/KG	0.25	0.250	0.25	1900.00	0	1 / 2
Acenaphthene	UG/KG	3800.00	3800.000	3800.00	470000.00	0	1 / 2
Acetone	UG/KG	54.00	54.000	54.00	780000.00	0	1 / 2
Acetonitrile	UG/KG	47.00	63.500	80.00	47000.00	0	2 / 2
Acetophenone	UG/KG	41.00	41.000	41.00	780000.00	0	1 / 2
Anthracene	UG/KG	4900.00	4900.000	4900.00	2300000.00	0	1 / 2
Benzo(g,h,i)perylene	UG/KG	3800.00	3800.000	3800.00	310000.00	0	1 / 2
Copper	MG/KG	7.00	17.600	28.20	290.00	0	2 / 2
Di-n-butylphthalate	UG/KG	65.00	65.000	65.00	780000.00	0	1 / 2
Dibenzofuran	UG/KG	2000.00	2000.000	2000.00	31000.00	0	1 / 2
Dieldrin	UG/KG	0.19	0.190	0.19	40.00	0	1 / 2
Endosulfan I	UG/KG	0.39	0.390	0.39	47000.00	0	1 / 2
Endosulfan sulfate	UG/KG	1.30	1.300	1.30	47000.00	0	1 / 2
Endrin	UG/KG	5.70	5.700	5.70	2300.00	0	1 / 2
Endrin aldehyde	UG/KG	0.12	1.060	2.00	2300.00	0	2 / 2
Fluorene	UG/KG	3800.00	3800.000	3800.00	310000.00	0	1 / 2
Heptachlor	UG/KG	4.80	4.800	4.80	140.00	0	1 / 2
Heptachlor epoxide	UG/KG	0.22	0.660	1.10	70.00	0	2 / 2
Methylene chloride	UG/KG	5.00	9.000	13.00	85000.00	0	2 / 2
Naphthalene	UG/KG	1500.00	1500.000	1500.00	310000.00	0	1 / 2
beta-BHC	UG/KG	0.33	0.330	0.33	350.00	0	1 / 2
bis(2-Ethylhexyl)phthalate	UG/KG	110.00	110.000	110.00	46000.00	0	1 / 2
delta-BHC	UG/KG	1.00	1.000	1.00	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 687 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.49	0.505	0.52	2700.00	0	2 / 2
4,4'-DDE	UG/KG	0.59	0.845	1.10	1900.00	0	2 / 2
Acetone	UG/KG	22.00	32.500	43.00	780000.00	0	2 / 2
Copper	MG/KG	21.10	23.450	25.80	290.00	0	2 / 2
Dieldrin	UG/KG	0.33	0.330	0.33	40.00	0	1 / 2
Endosulfan I	UG/KG	0.37	0.735	1.10	47000.00	0	2 / 2
Endosulfan II	UG/KG	0.68	1.940	3.20	47000.00	0	2 / 2
Endosulfan sulfate	UG/KG	0.43	0.815	1.20	47000.00	0	2 / 2
Endrin	UG/KG	2.20	2.500	2.80	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.57	0.985	1.40	2300.00	0	2 / 2
Heptachlor	UG/KG	0.36	0.605	0.85	140.00	0	2 / 2
Lead	MG/KG	22.90	25.200	27.50	400.00	0	2 / 2
Methoxychlor	UG/KG	1.60	1.600	1.60	39000.00	0	1 / 2
Nickel	MG/KG	12.40	13.100	13.80	160.00	0	2 / 2
delta-BHC	UG/KG	0.81	0.810	0.81	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 687 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
gamma-BHC (Lindane)	UG/KG	0.57	0.570	0.57	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC 690 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	0.65	5.331	14.50	430.00	0	4 / 6
1234678-HpCDF	PG/G	5.05	5.055	5.05	430.00	0	1 / 6
4,4'-DDD	UG/KG	0.24	0.447	0.56	2700.00	0	4 / 7
4,4'-DDE	UG/KG	0.26	0.470	0.68	1900.00	0	4 / 7
4,4'-DDT	UG/KG	0.40	0.747	1.00	1900.00	0	4 / 7
Acetone	UG/KG	38.00	47.500	66.00	780000.00	0	6 / 7
Aldrin	UG/KG	0.13	0.697	1.20	38.00	0	4 / 7
Benzo(a)anthracene	UG/KG	66.00	88.000	110.00	880.00	0	2 / 7
Chloroform	UG/KG	1.00	2.666	4.00	78000.00	0	3 / 7
Chrysene	UG/KG	88.00	94.000	100.00	88000.00	0	2 / 7
Copper	MG/KG	10.50	15.385	30.20	290.00	0	7 / 7
Di-n-butylphthalate	UG/KG	46.00	90.200	140.00	780000.00	0	5 / 7
Dieldrin	UG/KG	0.13	0.282	0.71	40.00	0	5 / 7
Endosulfan I	UG/KG	0.24	0.815	1.80	47000.00	0	6 / 7
Endosulfan II	UG/KG	0.22	0.274	0.39	47000.00	0	5 / 7
Endrin	UG/KG	0.36	0.811	1.40	2300.00	0	6 / 7
Endrin aldehyde	UG/KG	0.30	0.495	0.75	2300.00	0	4 / 7
Fluoranthene	UG/KG	74.00	80.500	87.00	310000.00	0	2 / 7
Heptachlor	UG/KG	0.07	0.319	0.72	140.00	0	4 / 7
Heptachlor epoxide	UG/KG	0.12	0.338	1.10	70.00	0	5 / 7
Manganese	MG/KG	65.30	77.000	95.80	1092.00	0	4 / 7
Mercury	MG/KG	0.15	0.167	0.20	2.30	0	4 / 7
Methoxychlor	UG/KG	0.97	2.834	4.90	39000.00	0	5 / 7
Methylene chloride	UG/KG	4.00	8.857	18.00	85000.00	0	7 / 7
Nickel	MG/KG	10.70	13.100	18.00	160.00	0	4 / 7
OCDD	PG/G	6.81	76.931	203.35	4300.00	0	6 / 6
Pyrene	UG/KG	68.00	84.000	100.00	230000.00	0	2 / 7
Toluene	UG/KG	8.00	8.000	8.00	1600000.00	0	1 / 7
Vanadium	MG/KG	19.70	22.925	27.00	55.00	0	4 / 7
beta-BHC	UG/KG	0.26	0.628	1.90	350.00	0	6 / 7
bis(2-Ethylhexyl)phthalate	UG/KG	110.00	110.000	110.00	46000.00	0	1 / 7
delta-BHC	UG/KG	0.14	0.215	0.29	490.00	0	2 / 7
gamma-BHC (Lindane)	UG/KG	0.10	0.100	0.10	490.00	0	1 / 7

Chemicals Less Than Screening Value for Soil

AOC DMA Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.60	1.950	3.30	2700.00	0	2 / 2
4,4'-DDE	UG/KG	0.22	2.260	4.30	1900.00	0	2 / 2
4,4'-DDT	UG/KG	0.31	0.655	1.00	1900.00	0	2 / 2
Acetone	UG/KG	18.00	18.000	18.00	780000.00	0	1 / 2
Aldrin	UG/KG	0.32	0.320	0.32	38.00	0	1 / 2
Copper	MG/KG	9.60	19.350	29.10	290.00	0	2 / 2
Dieldrin	UG/KG	0.09	0.277	0.46	40.00	0	2 / 2
Endosulfan I	UG/KG	0.13	0.300	0.47	47000.00	0	2 / 2
Endosulfan II	UG/KG	0.22	0.290	0.36	47000.00	0	2 / 2
Endrin	UG/KG	0.98	0.990	1.00	2300.00	0	2 / 2
Endrin aldehyde	UG/KG	0.20	0.590	0.98	2300.00	0	2 / 2
Heptachlor epoxide	UG/KG	0.30	0.300	0.30	70.00	0	1 / 2
Mercury	MG/KG	0.24	0.240	0.24	2.30	0	1 / 2
Methoxychlor	UG/KG	1.00	1.000	1.00	39000.00	0	1 / 2
Methylene chloride	UG/KG	12.00	14.500	17.00	85000.00	0	2 / 2
Toluene	UG/KG	3.00	11.000	19.00	1600000.00	0	2 / 2
beta-BHC	UG/KG	1.10	1.300	1.50	350.00	0	2 / 2
delta-BHC	UG/KG	0.49	0.490	0.49	490.00	0	1 / 2
gamma-BHC (Lindane)	UG/KG	0.27	0.270	0.27	490.00	0	1 / 2

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.14	1.713	2.60	2700.00	0	3 / 6
4,4'-DDE	UG/KG	0.12	1.856	7.40	1900.00	0	5 / 6
4,4'-DDT	UG/KG	0.09	1.422	5.00	1900.00	0	5 / 6
Acetone	UG/KG	42.00	63.750	110.00	780000.00	0	4 / 6
Aldrin	UG/KG	0.05	0.054	0.05	38.00	0	1 / 6
Anthracene	UG/KG	160.00	160.000	160.00	2300000.00	0	1 / 6
Benzo(a)anthracene	UG/KG	130.00	130.000	130.00	880.00	0	1 / 6
Benzo(a)pyrene	UG/KG	52.00	52.000	52.00	88.00	0	1 / 6
Chromium	MG/KG	7.60	24.450	35.90	39.00	0	4 / 6
Chrysene	UG/KG	140.00	140.000	140.00	88000.00	0	1 / 6
Copper	MG/KG	8.50	9.833	12.40	290.00	0	3 / 6
Di-n-butylphthalate	UG/KG	82.00	110.500	130.00	780000.00	0	4 / 6
Dieldrin	UG/KG	0.13	0.182	0.26	40.00	0	5 / 6
Endosulfan I	UG/KG	0.13	0.496	1.30	47000.00	0	5 / 6
Endosulfan II	UG/KG	0.29	0.290	0.29	47000.00	0	1 / 6
Endosulfan sulfate	UG/KG	0.66	0.815	0.97	47000.00	0	2 / 6
Endrin	UG/KG	0.15	0.387	0.70	2300.00	0	4 / 6
Endrin aldehyde	UG/KG	0.14	0.387	0.62	2300.00	0	4 / 6
Fluoranthene	UG/KG	650.00	650.000	650.00	310000.00	0	1 / 6
Heptachlor	UG/KG	0.05	0.259	0.41	140.00	0	4 / 6
Heptachlor epoxide	UG/KG	0.18	0.536	1.40	70.00	0	5 / 6
Manganese	MG/KG	53.70	54.100	54.50	1092.00	0	2 / 6
Methoxychlor	UG/KG	0.39	0.900	1.70	39000.00	0	3 / 6

Chemicals Less Than Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Methylene chloride	UG/KG	4.00	7.166	13.00	85000.00	0	6 / 6
Nickel	MG/KG	11.30	13.033	16.10	160.00	0	3 / 6
Pyrene	UG/KG	450.00	450.000	450.00	230000.00	0	1 / 6
Toluene	UG/KG	2.00	7.600	21.00	1600000.00	0	5 / 6
Vanadium	MG/KG	10.50	19.050	35.20	55.00	0	6 / 6
alpha-BHC	UG/KG	0.13	0.130	0.13	100.00	0	1 / 6
beta-BHC	UG/KG	0.54	0.580	0.61	350.00	0	3 / 6
delta-BHC	UG/KG	0.07	0.116	0.16	490.00	0	2 / 6
gamma-BHC (Lindane)	UG/KG	0.18	0.226	0.27	490.00	0	3 / 6

Chemicals Less Than Screening Value for Soil

AOC 676 Sampling Unit: 99

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDD	UG/KG	0.53	0.530	0.53	2700.00	0	1 / 1
4,4'-DDE	UG/KG	0.85	0.850	0.85	1900.00	0	1 / 1
4,4'-DDT	UG/KG	0.43	0.430	0.43	1900.00	0	1 / 1
Aldrin	UG/KG	0.11	0.110	0.11	38.00	0	1 / 1
Dieldrin	UG/KG	0.20	0.200	0.20	40.00	0	1 / 1
Endosulfan I	UG/KG	0.43	0.430	0.43	47000.00	0	1 / 1
Endosulfan sulfate	UG/KG	0.33	0.330	0.33	47000.00	0	1 / 1
Endrin	UG/KG	0.42	0.420	0.42	2300.00	0	1 / 1
Endrin aldehyde	UG/KG	0.79	0.790	0.79	2300.00	0	1 / 1
Heptachlor	UG/KG	0.16	0.160	0.16	140.00	0	1 / 1
Heptachlor epoxide	UG/KG	0.05	0.052	0.05	70.00	0	1 / 1
alpha-BHC	UG/KG	0.07	0.076	0.07	100.00	0	1 / 1
beta-BHC	UG/KG	0.48	0.480	0.48	350.00	0	1 / 1
delta-BHC	UG/KG	0.66	0.660	0.66	490.00	0	1 / 1
gamma-BHC (Lindane)	UG/KG	0.32	0.320	0.32	490.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC 677 Sampling Unit: 99

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4,4'-DDT	UG/KG	1.50	1.500	1.50	1900.00	0	1 / 1
Dieldrin	UG/KG	0.95	0.950	0.95	40.00	0	1 / 1
Endosulfan I	UG/KG	4.65	4.650	4.65	47000.00	0	1 / 1
Endosulfan sulfate	UG/KG	2.50	2.500	2.50	47000.00	0	1 / 1
Endrin	UG/KG	3.30	3.300	3.30	2300.00	0	1 / 1
Endrin aldehyde	UG/KG	1.00	1.000	1.00	2300.00	0	1 / 1
delta-BHC	UG/KG	2.35	2.350	2.35	490.00	0	1 / 1

Chemicals Less Than Screening Value for Soil

AOC 690 Sampling Unit: 99

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
1234678-HpCDD	PG/G	24.49	24.499	24.49	430.00	0	1 / 1
1234678-HpCDF	PG/G	4.37	4.379	4.37	430.00	0	1 / 1
123678-HxCDF	PG/G	1.86	1.869	1.86	43.00	0	1 / 1
OCDD	PG/G	284.71	284.718	284.71	4300.00	0	1 / 1
OCDF	PG/G	7.43	7.431	7.43	4300.00	0	1 / 1

Chemicals Of Potential Concern for Soil

SWMU 012 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	3020.00	8189.166	17900.00	7900.00	9	12 / 12
Arsenic	MG/KG	3.70	7.512	14.20	0.37	12	12 / 12
Nickel	MG/KG	12.40	699.525	1076.95	160.00	11	12 / 12

Chemicals Of Potential Concern for Soil

AOC 671 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	3.90	5.850	7.80	0.37	2	2 / 8
Benzo(a)anthracene	UG/KG	1600.00	1600.000	1600.00	880.00	1	1 / 8
Benzo(a)pyrene	UG/KG	690.00	690.000	690.00	88.00	1	1 / 8
Beryllium	MG/KG	0.72	0.720	0.72	0.15	1	1 / 8
N-Nitroso-di-n-propylamine	UG/KG	340.00	340.000	340.00	91.00	1	1 / 8

Chemicals Of Potential Concern for Soil

AOC 672 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	434.15	629.575	825.00	160.00	2	2 / 4

Chemicals Of Potential Concern for Soil

AOC 673 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	8.10	357.300	706.50	160.00	1	2 / 6

Chemicals Of Potential Concern for Soil

AOC 675 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Chromium	MG/KG	70.50	70.500	70.50	39.00	1	1 / 2

Chemicals Of Potential Concern for Soil

AOC 676 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Beryllium	MG/KG	0.62	0.800	0.98	0.15	2	2 / 2

Chemicals Of Potential Concern for Soil

AOC 677 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Benzo(a)pyrene	UG/KG	330.00	330.000	330.00	88.00	1	1 / 9
Chromium	MG/KG	31.20	47.450	63.70	39.00	2	2 / 9

Chemicals Of Potential Concern for Soil

AOC 678 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	1.30	4.350	7.40	0.37	2	2 / 9
Benzo(a)pyrene	UG/KG	45.00	104.666	200.00	88.00	3	3 / 9

Chemicals Of Potential Concern for Soil

AOC 679 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	1.30	1.300	1.30	0.37	1	1 / 11

Chemicals Of Potential Concern for Soil

AOC 681 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Benzo(a)pyrene	UG/KG	51.00	86.666	130.00	88.00	3	3 / 3

Chemicals Of Potential Concern for Soil

AOC 685 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	7.10	9.475	11.20	0.37	4	4 / 9
Benzo(a)pyrene	UG/KG	40.00	145.000	230.00	88.00	4	4 / 9
Beryllium	MG/KG	0.76	0.952	1.20	0.15	9	9 / 9
Chromium	MG/KG	34.10	50.644	78.00	39.00	9	9 / 9
Copper	MG/KG	13.40	218.422	494.00	290.00	5	9 / 9
Lead	MG/KG	24.30	247.042	949.00	400.00	7	7 / 9

Chemicals Of Potential Concern for Soil

AOC 687 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	4565.00	11993.750	19300.00	7900.00	4	4 / 4
Beryllium	MG/KG	0.67	0.780	0.89	0.15	2	2 / 4

Chemicals Of Potential Concern for Soil

AOC 690 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aroclor-1260	UG/KG	87.00	128.500	170.00	83.00	2	2 / 20
Arsenic	MG/KG	5.50	7.200	8.20	0.37	3	3 / 20
Benzo(a)anthracene	UG/KG	46.00	533.166	1500.00	880.00	3	3 / 20
Benzo(a)pyrene	UG/KG	47.00	249.333	1200.00	88.00	6	6 / 20
Beryllium	MG/KG	0.65	0.790	1.15	0.15	5	5 / 20
Dibenzo(a,h)anthracene	UG/KG	130.00	130.000	130.00	88.00	1	1 / 20

Chemicals Of Potential Concern for Soil

AOC DMA Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	787.00	11161.000	23000.00	7900.00	2	4 / 5

Chemicals Of Potential Concern for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	4.00	9.891	19.70	0.37	6	6 / 15
Beryllium	MG/KG	0.73	0.833	0.95	0.15	5	5 / 15
Chromium	MG/KG	8.60	55.875	268.00	39.00	5	8 / 15
Copper	MG/KG	4.20	63.103	556.00	290.00	1	14 / 15

Chemicals Of Potential Concern for Soil

AOC RTC Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Benzo(a)pyrene	UG/KG	140.00	140.000	140.00	88.00	1	1 / 11

Chemicals Of Potential Concern for Soil

AOC 671 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Beryllium	MG/KG	0.86	0.860	0.86	0.15	1	1 / 7
N-Nitrosodimethylamine	UG/KG	52.00	52.000	52.00	13.00	1	1 / 7
Nickel	MG/KG	6.40	584.533	1740.00	160.00	1	3 / 7

Chemicals Of Potential Concern for Soil

AOC 672 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	1060.00	1060.000	1060.00	160.00	1	1 / 4

Chemicals Of Potential Concern for Soil

AOC 673 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Nickel	MG/KG	806.00	806.000	806.00	160.00	1	1 / 2

Chemicals Of Potential Concern for Soil

AOC 676 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Beryllium	MG/KG	0.65	0.770	0.89	0.15	2	2 / 2

Chemicals Of Potential Concern for Soil

AOC 677 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Antimony	MG/KG	9.20	9.200	9.20	3.10	1	1 / 6
Benzo(a)pyrene	UG/KG	51.00	115.500	180.00	88.00	2	2 / 6
Beryllium	MG/KG	0.62	0.856	1.10	0.15	3	3 / 6
Chromium	MG/KG	46.10	46.100	46.10	39.00	1	1 / 6

Chemicals Of Potential Concern for Soil

AOC 678 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	908.00	4599.000	8290.00	7900.00	1	2 / 7
Arsenic	MG/KG	7.00	7.000	7.00	0.37	1	1 / 7
Benzo(a)pyrene	UG/KG	96.00	96.000	96.00	88.00	1	1 / 7
Lead	MG/KG	1.80	157.566	468.00	400.00	1	3 / 7
Mercury	MG/KG	3.10	3.100	3.10	2.30	1	1 / 7

Chemicals Of Potential Concern for Soil

AOC 681 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Dibenzo(a,h)anthracene	UG/KG	1300.00	1300.000	1300.00	88.00	1	1 / 2
Indeno(1,2,3-cd)pyrene	UG/KG	4500.00	4500.000	4500.00	880.00	1	1 / 2

Chemicals Of Potential Concern for Soil

AOC 687 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	27700.00	27800.000	27900.00	7900.00	2	2 / 2
Beryllium	MG/KG	1.10	1.150	1.20	0.15	2	2 / 2
Vanadium	MG/KG	61.00	66.500	72.00	55.00	2	2 / 2

Chemicals Of Potential Concern for Soil

AOC 690 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	4.20	5.175	7.10	0.37	4	4 / 7
Benzo(a)pyrene	UG/KG	110.00	110.000	110.00	88.00	1	1 / 7
Beryllium	MG/KG	0.89	0.890	0.89	0.15	1	1 / 7

Chemicals Of Potential Concern for Soil

AOC DMA Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Aluminum	MG/KG	4520.00	18860.000	33200.00	7900.00	2	2 / 2
Vanadium	MG/KG	18.40	42.300	66.20	55.00	1	2 / 2

Chemicals Of Potential Concern for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Arsenic	MG/KG	3.50	3.800	4.10	0.37	2	2 / 6

Chemicals With No Screening Value for Soil

SWMU 012 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	3040.00	6584.583	14900.00	0.00	0	12 / 12
Potassium	MG/KG	728.00	1143.500	1630.00	0.00	0	12 / 12

Chemicals With No Screening Value for Soil

AOC 671 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	607.00	938.416	1400.00	0.00	0	6 / 8

Chemicals With No Screening Value for Soil

AOC 672 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	984.00	1118.500	1380.00	0.00	0	4 / 4

Chemicals With No Screening Value for Soil

AOC 673 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	868.00	1022.750	1370.00	0.00	0	6 / 6

Chemicals With No Screening Value for Soil

AOC 675 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	856.00	856.000	856.00	0.00	0	1 / 2

Chemicals With No Screening Value for Soil

AOC 676 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	830.00	830.000	830.00	0.00	0	1 / 2

Chemicals With No Screening Value for Soil

AOC 677 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	613.00	793.500	974.00	0.00	0	2 / 9

Chemicals With No Screening Value for Soil

AOC 678 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Iron	MG/KG	2920.00	3230.000	3540.00	0.00	0	2 / 9
Potassium	MG/KG	1240.00	1240.000	1240.00	0.00	0	1 / 9

Chemicals With No Screening Value for Soil

AOC 679 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Famphur	UG/KG	7.10	7.100	7.10	0.00	0	1 / 11
Iron	MG/KG	2790.00	3037.500	3285.00	0.00	0	2 / 11
Methapyrilene	UG/KG	50.00	50.000	50.00	0.00	0	1 / 11

Chemicals With No Screening Value for Soil

AOC 681 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	754.00	800.500	847.00	0.00	0	2 / 3

Chemicals With No Screening Value for Soil

AOC 685 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1040.00	1438.888	2010.00	0.00	0	9 / 9

Chemicals With No Screening Value for Soil

AOC 687 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Magnesium	MG/KG	1990.00	2540.000	3260.00	0.00	0	3 / 4
Potassium	MG/KG	1130.00	1443.333	1780.00	0.00	0	3 / 4

Chemicals With No Screening Value for Soil

AOC 690 Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
4-Aminobiphenyl	UG/KG	60.00	60.000	60.00	0.00	0	1 / 20
Potassium	MG/KG	818.00	1392.312	2340.00	0.00	0	16 / 20

Chemicals With No Screening Value for Soil

AOC DMA Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	2230.00	2465.000	2785.00	0.00	0	3 / 5

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 01

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	675.00	1750.333	2730.00	0.00	0	9 / 15

Chemicals With No Screening Value for Soil

AOC 671 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	670.00	1393.666	2210.00	0.00	0	6 / 7

Chemicals With No Screening Value for Soil

AOC 672 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1220.00	1403.333	1580.00	0.00	0	3 / 4

Chemicals With No Screening Value for Soil

AOC 673 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1200.00	1280.000	1360.00	0.00	0	2 / 2

Chemicals With No Screening Value for Soil

AOC 676 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1290.00	1540.000	1790.00	0.00	0	2 / 2

Chemicals With No Screening Value for Soil

AOC 677 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	952.00	1458.666	2620.00	0.00	0	6 / 6

Chemicals With No Screening Value for Soil

AOC 678 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Famphur	UG/KG	5.70	5.700	5.70	0.00	0	1 / 7
Iron	MG/KG	1930.00	6915.000	11900.00	0.00	0	2 / 7
Potassium	MG/KG	1030.00	1030.000	1030.00	0.00	0	1 / 7

Chemicals With No Screening Value for Soil

AOC 681 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	859.00	859.000	859.00	0.00	0	1 / 2

Chemicals With No Screening Value for Soil

AOC 687 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Magnesium	MG/KG	3220.00	3480.000	3740.00	0.00	0	2 / 2
Potassium	MG/KG	1800.00	1865.000	1930.00	0.00	0	2 / 2

Chemicals With No Screening Value for Soil

AOC 690 Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1230.00	1698.571	2200.00	0.00	0	7 / 7

Chemicals With No Screening Value for Soil

AOC DMA Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	1180.00	1820.000	2460.00	0.00	0	2 / 2

Chemicals With No Screening Value for Soil

AOC GRD Sampling Unit: 02

Parameter	Units	Detects Minimum	Detects Average	Detects Maximum	Screening Value	# Over Screen	Detect / Total
Potassium	MG/KG	930.00	1757.500	2560.00	0.00	0	4 / 6

Tuesday, June 13, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6:00 PM NORTHWOODS ATRIUM (Best Western) off Interstate 26 at Ashley Phosphate Road

RAB members, BRAC Cleanup Team, on hand to informally discuss cleanup topics.

7:00 PM Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Summary of RAB brainstorming session — Mrs. Pat Franklin

D. Environmental Cleanup Progress Report — Mr. Tony Hunt
Summary of Zone H Sampling Findings

E. Update on Environmental Impact Statement — Mr. Bobby Dearhart

F. Update on Redevelopment Authority — Mr. Virgil Johnston

G. Report on Asbestos Survey and Cleanup — Mr. Marty Oliver

H. Report on Storage Tank removals and cleanup — Mr. Andy Hutto

I. Public Relations Subcommittee Report — Mrs. Pat Franklin

J. Training Subcommittee Report — Mr. Bobby Dearhart

K. Remaining Questions and Comments from Visitors

L. Other Business (Funds for RAB Training),Announcements

Please mark your calendar: Our next meeting is Tuesday, July 11 at the Northwoods Atrium, same schedule as this month.

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

ACQUISITION AND TECHNOLOGY

26 MAY 1995

DUSD(ES)/CL

MEMORANDUM FOR RESTORATION ADVISORY BOARD (RAB) MEMBERS

SUBJECT: Technical Assistance for Public Participation in the Defense Environmental Restoration Program--Federal Register Notice of Request for Comments

The FY1995 National Defense Authorization Act gave DoD new authority to provide technical assistance funding to citizens affected by the environmental restoration of DoD facilities. A working group comprised of representatives of the Secretary of Defense, the military departments and defense agencies has been working over the past 6 months to identify options for providing this assistance. The working group identified three options:

Option A: Use EPA's Technical Assistance Grant Mechanism
Option B: Procure One or More Technical Assistance Providers
Option C: Issue Purchase Orders to Assistance Providers.

The enclosed Federal Register Notice describes each option, and solicits comments from the public. Comments are due by July 24, 1995. Once comments are considered, and we identify a preferred option, we intend to publish in the Federal Register an interim rule outlining how citizens may apply for technical assistance.

Since you are involved in a Restoration Advisory Board (RAB), I felt you should have a copy of the notice, for information, and comment should you choose to do so. Please share this notice with others who may want to comment, especially the community co-chair of your RAB, and other citizen members.

Patricia L. Fowler
for Patricia A. Rivers
Assistant Deputy Under Secretary of Defense
(Environmental Cleanup)

Enclosure

cc: Community RAB Members

expense of $200,000 on research to test a [illegible]duct in response to requirements imposed [illegible]he United States Food and Drug [illegible]ministration (FDA). X is able to show that, even though country Y imposes certain testing requirements on pharmaceutical products, the research performed in the United States is not accepted by country Y for purposes of its own licensing requirements, and the research has minimal use abroad. X is further able to show that its FSC sells goods to countries which do not accept or do not require research performed in the United States for purposes of their own licensing standards.

(ii) *Allocation.* Since X's research expense of $200,000 is undertaken to meet the requirements of the United States Food and Drug Administration, and since it is reasonable to expect that the expenditure [illegible] *minimis* amounts) outside the United States, the deduction is definitely related and thus allocable to the residual grouping.

(iii) *Apportionment.* No apportionment is necessary since the entire expense is allocated to the residual grouping, general limitation gross income from sales within the United States.

Example 8—Research and Experimentation—(i) *Facts.* X, a domestic corporation, is engaged in continuous research and experimentation to improve the quality of the products that it manufactures and sells, which are floodlights, flashlights, fuse boxes, and solderless connectors. X [illegible]rs and deducts $100,000 of expenditure [illegible]search and experimentation in 1997 [illegible]h was performed exclusively in the United States. As a result of this research activity, X acquires patents which it uses in its own manufacturing activity. X licenses its floodlight patent to Y and Z, uncontrolled foreign corporations, for use in their own territories, countries Y and Z, respectively. Corporation Y pays X an arm's length royalty of $3,000 plus $0.20 for each floodlight sold. Sales of floodlights by Y for the taxable year are $135,000 (at $4.50 per unit) or 30,000 units, and the royalty is $9,000 ($3,000+$0.20×30,000). Y has sales of other products of $500,000. Z pays X an arm's length royalty of $3,000 plus $0.30 for each unit sold. Z manufactures 30,000 floodlights in the taxable year, and the royalty is $12,000 ($3,000+$0.30×30,000). The dollar value of Z's floodlight sales is not known and cannot be reasonably estimated because, in this case, the floodlights are not sold separately by Z but are instead used as a component in Z's manufacture of lighting equipment for theaters. The sales of all Z's products, including the lighting equipment for theaters, are $1,000,000. Y and Z each sell the floodlights exclusively within their respective countries. X's sales of floodlights for the taxable year are $500,000 and its sales of its other products, flashlights, fuse boxes, and solderless connectors, are $400,000. X has gross income of $500,000, consisting of gross income from domestic sources of $[illegible]000, and royalty income of $9,000 and $[illegible]0 from foreign corporations Y and Z re[illegible]tively.

(ii) *Allocation.* X's research and experimental expenses are definitely related to all of the products that it produces, which are floodlights, flashlights, fuse boxes, and solderless connectors. All of these products are in the same three digit SIC Code category, Electric Lighting and Wiring Equipment (SIC Industry Group 364). Thus, X's research and experimental expenses are allocable to all items of income attributable to this product category, domestic sales income and royalty income from the foreign countries in which corporations Y and Z operate.

(iii) *Apportionment.* (A) The statutory grouping of gross income is general limitation income from sources without the United States. The residual grouping is general limitation gross income from sources within the United States. X's deduction of $100,000 for its research expenditures must be apportioned between the groupings. For apportionment on the basis of sales in accordance with paragraph (e)(3)(ii) of this section, X is entitled to an exclusive apportionment of 50 percent of its research and experimental expense to the residual grouping, general limitation gross income from sources within the United States, since more than 50 percent of the research activity was performed in the United States. The remaining 50 percent of the deduction can then be apportioned between the residual and statutory groupings on the basis of sales. Since Y and Z are unrelated licensees of X, only their sales of the licensed product, floodlights, are included for purposes of apportionment. Floodlight sales of Z are unknown, but are estimated at ten times royalties from Z, or $120,000. All of X's sales from the entire product category are included for purposes of apportionment on the basis of sales. Alternatively, X may apportion its deduction on the basis of gross income, in accordance with paragraph (e)(3)(iii) of this section. The apportionment is as follows:

(*1*) *Tentative Apportionment on the basis of sales.*

(*i*) Research and experimental expense to be apportioned between statutory and residual groupings of gross income: $100,000.

(*ii*) Less: Exclusive apportionment of research and experimental expense to the residual groupings of gross income ($100,000 x 50 percent): $50,000.

(*iii*) Research and experimental expense to be apportioned between the statutory and residual groupings of gross income on the basis of sales: $50,000.

(*iv*) Apportionment of research and experimental expense to the residual groupings of gross income ($50,000×$900,000/($900,000+$135,000+$120,000)): $38,961.

(*v*) Apportionment of research and experimental expense to the statutory grouping, royalty income from countries Y and Z ($50,000×$135,000+$120,000/($900,000+$135,000+$120,000)): $11,039.

(*vi*) Total apportioned deduction for research and experimentation: $100,000.

(*vii*) Amount apportioned to the residual grouping ($50,000+$38,961): $88,961.

(*viii*) Apportioned to the statutory grouping of sources within countries Y and Z: $11,039.

(*2*) *Tentative apportionment on gross income basis.*

(*i*) Apportionment of research and experimental expense to the residual grouping of gross income ($100,000×$479,000/$500,000): $95,800.

(*ii*) Apportionment of research and experimental expense to the statutory grouping of gross income ($100,000×$9,000+$12,000/$500,000): $4,200.

(*iii*) Amount apportioned to the residual grouping: $95,800.

(*iv*) Amount apportioned to the statutory grouping of general limitation income from sources without the United States: $4,200.

(B) Since X's apportionment on the basis of gross income to the statutory grouping, $4,200, is less than 50 percent of its apportionment on the basis of sales to the statutory grouping, $11,039 it may use Option two of paragraph (e)(3)(iii)(B) of this section and apportion $5,520 (50 percent of $11,039) to the statutory group[illegible]

Examples (9) through *(16)*—[Reserved]

* * * * *

Example (23)—[Reserved]

* * * * *

Margaret Milner Richardson,

Commissioner of Internal Revenue.

[FR Doc. 95-12621 Filed 5-19-95; 9:25 am]

BILLING CODE 4830-01-U

DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 203

Technical Assistance for Public Participation

AGENCY: Department of Defense, Office of the Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)).

ACTION: Notice of request for comments.

SUMMARY: Consistent with section 326 of The National Defense Authorization Act for Fiscal Year 1995 (NDAA-95), the Department of Defense intends to publish interim rules for providing technical assistance funding to citizens affected by the environmental restoration of Department of Defense facilities. This request for comments discusses and solicits comments on several options the Department of Defense is considering for providing assistance to community members of Technical Review Committee (TRCs) and Restoration Advisory Boards (RABs) to obtain technical advisors and facilitate the participation of these members and affected citizens in environmental restoration activities at their associated installations. The Department of Defense will consider these comments in formulating an Interim Final Rule.

DATES: Written comments must be received on or before July 24, 1995.

ADDRESSES: Send written comments to the Office of the Deputy Under Secretary of Defense for Environmental Security/Cleanup, 3400 Defense Pentagon, Washington, DC 20301-3400.

FOR FURTHER INFORMATION CONTACT: Patricia Ferrebee or Marcia Read, telephone (703) 697-7475.

SUPPLEMENTARY INFORMATION: Today's request for comments has the following sections:

I. Background
II. Options for Providing Assistance
III. Requests for Comments

I. Background

The Department of Defense is engaged in environmental investigations, removal actions, treatability studies, community relations efforts, interim remedial actions, cleanups, and operation and maintenance activities at approximately 1800 active installations, 70 closing installations, and 2200 formerly utilized defense properties in the United States under the Defense Environmental Restoration Program (DERP, 10 USC Chapter 160).

The Department of Defense has issued policy for establishing Restoration Advisory Boards (RABs) at all installations. On September 9, 1993, the Department of Defense issued policy for establishing RABs at installations designated for closure or realignment under Base Realignment and Closure (BRAC) Acts of 1988 and 1990 where property will be available for transfer the community. On April 14, 1994, the Department of Defense issued RAB policy for non-closing installations as part of Management Guidance for Execution of the FY94/95 and Development of the FY96 Defense Environmental Restoration Program. The policy called for the establishment of RABs at Department of Defense installations where there is sufficient, sustained community interest. Criteria for determining sufficient interest are: (1) A government requests that a RAB be formed; (2) fifty local residents sign a petition requesting that a RAB be formed; or (3) an installation determines that a RAB is needed. On September 27, 1994, the Department of Defense and the Environmental Protection Agency (EPA) issued joint RAB guidelines on how to develop and implement a RAB. The guidelines are now in effect for all installations.

The purpose of a RAB is to bring together people who reflect the diverse interests within the local community, enabling the early and continual flow of information between the affected community, the military installation, and environmental oversight agencies. The Department of Defense has established, or is in the process of establishing, RABs to ensure that all stakeholders have a voice and can actively participate in a timely and thorough manner in the review of environmental restoration activities and projects at an intallation. RAB community members provide advice as individuals to the decision-makers on restoration issues. This forum is used for the expression and careful consideration of diverse points of view. The RAB complements other community involvement efforts, but does not replace them.

On October 5, 1994, Congress passed the National Defense Authorization Act for Fiscal Year 1995 (NDAA-95, Public Law 103-337), which contained specific provisions for RABs (amending 10 USC 2705 which contains requirements for Technical Review Committees (TRCs) under the Superfund Amendments and Reauthorization Act). Section 326(a) [Section 2705(d)(2)] of the NDAA-95 requires the Secretary of Defense to prescribe regulations on the characteristics, composition, funding, and establishment of RABs. Section 326(b) of the NDAA [Section 2705(e)(2)(C)] authorizes the Department of Defense to make funds available to community members of TRCs and RABs to: (1) Obtain technical assistance in interpreting scientific and engineering issues with regard to the nature of environmental hazards at an installation and the restoration activities proposed for or conducted at the installation; and (2) assist such members and affected citizens to participate more effectively in environmental restoration activities at the installation. Section 326(b) [Section 2705(e)(3)(A) and (B)] specifies that funds for community members of TRCs and RABs at closing and non-closing installations be provided from the BRAC and Defense Environmental Restoration Account (DERA), respectively, and that the total amount of funds from these accounts not exceed $7,500,000. This paragraph [Section 2705(e)(2)(B) and (C)] further states that funding can be given to TRC and RAB members only if they reside in the vicinity of the installation and are not potentially responsible parties.

The Department of Defense has developed a number of options for providing technical and public participation assistance to community members of TRCs and RABs. The Department of Defense is issuing this request for comments to notify the public of its efforts, and to solicit comments on a number of promising funding options. The Department of Defense will publish an interim rule specifying available funding mechanisms after considering any comments received.

II. Options for Providing Assistance

The Department of Defense is seeking to provide technical and public participation assistance to community members of TRCs and RABs at its facilities in the most efficient manner. Technical assistance under this program means the provision of technical advisors, facilitators, mediators, and educators. Public participation assistance means the provision of training and related expenses. Three options are being considered for providing expeditious assistance to TRCs and RABs. These options are described separately in the following sections, but are not mutually exclusive.

Option A: Use EPA TAG and TOSC Mechanisms

This option for providing assistance to community members of TRCs and RABs at Department of Defense facilities involves the use of existing vehicles under EPA's Technical Assistance Grant (TAG) and Technical Outreach Services to Communities (TOSC) program. The TAG program provides funds for qualified citizens' groups affected by a site on EPA's National Priorities List (NPL) to hire independent technical advisors to help interpret and comment on site-related information. Under this option, the Department of Defense and EPA would sign a Memorandum of Understanding (MOU) authorizing EPA to provide additional assistance to community organizations subject to existing TAG regulations. EPA Regional TAG specialists would provide outreach to community members of TRCs, RABs, or other members of the community desiring technical assistance and would assist them througbout the application process and during the post-award administration phase. The Department of Defense would reimburse EPA for all awarded TAGs at Department of Defense facilities. Under this option, community members at NPL installations would obtain funds directly for technical assistance. Under this option, the TAG regulations published in the **Federal Register** on October 1, 1992, page 45311 through 45321, and recorded in 40 CFR Part 35, Subpart M, would be followed. These regulations allow for one TAG award per NPL facility but would not preclude the same community group from applying for additional technical assistance.

The TOSC is a pilot program funded by EPA to provide communities affected by hazardous waste sites with a variety of technical support services. The TOSC

program complements EPA's TAG program by serving as a mechanism for providing technical assistance to communities near non-NPL hazardous waste sites. The TOSC program provides services to communities through five geographically-based Hazardous Substance Research Centers (HSRCs) created in 1986. Each HSRC is a consortium of universities which supports two EPA Regions (i.e. Regions 1&2, 3&4, 5&6, 7&8, 9&10). Each HSRC provides independent technical resources and services that are flexible and tailored to the identified needs of a community. HSRC researchers and professionals are available to conduct technical and educational programs in a community, assist in the review of technical documents, provide comments on proposed actions, and answer questions. Under this option, the Department of Defense and EPA would sign an MOU that makes the TOSC program available to community members of TRCs, RABs, and other community groups through EPA Superfund Regional Community Relations Staff. EPA Regional Community Relations Staff would provide outreach near a Department of Defense facility to community members desiring TOSC support, would review proposals for assistance from community members, and would work with them throughout the approval and post-approval process. The Department of Defense would reimburse EPA for TOSC service rendered. Under this option, community members of TRCs and RABs at non-NPL installations would obtain technical advisors and related services from designated HSRCs.

Option B: Procure One or More Technical Assistance Providers

This option would involve the competitive procurement of one or more independent technical assistance providers to provide technical and public participation assistance to community members of TRCs and RABs at Department of Defense facilities. This assistance would be above the administrative support to TRCs and RABs already provided by the installations. One or more technical assistance providers would provide this assistance and would carry out many of the administrative and financial management requirements associated with a technical and public participation assistance program. An announcement, a procurement for technical assistance providers, would be made via the Federal Register in conjunction with the publication of the Interim Final Rule mentioned in Section I. Actual awards to one or more qualified technical assistance providers would be made via grants or cooperative agreements based on the results of an independent selection process. Recent experience with a similar grants process in the Department of Defense suggests that this option will involve a five or six month procurement process beginning with a formal announcement of a competition in the Federal Register and ending with awards to technical assistance providers.

At a later date, the Department of Defense plans a Federal Register announcement requesting expressions of interest to serve as a technical assistance provider. As indicated in that announcement, the technical assistance provider would provide technical assistance and public participation assistance to community members of TRCs and RABs. The provider would be responsible for receiving, evaluating, and making recommendations on applications from RABs for support and for providing the applications to the appropriate DoD approving official based on DoD established criteria. Once the approving official has selected the applications, the technical assistance provider would assume full responsibility for ensuring that the technical services and public participation support provided are delivered in a timely and effective manner to community members of TRCs and RABs, and that all funds are managed and dispersed in full compliance with appropriate Department of Defense regulations. The technical assistance provider would be responsible for supporting TRC and RAB requests nationwide or within a particular geographic area. Minimum qualifications for a technical assistance provider are:

(1) Perceived as neutral and credible.

(2) Either have or be able to obtain an interdisciplinary staff with demonstrated expertise in hazardous substance remediation, investigation, management and/or research.

(3) Management capability, for both financial and scientific management, and a demonstrated skill in planning and scheduling projects of comparable magnitude to that discussed in this Announcement.

(4) Ability to provide facilitation and mediation services.

(5) Knowledge and experience in environmental restoration activities preferably at federal facilities.

(6) A demonstrated ability to disseminate results of hazardous substance information through an interdisciplinary program to locally affected and concerned citizens.

(7) The ability to perform the required tasks either nationally or within a defined geographic area.

(8) Not-for-profit.

Under this option, community members of TRCs and RABs would be responsible for making requests to the community co-chair or designated members of the TRC or RAB responsible for applying to the designated technical assistance provider for assistance and for preparing facility specific statements describing the type and level of support requested. The technical assistance provider would be responsible for allocating available resources among these competing requests using general guidelines and established criteria provided by Department of Defense.

Option C: Issue Purchase Orders to Assistance Providers

This option would involve the issuance of purchase orders to technical and public participation assistance providers up to the allowable government purchase limit per purchase order (now at $25,000). If multiple purchase orders were needed to assist community members of a particular TRC or RAB, the combined sum of these purchase orders could not exceed a specified allotment. Qualified assistance providers would be selected by the community members of a TRC or RAB at each Department of Defense facility using guidelines provided by the Department of Defense. Under this option, community members of the TRC or RAB would provide a description of the services it is requesting to a Department of Defense contracting office, along with a cost estimate, and would identify the assistance provider and the provider's statement of qualifications. A minimum set of organizational qualifications for receiving a purchase order would be specified under this option by the Department of Defense. These qualifications would be promulgated as part of an Interim Final Rule.

Under all options described in the preceding sections, the local installations will continue to be responsible for providing administrative support in accordance with joint EPA and Department of Defense Restoration Advisory Board Implementation Guidelines issued September 27, 1994.

III. Requests for Comments

Today the Department of Defense solicits comments on the options for providing technical and public participation assistance to community members of RABs or TRCs. Each of the options described in Section II of this notice have strengths and weaknesses

Option A is the most timely option with the advantage of using existing EPA mechanisms to provide support, but also has the attached limitations of the TAG and TOSC programs as to the type of support which could be provided. Option B would procure independent technical assistance providers for the program and would relieve community members of TRCs and RABs of much of the administrative burden associated with managing government grants; however, it requires the time needed for a competitive procurement and does not provide the funds directly to community members of TRCs and RABs. Option C allows greater control and flexibility by community members, but imposes greater administrative burdens on community members of TRCs and RABs and on the contracting office issuing the purchase order. The Department of Defense is interested in determining the opinions of affected citizens and groups on these options. This would include preferences for particular options over others. It would also include comments on the individual options and the components of those options as described in Section II. There also exists the possibility of combining one or more of the Section II options. The Department of Defense solicits any comments or suggestions regarding option combinations. The Department of Defense also solicits comments on specific aspects of each option as well as on additional options desired to provide for technical and public participation assistance.

Within the options are specific items for which the Department of Defense solicits comments. These include the qualifications given for the independent technical assistance providers described in Option B. Comments on either the list of qualifications provided or on additional qualifications which should be added are encouraged. Both Options A and B have provisions for the division of the country into geographic areas with different service providers for each area. Do those commenting have preferences regarding nationwide versus regionalized coverage by service providers for these options? All options will be subject to an allotment cap. Do those commenting have suggestions as to the size of such a cap or the criteria which should be use to establish a cap? The Department of Defense has developed a list of public participation services it believes should be provided under Options B and C in addition to hiring technical advisors, facilitators, mediators and educators. These services are: translation and interpretation; training; transportation to meetings; and payment of approved travel. Comments on these or other services to be included under Options B and C are encouraged.

Dated: May 18, 1995.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 95-12628 Filed 5-23-95; 8:45 am]

BILLING CODE 5000-04-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 165

[CGD13-90-028]

RIN 2115-AE06

Regulated Navigation Area: Puget Sound and Strait of Juan de Fuca, WA; Grays Harbor, WA; Columbia River & Willamette River OR; Yaquina Bay, OR; Umpqua River, OR; Coos Bay, OR

AGENCY: Coast Guard, DOT.

ACTION: Notice of termination.

SUMMARY: This rulemaking project was initiated to adopt regulations requiring an emergency tow-wire on tank barges while transiting certain port areas of the Pacific Northwest. The project is no longer necessary because the Coast Guard issued separate regulations on December 22, 1993, which require an emergency tow wire or tow line on all offshore oil barges. The Coast Guard is therefore terminating further rulemaking under docket number CGD13-90-028.

FOR FURTHER INFORMATION CONTACT: LCDR J. Bigley or LTJG M. L. Kammerer, Thirteenth Coast Guard District, Port Safety and Security Branch, (206) 220-7210.

SUPPLEMENTARY INFORMATION: On May 22, 1990, the Coast Guard published a "Request for comments; notice of hearing" at 55 FR 21044 seeking public comment on six navigation safety initiatives for port areas in the Pacific Northwest. These six safety initiatives involved the use of tug escorts, emergency towing plans, speed criteria, additional bridge personnel, emergency tow-wire requirements for tank barges, and requirements for extended pilotage. A public hearing was held on June 22, 1990, in Seattle, Washington, to hear comments on the six initiatives and alternative courses of action. The comments pertaining to emergency tow-wire requirements for tank barges were addressed and incorporated in a notice of proposed rulemaking (NPRM) published on October 24, 1991 at 56 FR 55104.

The rule proposed by the October 24, 1991, NPRM would have required all tank barges to carry an emergency tow-wire while transiting certain port areas of the Pacific Northwest. This rule was proposed in response to the growing concerns of the citizens of Washington and Oregon that regulatory action was necessary to prevent the discharge of oil or other hazardous substances during transportation. The proposed rule was intended to enhance navigation safety, thereby reducing the risk of pollution and environmental damage from collisions and groundings.

Subsequent to publication of the October 24, 1991 NPRM, the Coast Guard issued regulations requiring that all offshore oil barges carry an emergency tow wire or tow line (December 22, 1993, 58 FR 67966). These separate regulations became effective on January 21, 1994, and are codified at 33 CFR 155.230. Because these separate regulations adequately addressed the same issue addressed by the proposed rule, the proposed rule has become unnecessary, and the Coast Guard is terminating further rulemaking under docket number CGD13-90-028.

Dated: May 16, 1995.

John A. Pierson,

Captain, U.S. Coast Guard, Commander, Thirteenth Coast Guard District, Acting.

[FR Doc. 95-12735 Filed 5-23-95; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[KY-63-6927b; FRL-51648-8]

Approval and Promulgation of Implementation Plans State: Kentucky Approval of Revisions to State Implementation Plan (SIP)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve a revision to the state implementation plan (SIP) submitted by the Commonwealth of Kentucky through the Natural Resources and Environmental Protection Cabinet (Cabinet). This revision will incorporate into the SIP an operating permit issued to the Calgon Carbon Corporation located in the Kentucky portion of the Ashland/Huntington ozone (O_3) nonattainment area. This permit will reduce the emissions of volatile organic compounds (VOCs) by requiring reasonably available control technology

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR MAY 1995
RAB MEETING
13 JUNE 95

INVESTIGATIVE ZONES

Zones:
A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Investigation only, no change from April)
  Fully funded: Zones A, B, C, H, I
  Funded through December of 1995: Zone E
  Funded for RFI Work Plans only: Zones J, L

- Remaining to fund for investigation (through CMS)
  Zone E from beginning of 2nd qtr FY 96 to completion
  Zones J and L implementation
  All portions of investigation for Zones D, F, G and K

PROGRESS FOR MAY

- No additional sites were discovered in May. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	204
Total	399
No Further Investigation at this time	165
Total to investigate	234

- Resolution on outstanding items with Volumes I through V (all volumes) of the RFA have been submitted to SCDHEC and EPA for final approval.

- Zone E Draft Final work plan comments have been received, addressed and the document has been resubmitted for final approval.

- Zone A and B (combined) Draft Final work plans have been submitted for regulatory review.

- Obtained CAMP approval.

- Zone C and I field work continues, the following table provides a status.

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Wipe
Zone H	800/800	288/292	13/13	4/4	0
Zone I	184/184	55/55	13/22	0/5	18/18
Zone C	204/218	8/31	13/13	7/14	0

PROJECTED ACTIVITY FOR JUNE

- Submit Zones J and L work plans for regulatory review.

- Continue Zone C and I field work.

- Submit RFI report for Zone H.

DETERMINING CONTAMINANTS of CONCERN

- Field sampling and data validation

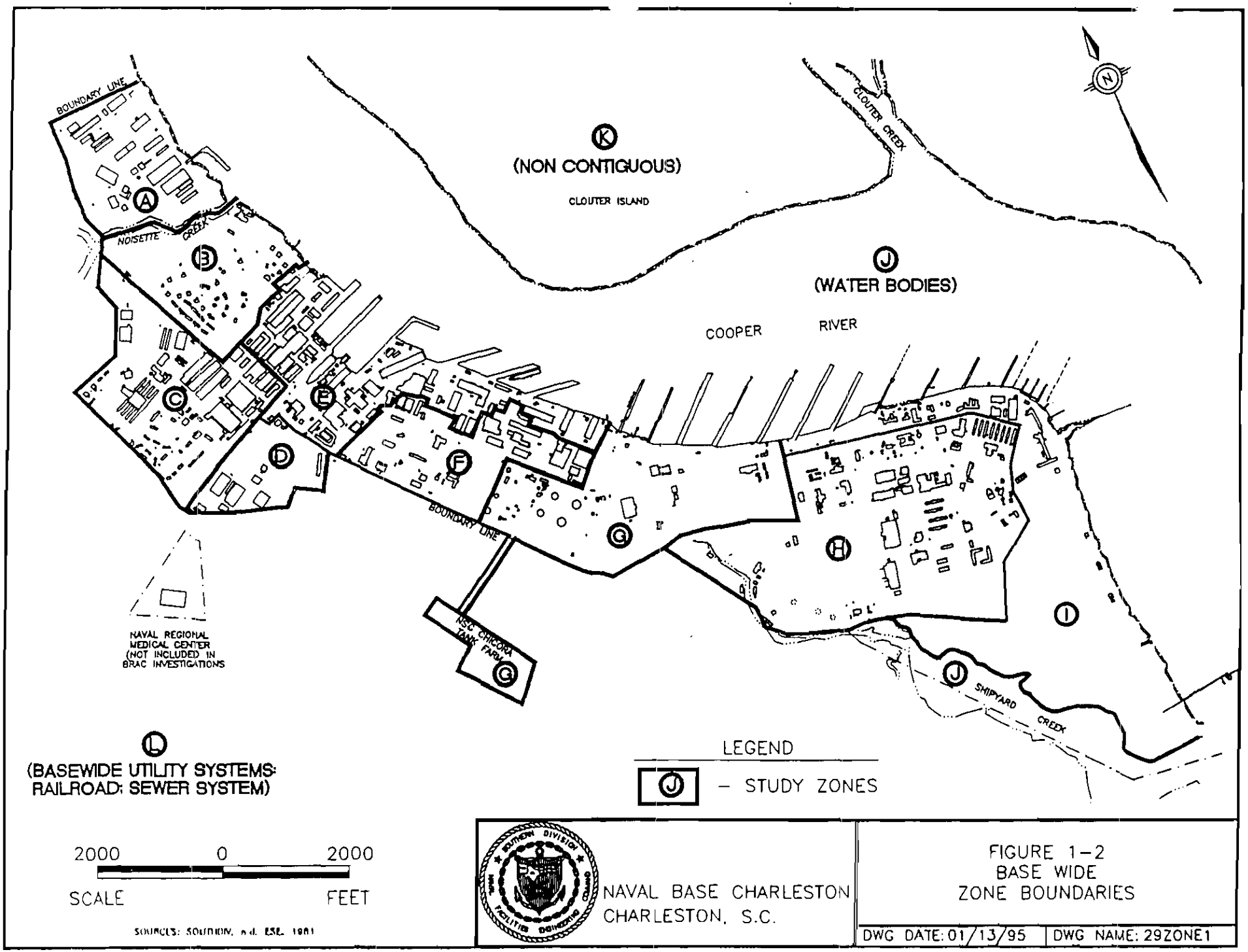
- Determine background

- Identify contaminants of potential concern

- Perform risk assessment

SUMMARY

- Funding Delay Impact
  - Zones D, F, and G - 4 week delay in start of work plan
  - Zone L - 4 to 5 week delay in implementation of field work
- Zone H report issues being resolved
- Zone C & I field work continues on schedule


BOUNDARY LINE
NOISETTE CREEK
A
B
C
D
E
F
G
H
I
J
K
(NON CONTIGUOUS)
CLOUTER ISLAND
CLOUTER CREEK
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NAVAL REGIONAL MEDICAL CENTER (NOT INCLUDED IN BRAC INVESTIGATIONS
NSC CHICORA TANK FARM
SHIPYARD CREEK
L
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
J - STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES: SOUTHDIV, n.d. ESE, 1991
NAVAL BASE CHARLESTON
CHARLESTON, S.C.
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE: 01/13/95
DWG NAME: 29ZONE1

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of May 9, 1995

1. Call to Order. The meeting was called to order by Ms. Jacquelyn White, Co-Chairperson. She asked that members of the RAB and guests introduce themselves.

2. Introduction of the RAB.

Ms. Jacquelyn White	Captain Jim Augustin
Mr. Doyle Brittain	Ms. Jane Settle
LCDR Nick Cimorelli	Mr. Wilburn Gilliard
Mrs. Pat Franklin	Mr. Arthur Pinckney
Ms. Ann Ragan	Ms. Wannetta Mallette
Mr. Ralph Laney	Mr. Van Robinson
Mr. Lou Mintz	Ms. Jeri Johnson, RDA

3. Introduction of the Guests.

Mr. Tony Hunt	SOUTHNAVFAC
Ms. Thuane Fielding	SOUTHNAVFAC
Mr. Bill Hill	SOUTHNAVFAC
LCDR Jim Berotti	SOUTHNAVFAC
Mr. Carl Livingston	SOUTHNAVFAC
CAPT W. F. Nold	CHASNAVSHIPYD
Mr. N. F. Johnson	CHASNAVSHIPYD
LT Donna Murphy	Chasn Naval Base Public Affairs Officer
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Mr. Paul Stoddard	EnSafe/Allen & Hoshall
Mr. Sam Weatherford	EnSafe/Allen & Hoshall
Mrs. June Brittain	Concerned Citizen
Mr. Ray Anderson	Concerned Citizen
Mr. William Klein	Life Cycle Engineering
Mr. Oliver Jones	US Energy
Mr. P.W. Albenesius	US Energy
Mr. Jerry Brown	World Wind Heating
Ms. Miranda Smith	WCBD-TV
Mr. Don Stanks	WCBD-TV

4. Comments on Minutes and Opening Administrative Remarks.

Ms. White asked for comments on the minutes. There were none. The minutes were accepted and will be placed in the repositories.

5. Observations, Concerns of RAB Members.

As a follow-up to last month's RAB meeting, Mrs. Pat Franklin passed out a sheet showing status of items which were brainstormed. A copy of that list of concerns is attached to these minutes. It shows action already taken/being taken and the person responsible for the actions.

Mr. Doyle Brittain commented on the item regarding environmental issues such as asbestos and tanks. He said that one of the things that the Navy has done that has not been broadcast is that there has been a lot of work done in this area. There has been an asbestos assessment of the buildings. There has also been a tremendous amount of effort as far as lead based paint, underground storage tanks, aboveground storage tanks and other types of environmental issues are concerned. He wanted to emphasize the progress that the Navy has made in these areas and let the RAB and community know that the Navy is not dealing just with hazardous wastes.

Mr. Lou Mintz expressed concern that only EnSafe/Allen & Hoshall was involved in the base cleanup. Mr. Tony Hunt explained that E/A&H had been awarded a contract in accordance with standard Navy contracting procedures. This contract for investigation work is for a ten year period. They are the prime contractor. They are free to hire sub-contractors and do so on a regular basis.

Mr. Mintz also wanted to know if the Navy was going to abate all of the asbestos siding on the small buildings. Mrs. Franklin explained that the Navy only abates damaged or friable asbestos. In the case of buildings with undamaged asbestos, the lessee or transferee will be advised that asbestos is present but the Navy will not remove it. It is not a health hazard unless it is damaged, friable and accessible. If the new owner wants to demolish the buildings, then they would have to do it in accordance with all of the asbestos regulations. Mrs. Franklin said the subject of asbestos would be placed on a future agenda and discussed at length.

She then facilitated another brainstorming session with the following additional observations/concerns surfacing:

⇒ Want hard facts on what is being found in sampling

⇒ Current CNSY employees used for clean-up

⇒ Recent RDA changes and how they affect clean-up

⇒ Report on progress for program areas

⇒ Who will provide security for the base

⇒ Should we move the site for RAB meetings

⇒ Can RAB be involved in improving approaches into the base

⇒ How are local residents going to benefit from clean-up (environmental justice)

⇒ Suggest writing Congressman Spratt regarding BRAC budget cuts

⇒ Navy provide presentation of major issues that are being dealt with

⇒ Jobs for community

⇒ Who's coming on base (graphically)

⇒ Will RDA have new member on RAB

⇒ Have RAB priorities for sites changed

⇒ Asbestos sheeting on buildings

The above items will be used to develop agendas for future meetings.

6. Environmental Cleanup Progress Report.

Mr. Tony Hunt, Remedial Project Manager for Charleston Naval Complex, gave a Cleanup Progress Report. He is responsible for managing the environmental investigation and remediation required by the Resource Conservation and Recovery Act (RCRA).

Mr. Hunt passed out the Monthly RCRA Facility Investigation (RFI) Progress Report for April 1995, a Zone Map and Preliminary Results from Zone H sampling. (Zone H is the Southern End of the Base, excluding the waterfront.) This Handout is attached to the minutes. He went over how the Base was divided into zones as shown on the Zone Map attached. He reported that there have been no funding changes since the last report; i. e., Zones A, B, C, H, and I are fully funded. Zone E is funded through December 1995 and Zones J and L are funded for RFI Work Plans only. Mr. Hunt said that funding cuts were being experienced across the board. However, no cuts have been made in investigation funding for Charleston.

The Corrective Measures Implementation (CMI) or remediation portion of the Charleston work has not happened yet. Captain Augustin commented that no funding requested for Charleston had thus far been denied.

There were no additional sites identified during April . The number of sites to be investigated remains at 234.

The RCRA Facility Assessment (RFA) consists of document searches, site visits and personnel interviews to determine which sites require further investigation. We

have five Volumes to date. We are nearing approval of Volumes I through III. Volumes IV and V are in the review process by the Regulators.

Work Plans for Zones C and I have been approved and field work continues. Regulatory review of the Work Plan for Zone E continues. The Progress Report shows samples collected to date versus proposed samples.

There are five Zone Work Plans being prepared. Field work is in process in three Zones. The other two are awaiting funding.

The projected activity for May is to negotiate and award contract for development of work plans for the remaining Zones, resolve issues on the work plans and submit them and continue Zones C and I field work. The Progress Report shows that we had hoped to get the Corrective Action Management Plan, CAMP, approval in May, but approval has been received already. We have also obtained the Zone E comments and are working toward resolving those.

As an item of interest, Mr. Hunt announced that the Shipyard has been awarded work for preparation of the interim measures evaluation for Area of Concern (AOC) 653, which is the automotive lift in Building 1508, the MWR Hobby Shop. Due to the maintenance that was done on automobiles, there were greases, oils, gasoline and normal maintenance type spills on the pavement which caused concern. After further investigation, it was also found that the hydraulic lift has leaked 200 gallons of hydraulic fluid over a period of time. It was sampled and found to be restricted to soil contamination and offered a good possibility for removal action. It seemed an appropriate site to award to the Shipyard to have them demonstrate their ability to do the remediation work. The work requires the Shipyard to obtain history on the site, determine the best method of cleanup and present that determination in the form of a memo to Southern Division, the regulatory agencies and the RAB. Comments will be obtained and the work plan will be developed.

Mrs. Pat Franklin asked Mr. Hunt to explain the term "interim measure." He said it was normally associated with an imminent and substantial danger at a site where there is a risk to human health and the environment. In the case of AOC 653, however, it is a site where the Navy feels it has an opportunity to stop a release and to take action prior to completion of the RCRA Facility Investigation (RFI). The RCRA Permit allows us to take these interim measures provided that work plans are submitted and have regulatory approval. Essentially, in this case it is mitigating a release to prevent further risk to the environment. Ms. Jane Settle asked whether this interim measure was just to stop an on-going release or whether it would remediate the site from what has already been released. Mr. Hunt said that the goal was to remove the tank causing the release, but also any contaminated soil that is obviously present. She asked if it would be removing visually obvious contamination or analytically obvious contamination. Mr. Hunt said it would be analytically obvious contamination. She wanted to know how risk assessment would come into play for an interim measure versus as a part of the long term process. Mr. Hunt said that the same levels would be used as were used for assessment of the

site to establish the volume of soil that will be physically removed.. As we move into the background determination and risk assessment it can be determined how well that area was defined for final cleanup. This will be kept in mind during the Corrective Measures Study to determine if further action is needed.

Mr. Arthur Pinckney wanted to know if a RAB field trip could be arranged to some of the sites to get a first hand look at what was going on. Mr. Hunt said he would arrange a field trip for the group.

LCDR Nick Cimorelli wanted to know how samples were taken. Mr. Hunt explained that all groundwater samples are taken from the monitoring wells. Soil samples are taken from the circumference of the suspected site and on a grid basis across the zone - surficial and three to five foot depths. LCDR Cimorelli wanted to know what the sediment areas are. Mr. Hunt explained that this was mostly in the wetlands areas but could be any area, such as a ditch that holds water and contains the same species of plants and biota. Wipe samples would be used to sample in areas where lead or asbestos residue exists to determine if any remains.

Ms. Wannetta Mallette asked what type of medical waste was being found. Mr. Hunt said it was mostly syringes and test tubes.

Mr. Mintz asked how contamination could be in groundwater and not in the ground at SWMU 20. Mr. Brittain explained that contamination will migrate . Once contamination reaches groundwater it travels by the water and not the soil and the contamination doesn't necessary originate in the soil around the groundwater. Once there is a spill, it will migrate downward to the groundwater and once it hits the groundwater it's going to move faster and can move away from the point of the original spill or landfill. The source will be determined by the contractor as the process proceeds. The RFI report will be available next month and more specific results will be given to the RAB members. Mr. Hunt reiterated that the handout was labeled "preliminary field investigation data." Mr. Brittain said that more analysis is necessary to eliminate the anomaly which Lou Mintz raised. It was decided to give the RAB this preliminary data because at last month's meeting the question of what was being found was asked. Mr. Hunt said that the field work is on schedule and will continue if there are no delays in funding.

7. Update on Environmental Impact Statement.

Mr. Doyle Brittain explained that the revised draft EIS had to be developed when Plan 36 was added to the Reuse Plan resulting in only a two month delay in the Final EIS. The final draft is currently undergoing Navy review. The present schedule is:

May 12	Complete Navy Review
June 2	Submit Final Draft EIS to EPA and SC DHEC
June 9	Begin 30-day Public Review
July 10	Complete Public Review

July 14 Record of Decision

The RAB members will be given a copy when the public review period begins. RAB members should review it, understand it and submit written comments. The general public can go to the repository to review it. July 10 will be the cutoff date for the submission of comments and unless there are earthshaking comments the Record of Decision will be made on July 14. There will be no formal public hearings.

8. Update on Redevelopment Authority.

Ms. Jeri Johnson who is on the staff of the RDA told the group the makeup of the new RDA:

Mr. Arthur Ravenel, Chairman
Mr. Lonnie Hamilton, North Charleston Representative
Mr. Virgil Johnston, North Charleston Representative
Mr. Gary McJunkin, North Charleston Representative
Dr. Thaddeus Bell, Berkeley County Representative
Mr. Jim Bryan, Dorchester County Representative
Mr. Allen Meetz, Charleston County Representative

The new RDA has been working for 10 days and has met two times. They have discussed an offer to the Postal Service to locate their remote encoding facility on the Base. Now the RDA is focusing almost exclusively on the 13 proposals that were received as a result of the Request for Proposals (RFP) that was sent out several months ago. They have agreed on an evaluation process and will spend the next two weeks getting familiar with the proposals. They will then request presentations from the top four or five proposals in two weeks. Ms. Johnson said that this process looks very hopeful and that some of the proposals look very good. The RDA thinks there will be some very positive results coming out of these proposals.

Mr. Lou Miutz asked if any other proposals could be looked at if one was received. Ms. Johnson explained that no other proposals could be considered under this RFP. After this process is complete and we end up with one or more major tenants, other proposals could be entertained if they would fit in with those major tenants and the constraints of the Shipyard. New proposals could be solicited after the current process is complete without having to use the State procurement regulations. The RDA will be able to work as any other developer or marketing company.

Mr. Pinckney asked if any shipbuilding companies had submitted a proposal. Ms. Johnson said that there were no shipbuilding companies but there was ship repair.

Mr. Brittain asked that Ms. Johnson go back to the RDA and encourage them to appoint a member to serve as a RAB member. EPA and DOD place a very high priority on the RAB because it is a forum for getting community input and any decision that the RDA makes is going to be affected by the RAB actions with respect

to the environment of the Base. He said it would be very important for the RDA to interact with the RAB.

Ms. Ann Ragan also stressed the importance of interaction among all of the entities attempting to redevelop the Base and said that SC DHEC would be willing to go to the RDA and make a presentation.

Ms. Mallette asked if the RDA could graphically display somehow the areas of the Base that have new tenants. Ms. Johnson said that the RDA couldn't be specific about the RFPs at this time, but generally, only one lease (the Marina) is in place and four or five leases that are working. Someone from the RDA could give a presentation to the RAB on where they are and who the tenants will be.

9. Base Closure Status.

Captain Augustin distributed and briefed a handout entitled Naval Base Charleston Closure Summary. This was in response to a question at the last RAB meeting as to where the closure stood at this point. A copy of the handout is attached to these minutes.

Captain Augustin then asked for questions. Mr. Ralph Laney asked about the Nuclear Power School and how that would affect Charleston. Captain Augustin explained that if the Nuclear Power School, which is now in Orlando, relocates to Charleston, it will be at the Naval Weapons Station and not the Naval Base Complex. LT Donna Murphy said that if it relocates to Charleston, a facility would have to be built and it wouldn't come to Charleston until at least 1998.

10. Public Relations Subcommittee Report.

Mrs. Pat Franklin said that Fact Sheet No. 3 on Typical Site Cleanup had been mailed out. Fact Sheet No. 4 is in the draft stage. It sets forth the differences in the National Environmental Policy Act (NEPA) and the Resource Conservation and Recovery Act (RCRA). RAB members gave approval for publication. Fact Sheet No. 4 will be mailed out in May and will be available at the June RAB meeting.

Mr. Mintz said that the RDA had at one time mailed out the RAB's Fact Sheet with their Monday morning report. He asked Ms. Johnson if the Monday morning report was going to be continued. She assured the group that it would be continued and will consider including the RAB's Fact Sheets in their report.

Ms. Franklin showed the group color graphic flyers that had been sent to RAB members for them to place around the Charleston area to publicize the RAB and get more community involvement. She expressed appreciation to Ms. Mary Hughes of the Base Closure Office for the excellent job in making up the flyers.

Ms. Franklin thanked Mr. Pinckney for asking the TV stations for coverage of the RAB meeting and thanked the representatives from Channel 2 for responding.

Captain Augustin pointed out that LT Donna Murphy had also done a tremendous amount of work to get news coverage for the RAB.

Captain Augustin again brought up the question of changing the name of the RAB. Several suggestions were received including Naval Complex Environmental Cleanup Advisory Board. Members were asked to think about the name. A decision will be made at a future meeting.

Mrs. Franklin announced her replacement as the BRAC Environmental Coordinator (BEC) for the Naval Base. The new BEC is Daryle Fontenot.

11. Training Subcommittee Report.

Mr. Doyle Brittain announced that the Subcommittee had developed a list of subjects for possible RAB training. They are:

Basic environmental chemistry
Sampling methodology
Rotosonic well installation
Environmental cleanup/treatment alternatives
Environmental investigation process
Risk assessment
NEPA process
Hazardous materials
Radioactivity in the environment
Epidemiology/toxicology

The Subcommittee also plans a site visit to view sampling techniques.

The next step is to set up a time for the training that will be convenient for most of the members.

12. Old Business.

Mrs. Franklin commented that at the last meeting she had passed out a sheet to get suggestions on when to hold the next brainstorming session on roles and responsibilities of the RAB. Feedback indicates that a weekday morning would be the best time. It was tentatively decided that the session would be held the morning of June 13 at 9:00 am. Members will be advised of the location. The Public Relations Subcommittee scheduled for the afternoon of 13 June will not be held.

Captain Augustin announced that the current contract with Best Western expires after the June meeting. The contract will have be renegotiated or an alternate location found. Cherokee Methodist Church is being considered because it is in the Chicora Area. He asked for members to suggest other alternatives.

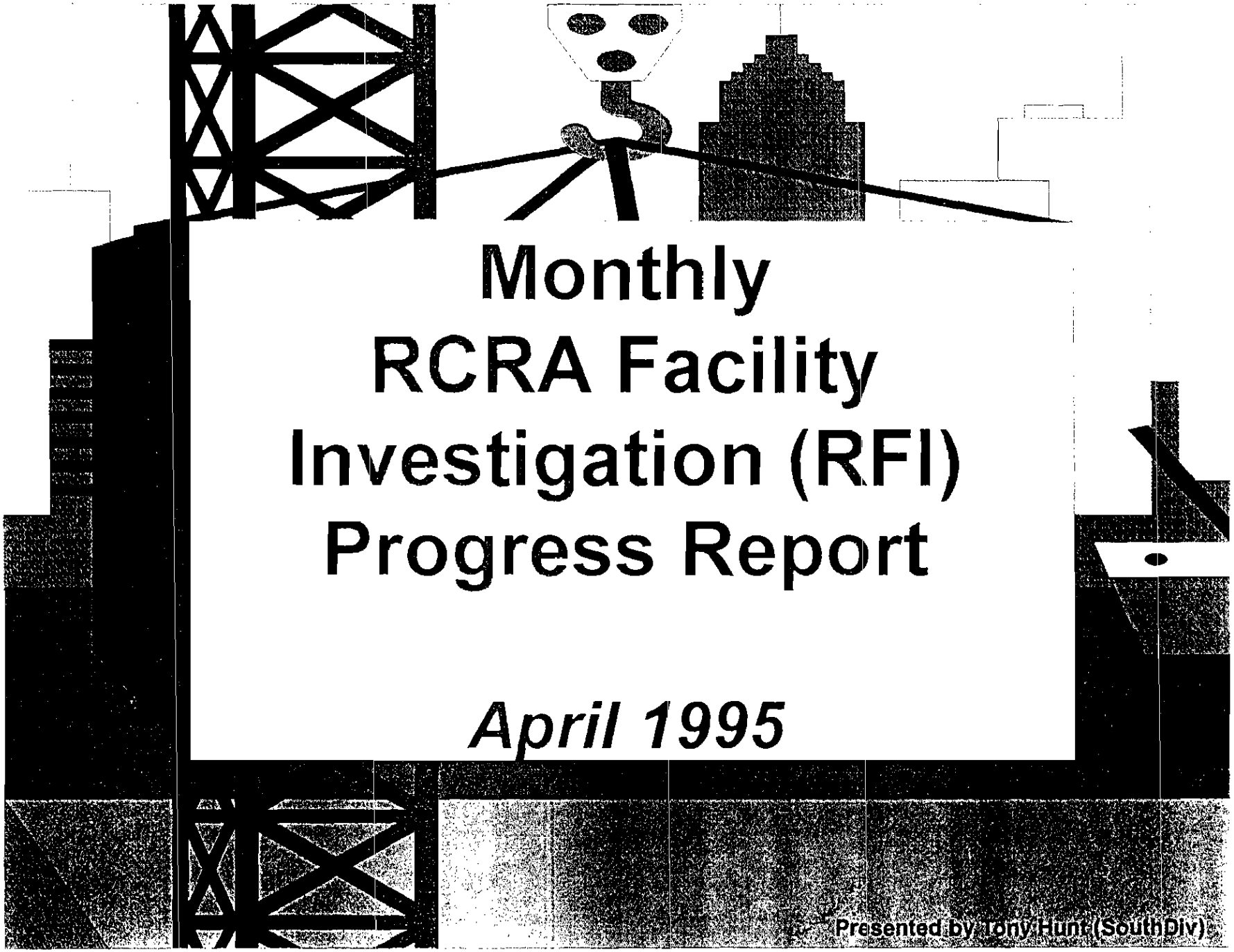
13. Adjournment.

It was announced that the next meeting is scheduled for June 13, 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 pm to 9:00 pm with an informal hour beginning at 6:00 pm. The meeting was adjourned.

Minutes approved by:

J. H. AUGUSTIN Co-Chairman	JACQUELINE WHITE Co-Chairman

Attachment to Minutes:
(1) Progress Report for April
(2) Naval Base Charleston Closure Summary

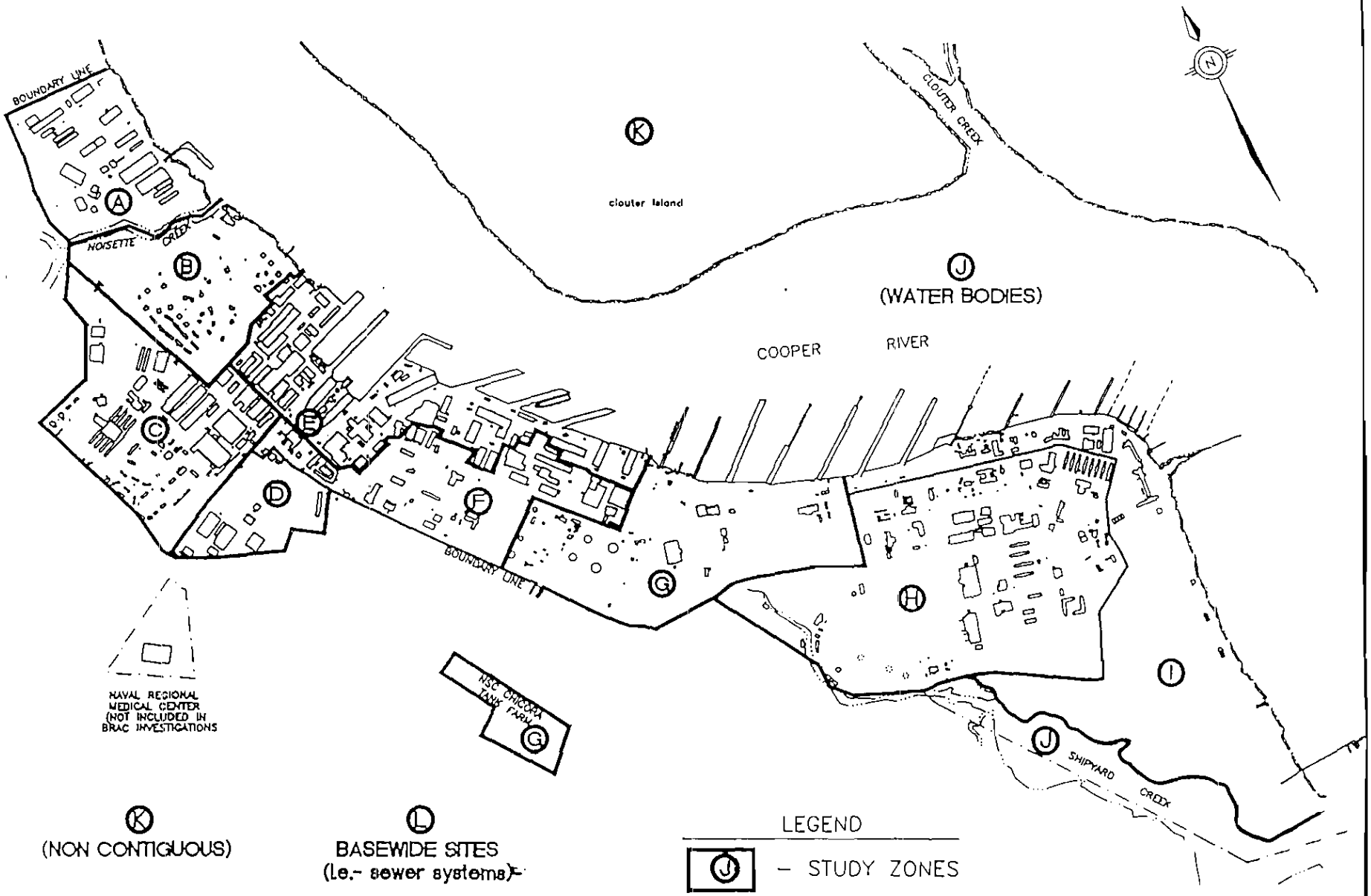


Monthly RCRA Facility Investigation (RFI) Progress Report

April 1995

Presented by Tony Hunt (SouthDiv)

Attachment 2



(NON CONTIGUOUS)

BASEWIDE SITES
(i.e.- sewer systems)

LEGEND

J – STUDY ZONES

2000 0 2000
SCALE FEET

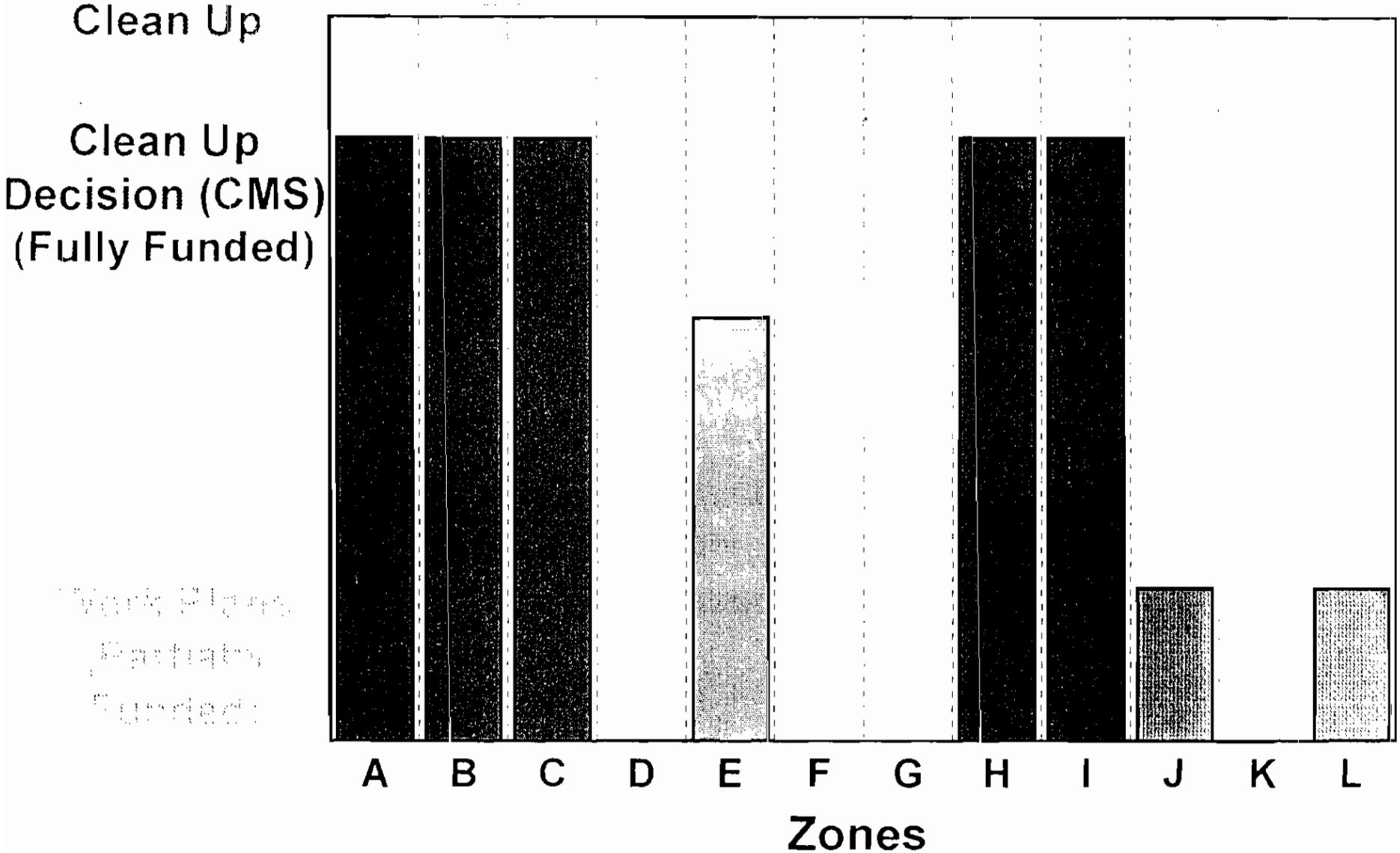
SOURCES: SOUTHDIV, n.d. ESE, 1981.

BRAC CLEANUP PLAN
NAVAL BASE
CHARLESTON

FIGURE 4-2
ZONE MAP

DWG DATE: 02/15/95 | DWG NA | 60ZONE

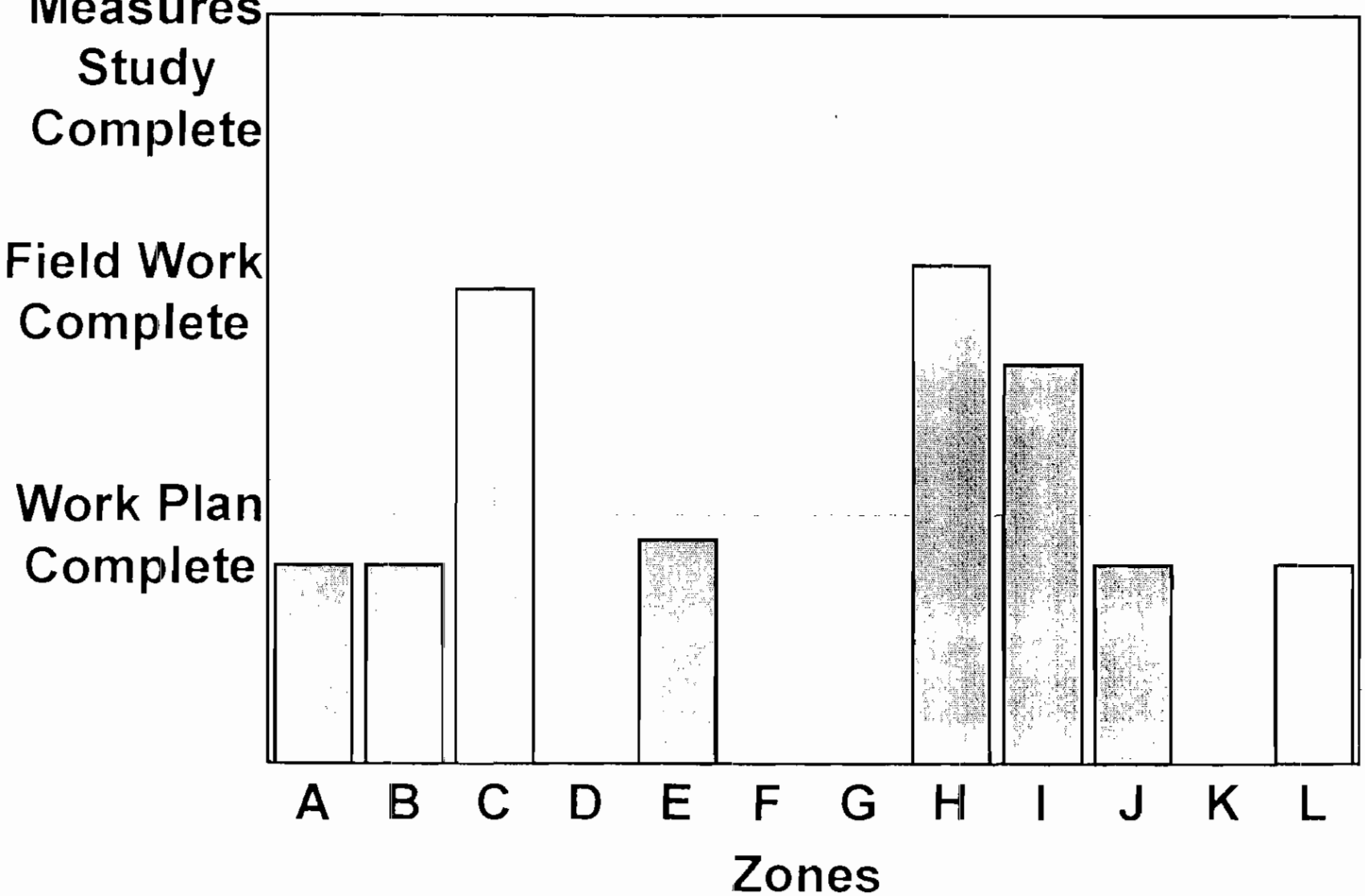
Funding Status



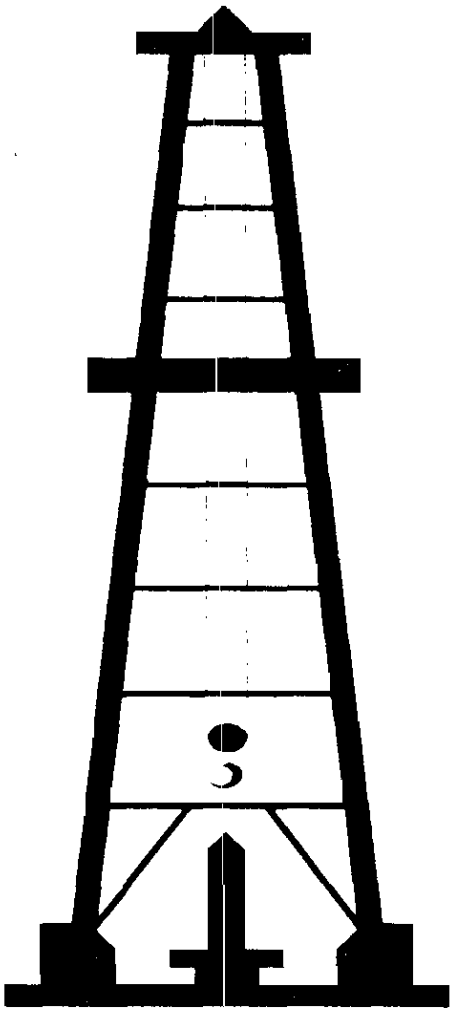
April Progress

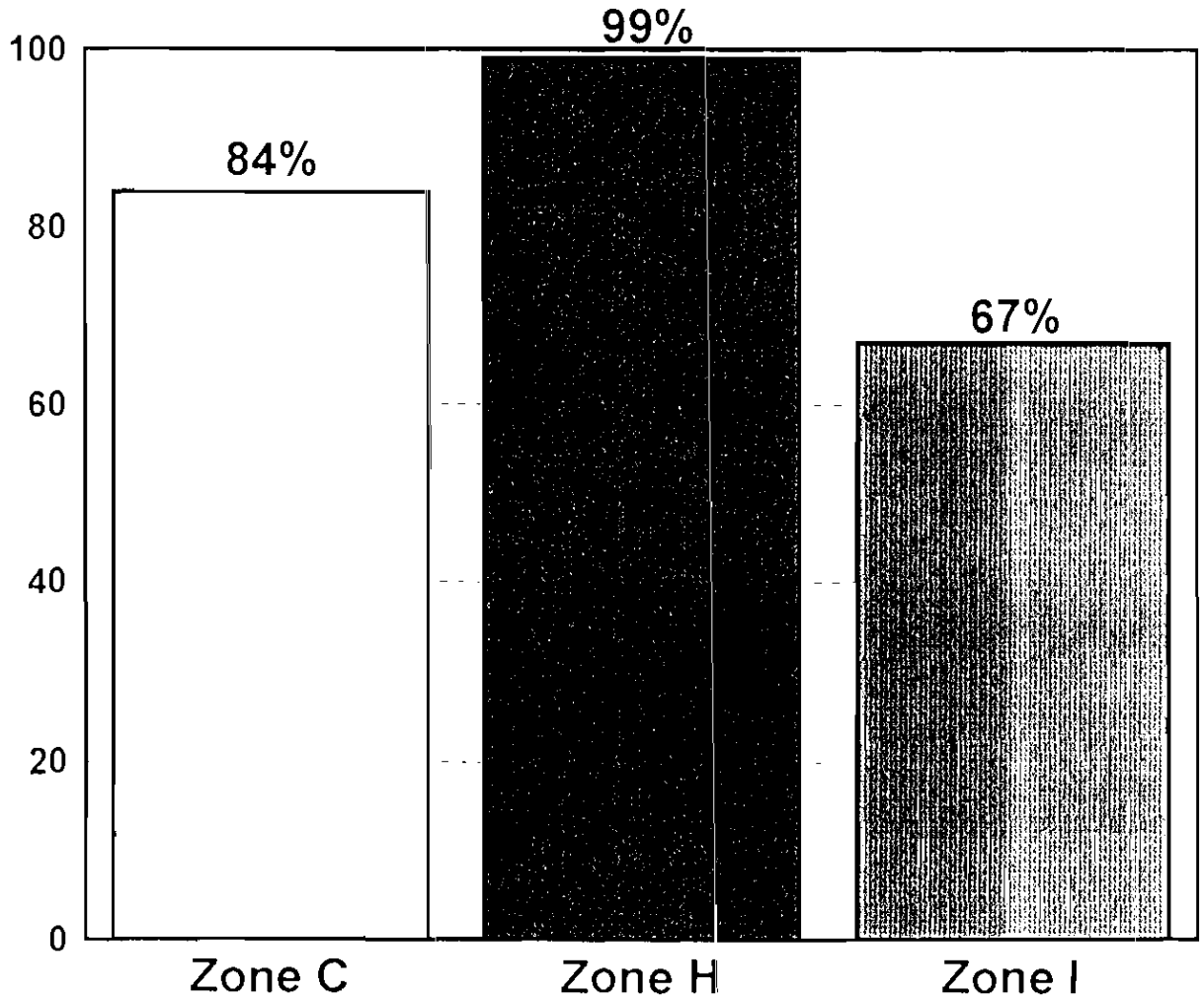
- ✓ Final Resolution on Volumes I through III of the RFA Submitted
- ✓ Comments Received on Volume IV of the RFA
- ✓ Zones C and I Field Work

RCRA Corrective Action Status



Sampling Progress

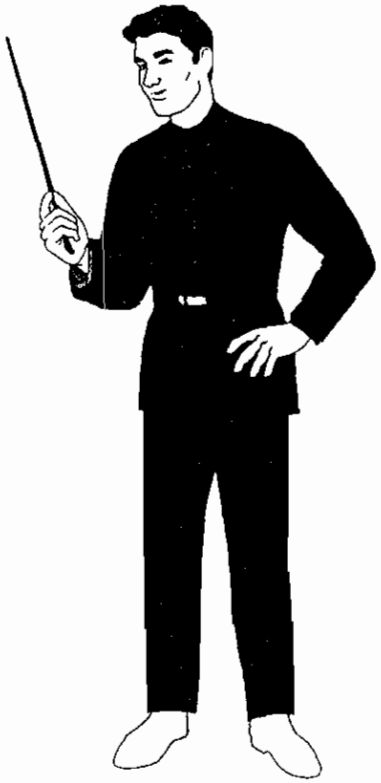




Projected Progress for May

- Negotiate and Award Contract for Upcoming Zones
- Obtain Zone E Comments and Resolve
- Submit Zones A, B, and J Work Plans for Regulatory Review
- Continue Zones C and I Field Work
- Obtain CAMP Approval

Items of Interest



Shipyard Awarded Work for Preparation of Interim Measures Evaluation at AOC-653

Naval Base Charleston Closure Summary (as of 8 May 1995)

Mission Closure:	1 Oct 1995
Operational Closure:	1 April 1996 (disestablishment of COMNAVBASE and other major commands).
Direct Employment:	All Navy Charleston - (includes Weapons Station, NISE East, NAVHOSP, etc.) Original Baseline (27,300): 18,000 military 9,300 civilian Now On board (14,100): 9,600 military 4,500 civilian Post Closure (7,100): 3,600 military 3,400 civilian
Fleet Assets:	Of the 40 ships and subs homeported in Charleston at the BRAC decision, (25 ships and 15 submarines) 38 go away -- either to other homeports or through decommissioning. 2 AE's remain at Naval Weapons Station. Submarine Group 6, Destroyer Squadron 36, and Submarine Squadron 4 already decommissioned. Cruiser Destroyer Group 2 and Destroyer Squadron 20 moved to Norfolk. Current count: 11 ships (including 2 AE's) -- all subs gone 31 March 95.
Shore Assets:	Naval Shipyard, Naval Station and Naval Base to disestablish. Of 68 commands affected by BRAC, 22 to disestablish, 30 to relocate, 16 to remain. Current count: 53 commands remain as of 8 Apr 95.
Land and buildings:	1600 acres to be excessed, 834 structures to be excessed
Environmental Impact Statement:	To be completed, July 1995
Redevelopment:	July 93 - BEST Committee (Building Economic Solutions Together) 45 members Aug 94 Redevelopment Authority (RDA) 12 member board replaced BEST. March 1995 - RDA disintegrated because of local politics. May 1995 - RDA reconstituted as a 7-member board.
Reuse Plan:	Completed in June 1994, plan may change as commercial firms propose reuse.
Reuse Emphasis:	Current emphasis: attracting shipbuilding, ship repair firms, Response received on Request-for-proposals.

Meeting Closure Goals

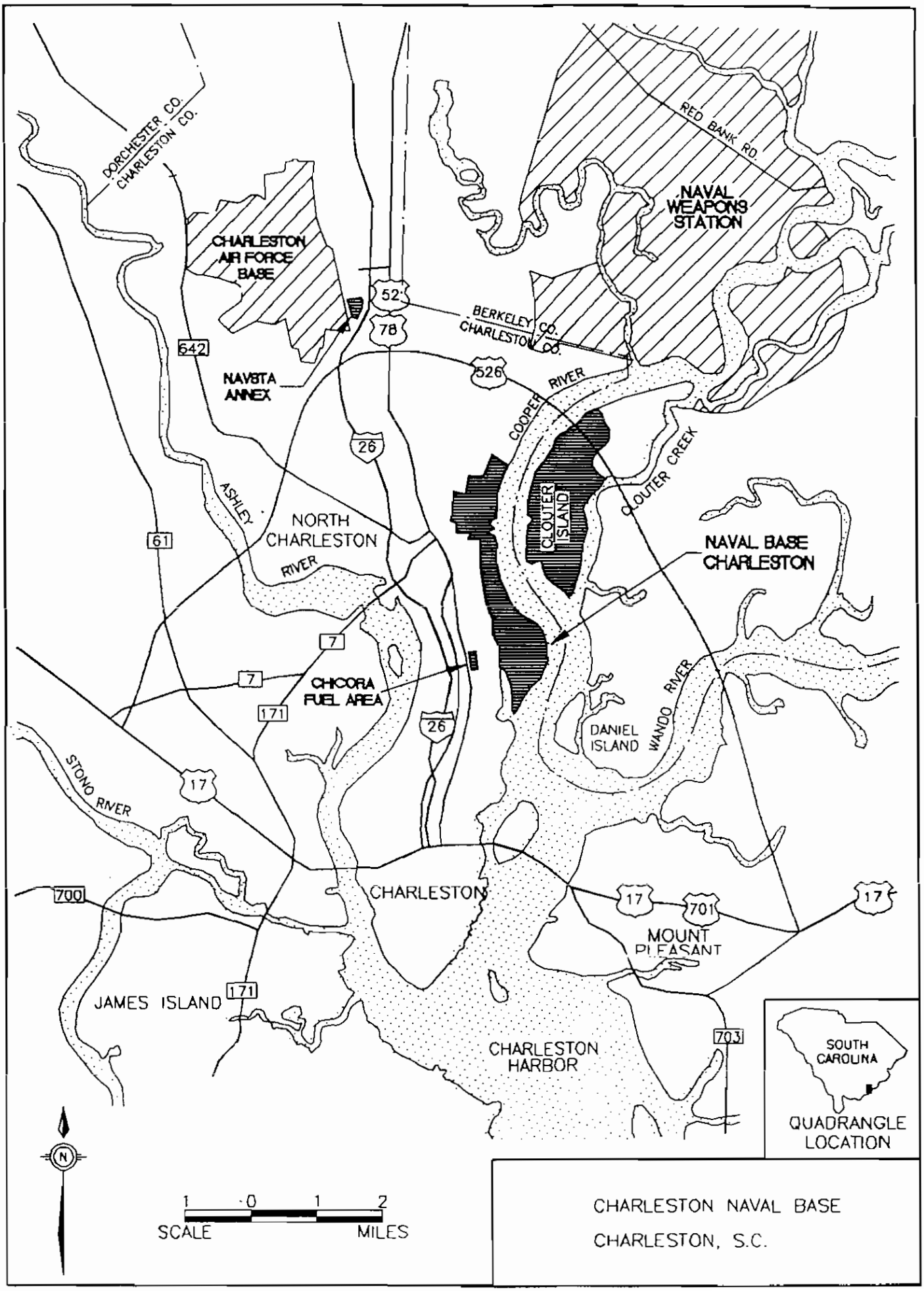
Smooth Operational Phase Out - Cut Costs

Teamwork on Pre and Post Closure Efforts

Expedite Environmental Cleanup for Property Disposal

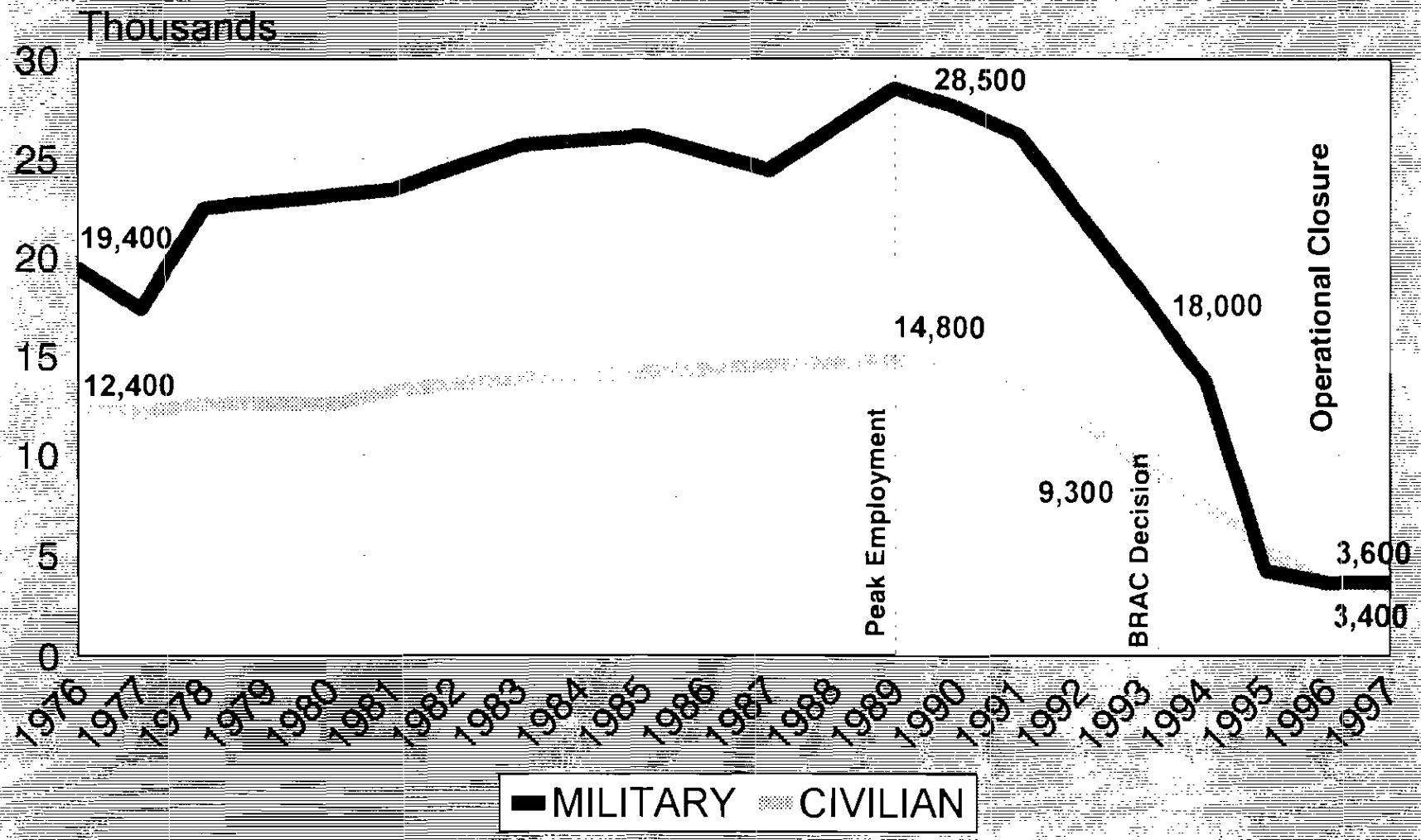
Take Care of Naval Complex Personnel

Support the Redevelopment Authority

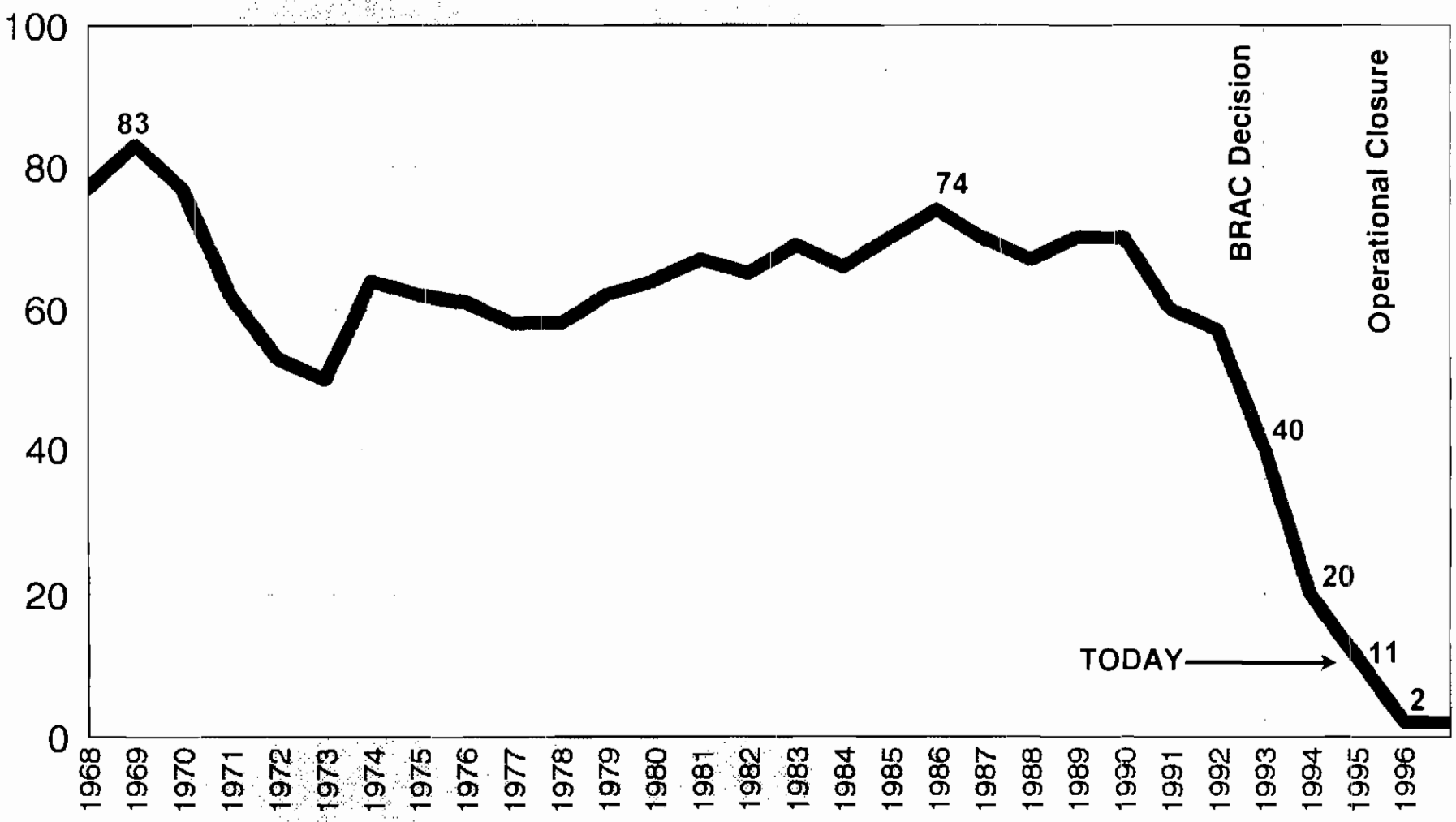


CHARLESTON NAVAL BASE
CHARLESTON, S.C.

HISTORICAL EMPLOYMENT LEVELS FOR NAVY CHARLESTON

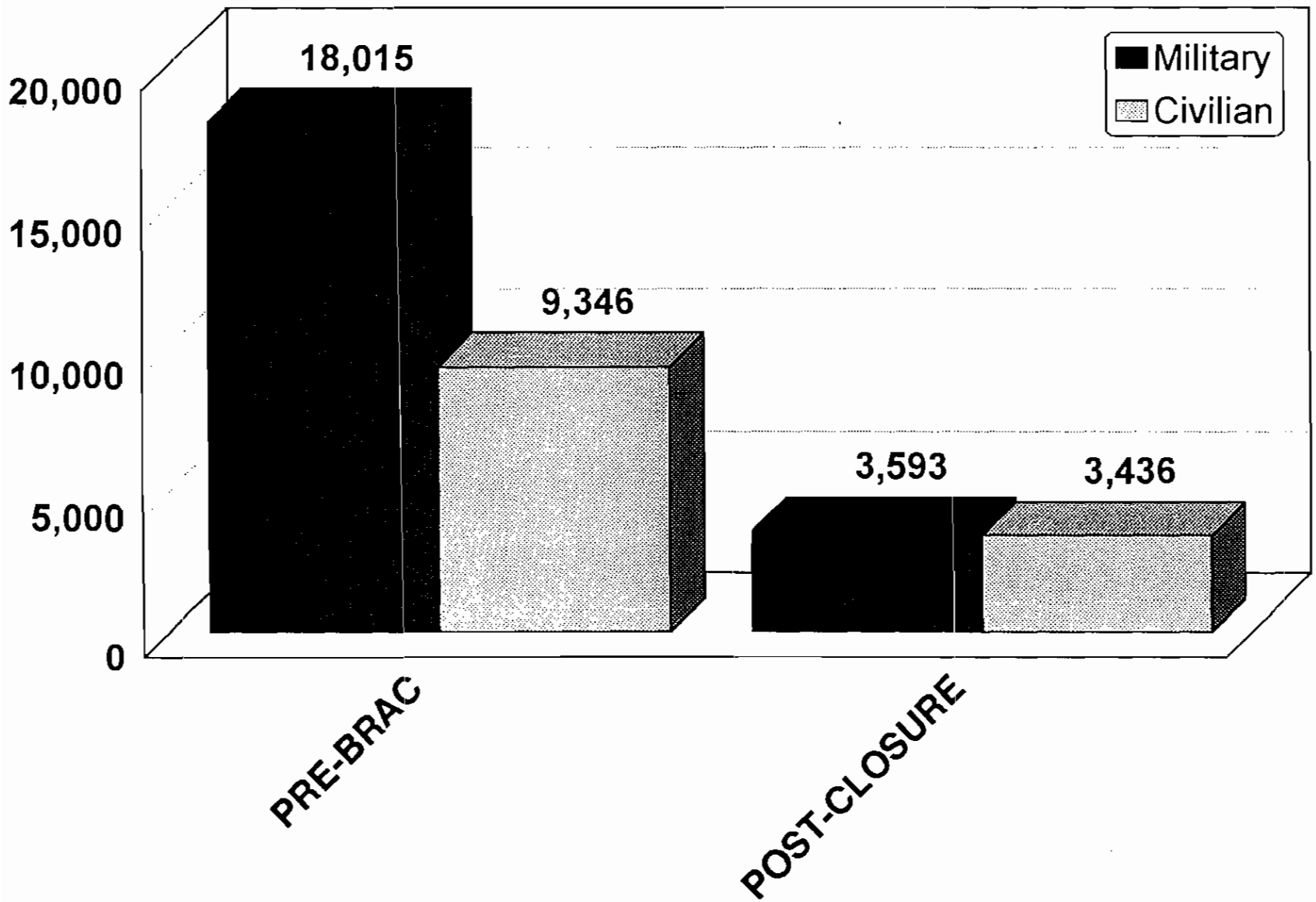


HOMEPORT SHIP HISTORY



TOTAL NAVY CHARLESTON and TENANTS
PRE-BRAC AND POST-CLOSURE

27,361 to 7,029



Building Layup Levels

Level 1: Immediate Reuse - Reuse at or Before Operational Closure

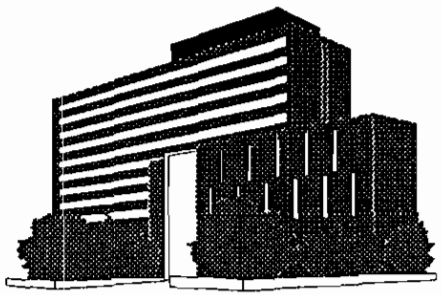
Level 2: Reuse Within 6 Months of Operational Closure

Level 3: Reuse Between 6 Months to 2 Years

Level 4: Reuse Not Identified

Level 5: Leased

Level 6: No Reuse Likely



Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR APRIL 1995
RAB MEETING
9 MAY 95

INVESTIGATIVE ZONES

Zones: A. Warehousing and scrapmetal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Investigation only, no change from March)
  Fully funded: Zones A, B, C, H, I
  Funded through December of 1995: Zone E
  Funded for RFI Work Plans only: Zones J, L

PROGRESS FOR APRIL

- No additional sites were notified in April. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	204
Total	399
No Further Investigation at this time	165
Total to investigate	234

- The Final resolution on outstanding items with Volumes I through III of the RFA have been submitted to SCDHEC and EPA for review.

Attachment 1

- Comments have been received on Volume IV RFA and are being addressed. Volume V is still in review by the regulatory agencies.

- Regulatory review continues on Zone E work plan.

- Zone C and I field work continues, the following table provides a status.

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Wipe
Zone H	800/800	288/292	13/13	4/4	0
Zone I	184/184	7/55	0/22	0/5	0/18
Zone C	204/218	8/31	13/13	7/14	0

PROJECTED ACTIVITY FOR MAY

- Negotiate and award contract for development of work plans and implementation for Zones D, F, and G and implementation only for Zone L.

- Obtain Zone E comments from regulatory agencies, resolve and submit response to comments.

- Submit Zone A and B (combined) work plans for regulatory review.

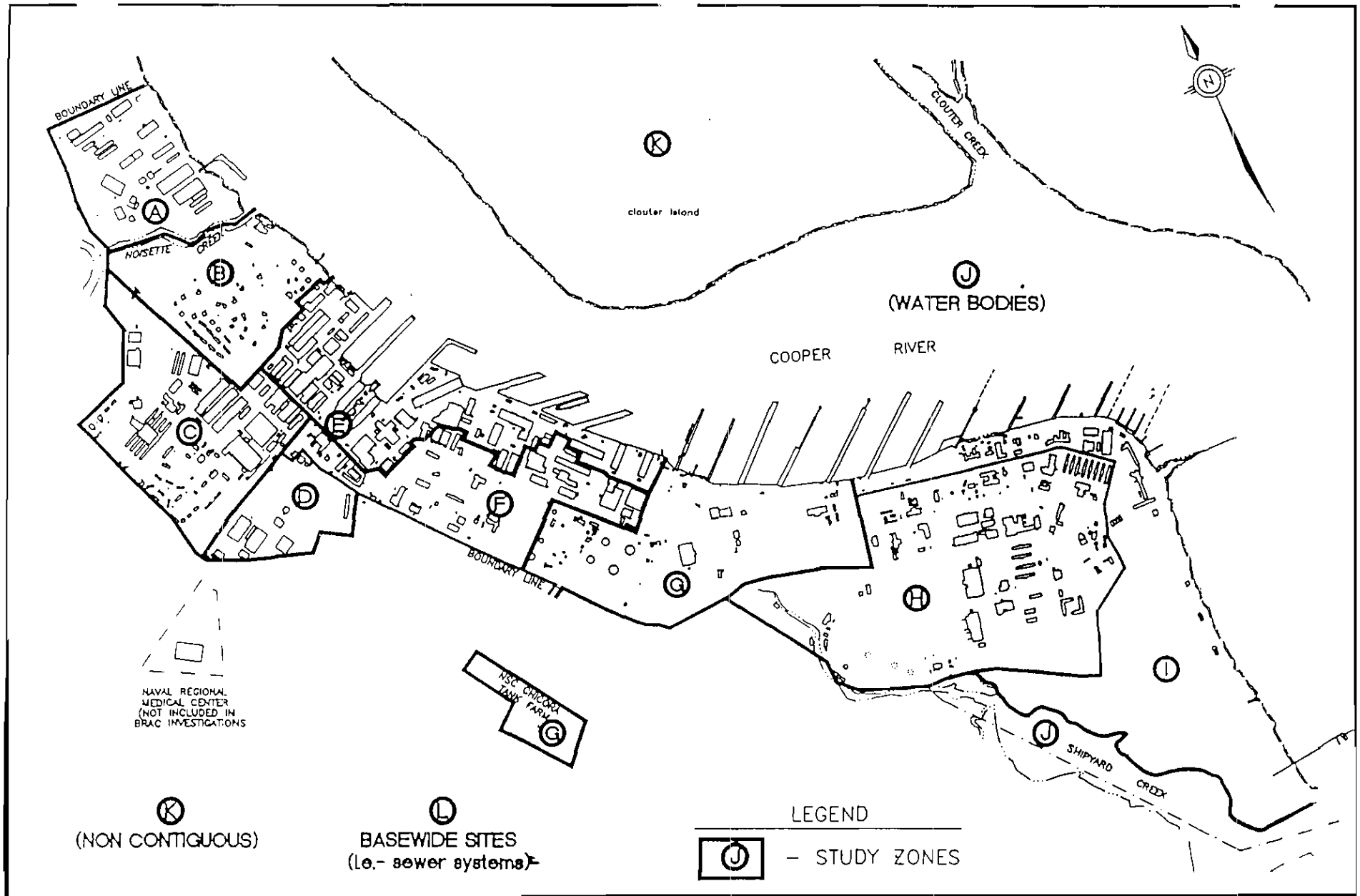
- Submit Zone J work plan for regulatory review.

- Continue Zone C and I field work.

- Obtain CAMP approval.

ITEMS OF INTEREST

- The Shipyard has been tasked with developing an engineering evaluation and cost analysis to support a voluntary interim measure at AOC 653, Building 1508 MWR Hobby Shop.



(NON CONTIGUOUS)

BASEWIDE SITES
(i.e.- sewer systems)

LEGEND

J – STUDY ZONES

2000 0 2000
SCALE FEET

SOURCES: SOUTHDIV, n.d. ESE, 1981.

BRAC CLEANUP PLAN
NAVAL BASE
CHARLESTON

FIGURE 4-2
ZONE MAP

DWG DATE: 02/15/95 | DWG NAME: 760ZONE

Preliminary Results of Zone H Field Investigation Data

- Acronyms: PAHs are Polynuclear Aromatic Hydrocarbons which is a term used to describe a large class of compounds that are commonly used as fungicides, cutting fluids, lubricants and emulsion breakers. PAHs are also produced as a result of incomplete combustion in engines. PCBs are polychlorinated biphenyls widely used in transformer oil and other applications where heat resistance is required. TPHs are total petroleum hydrocarbons which is a term used to include a large class of compounds that are constituents in fuels such as diesel fuel and gasoline. VOCs are Volatile Organic Compounds which are low molecular weight compounds used as propellants.

- Dioxins are a special class of halogenated compounds that due to their unique structure are extremely resistant to degradation and persist in the environment.

- Compounds in italics and bold were detected in groundwater only. Compounds in italics, bold, and parentheses were detected in both soil and groundwater.

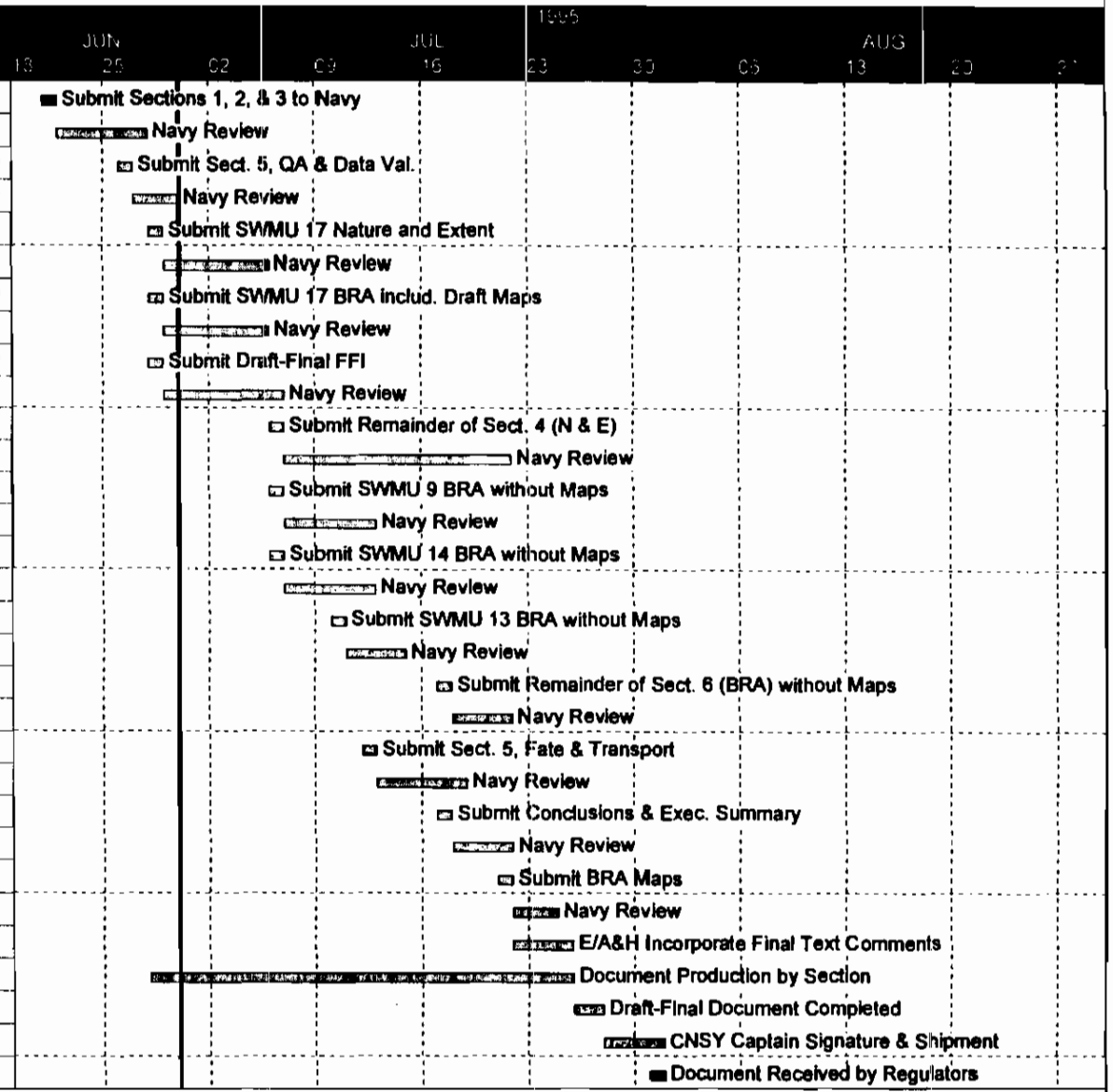
- Preliminary evaluation of background data indicates the ubiquitous (seemingly everywhere) presence of low levels of dioxins (part per trillion level), metals, pesticides, and some PAHs.

SWMU/AOC	Site Description	Contaminant source	Contaminants that are above expected background values	Media Affected	
				Soil	Ground Water
9	Closed Landfill	Landfill debris including asbestos, sludges, mercury, electroplating waste, PCBs, medical waste, batteries, paint, used oil, abrasive blast media	*(PAHs), (Pesticides), (Metals), (VOCs)*	✓	✓
19	Solid Waste Transfer Station		PAHs, PCBs, Metals, Furans	✓	
20	Waste Disposal Area		***VOCs***		✓
121	Building 801 SAA		PAHs, PCBs, Metals, Furans	✓	
13	Fire Fighting Training Area	Petroleum products, volatile liquids	Pesticides, TPH, Metals	✓	✓
14	Chemical Disposal	Chemicals used for warfare decontaminating agents	Metals, TPH, Dioxins	✓	
15	Incinerator	Ash	PAHs, Metals, Dioxins	✓	

SWMU/AOC	Site Description	Contaminant source	Contaminants that are above expected background values	Media Affected	
				Soil	Ground Water
9	Closed Landfill	Landfill debris including asbestos, sludges, mercury, electroplating waste, PCBs, medical waste, batteries, paint, used oil, abrasive blast media	*(PAHs), (Pesticides), (Metals), (VOCs)*	✓	✓
17	Oil Spill Area	No. 5 Fuel Oil, PCB containing dielectric fluid	*(PAHs)*, PCBs, Metals, *(VOCs)*, Dioxins	✓	✓
136,178, 663	Bldg NS-53 SAA, Former Transformer Area, Gas/Diesel Pumping Station	Petroleum products, solvents, paints, hazardous wastes (Volatile liquids, waste oil, etc.)	PAHs, PCBs, Pesticides, Metals, TPH	✓	
138,667	Bldg. 1776 SAA and CBU-412 Vehicle Area	Petroleum products, waste oil, antifreeze	PAHs, Metals, *VOCs*	✓	✓
653	Hobby Shop	Hydraulic oils, waste oil, solvents, paint	PAHs, PCBs, TPH	✓	
655	Oil Spill Area Behind Base Exchange	Petroleum products	PCBs, Pesticides, Metals, TPH	✓	
656	Petroleum Spill Between Blgs. 602 and NS-71	Petroleum products	PAHs, Metals, TPH	✓	
659	Diesel Storage	Petroleum products	Metals, TPH	✓	
665	Pyrotechnic Storage	Pyrotechnic and explosive constituents	PAHs, Pesticides	✓	
666	Fuel Storage Area	No. 2 fuel oil (petroleum products)	PAHs, PCBs, TPH, *VOCs*	✓	✓
670	Field South of Bldg. 1897 (Former Skeet Range)	Lead, Brass, Calcium Carbonate (from clay targets), Asphalt pitch	PAHs, Metals, Dioxins	✓	

NAVBASE Charleston Draft-Final Zone H RFI Report Schedule

Description	Target Start	Target Finish	Actual Start	Actual Finish
Submit Sections 1, 2, & 3 to	21JUN95	21JUN95	21JUN95	21JUN95
Navy Review	22JUN95	27JUN95	22JUN95	28JUN95
Submit Sect. 5, QA & Data Val.	26JUN95	26JUN95	26JUN95	26JUN95
Navy Review	27JUN95	29JUN95	27JUN95	29JUN95
Submit SWMU 17 Nature and	28JUN95	28JUN95	28JUN95	28JUN95
Navy Review	29JUN95	05JUL95	29JUN95	
Submit SWMU 17 BRA includ.	28JUN95	28JUN95	28JUN95	28JUN95
Navy Review	29JUN95	05JUL95	29JUN95	
Submit Draft-Final FFI	28JUN95	28JUN95	28JUN95	29JUN95
Navy Review	29JUN95	06JUL95	29JUN95	
Submit Remainder of Sect. 4 (N	06JUL95	06JUL95		
Navy Review	07JUL95	21JUL95		
Submit SWMU 9 BRA without	06JUL95	06JUL95		
Navy Review	07JUL95	12JUL95		
Submit SWMU 14 BRA without	06JUL95	06JUL95		
Navy Review	07JUL95	12JUL95		
Submit SWMU 13 BRA without	10JUL95	10JUL95		
Navy Review	11JUL95	14JUL95		
Submit Remainder of Sect. 6	17JUL95	17JUL95		
Navy Review	18JUL95	21JUL95		
Submit Sect. 5, Fate &	12JUL95	12JUL95		
Navy Review	13JUL95	18JUL95		
Submit Conclusions & Exec.	17JUL95	17JUL95		
Navy Review	18JUL95	21JUL95		
Submit BRA Maps	21JUL95	21JUL95		
Navy Review	22JUL95	24JUL95		
E/A&H Incorporate Final Text	22JUL95	25JUL95		
Document Production by	28JUN95	25JUL95		
Draft-Final Document	26JUL95	27JUL95		
CNSY Captain Signature &	28JUL95	31JUL95		
Document Received by	31JUL95	31JUL95		



Date	Revision	Checked	Approved
22JUN95	Original	GTH	GTH

Notes:

SWMU 9 submittals will also address SWMUs 19, 20, 121 and AOCs 649, 650, 651.

SWMU 14 submittals will also address SWMU 15 and AOCs 669, 670, 684.

Run date 30JUN95

© Primavera Systems, Inc.

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0639
07 AUG 1995

Mr. Doyle Brittain
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: FORWARDING OF THE MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT.

Dear Mr. Brittain:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of July, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R L Laney

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Progress Report - July, 1995.

Copy to:
SCDHEC (Bowers)
COMNAVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 July 95 TO 31 July 1995

I. INTRODUCTION

The following status report has been prepared to provide a monthly update on the progress of the RFI to members of the Naval Base Charleston (NAVBASE) BRAC Cleanup Team (BCT). The report is also intended to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 94 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

II. PORTION OF THE RFI COMPLETED

- The *Final Zone A and B RFI Work Plan* and a formal response to comments received on the draft-final were submitted to SCDHEC and USEPA on 24 July 95. A final review of the document is currently underway to ensure a proper response was made to each comment.

- Final technical issues regarding the *Final Zone E RFI Work Plan* were resolved and the changes to the plan submitted to SCDHEC and USEPA for approval on 26 July 95.

- The *Draft-Final Zone H RFI Report* was submitted to SCDHEC and USEPA for review and comment on 31 July 95.

- A draft *Comprehensive Corrective Measures Study Work Plan* was developed and is being submitted to members of the BCT for review and comment. This document will serve as the template for writing the zone specific CMS work plans.

III. SUMMARIES OF FINDINGS

Attachment A is a summary of the findings to date for groundwater in Zone I. The summary report provides a list of compounds detected in groundwater in both the shallow and deep wells. The list is zone specific and not site specific. If needed, the Navy can provide a lengthier site specific listing of affected wells. All results are still **preliminary** and **unvalidated**.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

During the month of July it was noted that the monitoring well identification scheme currently being used differs from the identification scheme outlined in Section 5.2 of the *Final*

Comprehensive Sampling and Analysis Plan. Additional characters were added to the well designations so that it indicates both the zone and site at which the wells are located. The work plan will be revised to be consistent with the manner in which wells are being designated across the base.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the July 1995 meeting and the minutes of the June 1995 meeting are provided as Attachment B. The minutes of the July 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

Potential future scheduling problems include 1) preparation of the RFI work plan for Zones D, F, G, and K; and 2) the third quarter sampling event for the Zone H monitoring wells. As of 31 July 95, no funding was available to task the contractor to begin work.

Comments provided by SCDHEC and USEPA pertaining to the RFI work plans have repeatedly questioned the use of data collected during pre-RFI field activities in 1993. Steps proposed to answer questions surrounding the validity of these included submittal of representative portions of the data to USEPA for independent validation, review of written procedures followed during sample collection, and copies of field notes. Representative portions of the data were submitted to USEPA in March 1995. Attachment C contains additional field notes, appropriate sections of the "Interim-Final RFI Work Plan" which was never approved because of the base closure announcement and the addition of numerous sites, comments and responses regarding the work plan, and the SCDHEC well permit approval. This information represents the remaining information requested by the respective agencies so that they can render an opinion regarding the useability of the data.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report

to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Review of the Zone C and I analytical data will continue in an effort to identify any data gaps which may exist.
- Preparation of the draft work plan for Zones D, F, G, and K will begin if funding becomes available.

Field Activities:

- Upon acceptance of the *Final Zones A and B RFI Work Plan* by SCDHEC and USEPA, field work will begin.
- Where necessary, installation of additional monitoring wells to fill data gaps identified in Zones C and I will begin. All proposed locations will be submitted to SCDHEC for approval prior to start of work.
- Upon acceptance of the *Final Zone E RFI Work Plan* by SCDHEC and USEPA, field work will begin.
- Coordination for subcontract services necessary for the Zone A, B, and E RFI field work will begin.
- Two observation wells are proposed to be installed in conjunction with the groundwater flow model being developed by the U.S. Geological Survey. One well is proposed for Zone C and one well is proposed for Zone H. An attempt will be made to schedule the well installations to coincide with the 8 August 95 RAB meeting so that members of the RAB may come out and observe the process.
- If funding becomes available, the Zone H quarterly groundwater sampling will continue.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and USEPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Chemicals Detected
Shallow Groundwater

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 15	57.000	57.00 - 57.00	0.04	1		
* 1,2,4-Trichlorobenzene	UG/L	1 / 12	97.000	97.00 - 97.00	1.80	1		
* 1,4-Dichlorobenzene	UG/L	2 / 26	47.750	7.00 - 88.50	0.44	2		
* 1234678-HpCDD	PG/L	6 / 16	274.845	2.03 - 1007.63	50.00[c]	2		
* 1234678-HpCDF	PG/L	4 / 16	565.995	16.65 - 1160.43	50.00[c]	2		
* 123478-HxCDD	PG/L	2 / 16	989.221	890.25 - 1088.19	5.00[c]	2		
* 123478-HxCDF	PG/L	2 / 16	1137.818	1044.23 - 1231.40	5.00[c]	2		
* 1234789-HpCDF	PG/L	3 / 16	670.682	3.50 - 1095.78	5.00[c]	2		
* 123678-HxCDD	PG/L	2 / 16	1004.115	937.41 - 1070.81	5.00[c]	2		
* 123678-HxCDF	PG/L	2 / 16	916.783	807.40 - 1026.15	5.00[c]	2		
* 12378-PeCDD	PG/L	2 / 16	1080.651	973.22 - 1188.07	1.00[c]	2		
* 12378-PeCDF	PG/L	2 / 16	912.649	837.59 - 987.70	10.00[c]	2		
* 123789-HxCDD	PG/L	2 / 16	975.191	911.68 - 1038.69	5.00[c]	2		
* 123789-HxCDF	PG/L	4 / 16	569.327	4.13 - 1220.61	5.00[c]	3		
* 2,4-Dinitrotoluene	UG/L	1 / 12	79.500	79.50 - 79.50	7.30	1		
* 2-Chlorophenol	UG/L	1 / 12	140.000	140.00 - 140.00	18.00	1		
* 234678-HxCDF	PG/L	2 / 16	911.182	863.61 - 958.75	5.00[c]	2		
* 23478-PeCDF	PG/L	2 / 16	1114.995	956.37 - 1273.62	1.00[c]	2		
* 2378-TCDD	PG/L	2 / 16	182.179	168.45 - 195.90	0.50	2		
* 2378-TCDF	PG/L	2 / 16	220.528	175.10 - 265.94	5.00[c]	2		
* Acetone	UG/L	5 / 14	91.000	6.00 - 400.00	370.00	1		
* Acetophenone	UG/L	2 / 12	1.000	1.00 - 1.00	0.00	2		
* Benzene	UG/L	1 / 15	51.000	51.00 - 51.00	0.34	1		
* Carbon disulfide	UG/L	2 / 15	5.000	1.00 - 9.00	2.10	1		
* Chlorobenzene	UG/L	2 / 15	25.000	2.00 - 48.00	3.90	1		
* Chloroform	UG/L	2 / 15	5.500	1.00 - 10.00	0.15	2		
* Methylene chloride	UG/L	7 / 14	4.285	1.00 - 20.00	4.10	1		
* N-Nitroso-di-n-propylami	UG/L	1 / 12	81.500	81.50 - 81.50	0.00	1		
* OCDD	PG/L	2 / 16	1911.768	1672.14 - 2151.39	500.00[c]	2		
* OCDF	PG/L	2 / 16	1896.065	1427.50 - 2364.62	500.00[c]	2		
* Pentachlorophenol	UG/L	1 / 12	135.000	135.00 - 135.00	0.60	1		
* Tetrachloroethene	UG/L	1 / 15	4.000	4.00 - 4.00	1.10	1		
* Trichloroethene	UG/L	2 / 15	28.500	6.00 - 51.00	1.60	2		
* bis(2-Ethylhexyl)phthalate	UG/L	1 / 12	27.000	27.00 - 27.00	4.80	1		
1,1-Dichloroethane	UG/L	1 / 15	2.000	2.00 - 2.00	81.00			

Chemicals Detected
Shallow Groundwater

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1,2-Dichlorobenzene	UG/L	1 / 26	1.000	1.00 - 1.00	37.00			
1,2-Dichloroethene (total)	UG/L	1 / 15	2.000	2.00 - 2.00	5.50			
1,3-Dichlorobenzene	UG/L	1 / 26	4.000	4.00 - 4.00	54.00			
4-Chloro-3-methylphenol	UG/L	1 / 12	150.000	150.00 - 150.00				
4-Nitrophenol	UG/L	1 / 12	52.500	52.50 - 52.50	230.00			
Acenaphthene	UG/L	2 / 12	44.750	2.00 - 87.50	220.00			
Di-n-butylphthalate	UG/L	2 / 12	2.000	1.00 - 3.00	370.00			
Endosulfan I	UG/L	1 / 8	0.000	0.00 - 0.00	22.00			
Ethylbenzene	UG/L	1 / 15	3.000	3.00 - 3.00	130.00			
Heptachlor	UG/L	1 / 5	0.000	0.00 - 0.00	0.00			
Parathion	UG/L	1 / 1	0.170	0.17 - 0.17	22.00			
Phenol	UG/L	1 / 12	73.000	73.00 - 73.00	2200.00			
Pyrene	UG/L	1 / 12	90.000	90.00 - 90.00	110.00			
Toluene	UG/L	1 / 15	49.500	49.50 - 49.50	75.00			
Total Hepta-Dioxins		7 / 16	190.434	2.03 - 680.08				
Total Hepta-Furans		5 / 16	716.375	3.36 - 1980.12				
Total Hexa-Dioxins		2 / 16	2970.038	2742.37 - 3197.69				
Total Hexa-Furans		7 / 16	865.120	2.40 - 3310.70				
Total Pental-Furans		2 / 16	1840.783	1715.32 - 1966.23				
Xylene (total)	UG/L	1 / 15	6.000	6.00 - 6.00	1200.00			
alpha-BHC	UG/L	1 / 7	0.000	0.00 - 0.00	0.01			
AS	?	5 / 24	18.580	10.00 - 25.90				
BA	?	1 / 24	278.000	278.00 - 278.00				
CA	?	24 / 24	249154.166	39000.00 - 964000.00				
FE	?	9 / 24	14004.555	981.00 - 31900.00				
MG	?	24 / 24	449679.166	14700.00 - 1410000.00				
MN	?	23 / 24	871.391	23.40 - 4850.00				
NA	?	24 / 24	3026229.166	20300.00 - 8120000.00				
NI	?	1 / 24	454.000	454.00 - 454.00				
PB	?	7 / 24	7.842	3.40 - 15.60				
SE	?	1 / 24	6.300	6.30 - 6.30				
TDS	?	3 / 3	5117.500	3940.00 - 7130.00				
ZN	?	2 / 24	37.150	20.90 - 53.40				

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994
TEF used to calculate dioxin equivalent RBC

Tuesday, July 11, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6:00 PM NORTHWOODS ATRIUM (Best Western) off Interstate 26 at Ashley Phosphate Road

RAB members on hand to informally discuss cleanup topics. NOTE: Members of the BRAC Cleanup Team will be out of town for this meeting attending an environmental conference.

7:00 PM Meeting

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting,

C. Environmental Cleanup Progress Report Mr. Tony Hunt

D. Update on Environmental Impact Statement Mr. Will Sloger

E. Update on Redevelopment Authority Actions Mr. Virgil Johnston

F. Update on Environmental Funding

G. Public Relations Subcommittee Report

H. Remaining Questions and Comments from Visitors

I. Other Business including filling method to fill vacancies, Allow time for Community members caucus to select a Co-Chairman

Please mark your calendar: Our next meeting is Tuesday, August 8. The Northwoods Atrium is remodeling and unavailble in August. Location and time of day to be determined. If you have a suggested meeting location please call Annie at 743-9985.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 13 June 1995

1. Call to Order. The meeting was called to order by Mrs. Pat Franklin in the absence of both of the Co-Chairs. She asked that members of the RAB and guests introduce themselves.

2. Introduction of the RAB.

Mrs. Pat Franklin *	Mr. Rick Richter**
Mr. Oliver Addison	Mr. Doyle Brittain
Mr. Bobby Dearhart	Mrs. Susan Floyd
Mr. Daryle Fontenot	Mr. Wilburn Gilliard
Mr. Don Harbert	Mr. Ralph Laney
Mr. Robert Mikell	Mr. Lou Mintz
Mr. Arthur Pinckney	LCDR Nick Cimorelli
Ms. Jeri Johnson***	

*Mrs. Franklin was substituting for Captain Jim Augustin (Navy Co-Chair)
**Mr. Richter was substituting for Ms. Ann Ragan (SC DHEC)
***Ms. Johnson substituting for Mr. Virgil Johnson (CNCRA)

3 Introduction of Visitors.

Mr. Ross Newland	Concerned Citizen
Mrs. June Brittain	Concerned Citizen
Ms. Michelle Glenn	USEPA
Mr. Tony Hunt	SOUTHNAVFAC
Ms. Kimberly Reavis	SOUTHNAVFAC
Mr. Marty Oliver	SOUTHNAVFAC
Mr. Rob Harrell	SOUTHNAVFAC
Mr. Andy Hutto	SOUTHNAVFAC
Mr. Bob Sample	SOUTHNAVFAC
LT Steve Hamer	SOUTHNAVFAC
LCDR Jim Berotti	SOUTHNAVFAC
Mr. Ned Johnson	CHASNAVSHIPYD
Mr. Daniel Ries	CHASNAVSHIPYD
Ms. Ledlie Bell	LWV
Mr. Pete Ballou	GEL
Mr. Jim Beltz	CHASN Base Closure Office
LT Donna Murphy	CNB Public Affairs Officer
Mr. Craig Smith	EnSafe/Allen & Hoshall
Mr. Sam Weatherford	EnSafe/Allen &Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall

4. Comments on Minutes.

Mrs. Franklin asked for comments on the minutes of the last meeting. The minutes were accepted and will be placed in the repositories.

5. Summary of RAB Brainstorming Session.

Mrs. Pat Franklin reported on the morning meeting of the RAB. They talked about the responsibilities of individuals on the RAB, what's working and not working on the RAB, expectations for the RAB and suggestions for improving the RAB meetings. Copies of the minutes from the morning RAB meeting will be typed and forwarded to all RAB members.

6. Update on Environmental Cleanup.

Mr. Tony Hunt, Southern Division Remedial Project Manager for the Charleston Naval Complex, passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) Progress Report for May 1995. (Attached to these minutes is a copy of the report with a map showing where the various Zones are.)

Mr. Hunt reported that the funding status has not changed since the last monthly report for the Investigation Stage. Zones A,B,C,H and I are fully funded. Zone E is funded through December 1995. Zones J and L are funded for RFI Work Plans only. Funding delays are being experienced for Zones D, F, G and K and they remain unfunded. Our Headquarters in Washington (NAVFAC) advised us in mid-May that there was a "hold" on funds and we were asked to prioritize each site and provide information so that they could prioritize the funding Navy wide. We are still in the process of this prioritization. To give an example of how and why this occurred, we started off FY 95 with $34.5 million on the Execution Plan for all of the BRAC environmental work for the Southern Division of NAVFAC. As of the middle of May, that Execution Plan had grown to about $88 million (almost a 300% increase in the amount that could probably be executed in the year). Overall, NAVFAC Headquarters had a request for $200 million and could not meet that request. Fund availability is constrained at approximately $109 million. As this stands right now, we are preparing "risk ranking" on the sites and feel that we have the necessary legal driver on our requests. Hopefully, Southern Division will not see any more delays. If negotiations were to begin almost immediately for the Zones which have no funding and look at the implementation needed for Zones J and L there will be an approximate four week delay in Work Plans for D, F and G and a four to five week delay in beginning the implementation for Zone L. Zone J will not be impacted.

Mrs. Susan Floyd voiced concern that funding was already being cut and no work has even been done and suggested writing letters to Congressmen on behalf of Charleston. Mr. Arthur Pinckney said that he had heard that BRAC funds would

never be cut because the money was already appropriated. Mrs. Pat Franklin said that it wasn't that the funds had been cut, it was that the requirements had increased. Mrs. Susan Floyd questioned why EnSafe had not come closer to the actual amount needed. Mr. Hunt explained that Charleston had not gone up by 300%, but that the Navy across the board had gone up that much. All of the BRAC money is considered Division-wide - not base by base and there are many other closing bases within Southern Division's area of responsibility. He said that the Charleston Execution Plan figures were pretty accurate but that Charleston is affected by increased monetary requirements at other closing bases.

Ms. Jeri Johnson asked if the overall completion schedule was affected. Mr. Hunt explained that the overall schedule would not be affected and that even with the four week delay, the last three zones not funded would actually be completed before the zone scheduled to end last. In terms of the overall project completion, the delay will not be noticeable. Mr. Ralph Laney asked if the funding cuts/delays were just in the Investigative Stage and Mr. Hunt said that the delays would also affect the interim measures.

Ms. Michele Glenn said that the RAB getting "bogged down" by funding issues at this time would not be helpful since things are changing so fast. She also said that Charleston is one of the least likely areas to have funding cuts because of the high profile of the area and because of the excellent progress that has been made here. For instance, Charleston already has a Reuse Plan in place and is close to getting a Record of Decision. Some of the other closing bases are just starting. Those bases are not going to have as high a priority as Charleston.

In response to a question by Mr. Mintz, Mr. Hunt explained that this funding is related only to BRAC 93 and that BRAC 95 funding does not come into play here.

Continuing with his monthly update, Mr. Hunt said that no additional sites were discovered in May, all five volumes of the RCRA Facility Assessment (RFA)have been submitted to USEPA and SCDHEC for approval. Comments on the Work Plan for Zone E (Shipyard Area) have been received and the draft Final Work Plan has been resubmitted to the regulators for approval. The contractor, EnSafe, is preparing subcontracts to begin field investigation. Zones A and B draft final work plans have been submitted for regulatory review. Field work continues in Zones C and I. The status of the samples is included in the Attachment to the minutes. The Corrective Measures Study Work Plan for Zone H is being prepared. as well as the RCRA Facility Investigation (RFI) report. Mr. Doyle Brittain asked that Mr. Hunt explain for the benefit of members and guest what a Corrective Measures Study is. Mr. Hunt explained that as information is gathered from the RFI which contaminants present an additional risk to human health and the environment, a Work Plan has to be developed to decide which is the best way to remediate or remove that contaminant. This Work Plan is called the Corrective Measures Study and it looks at a minimum of three alternatives and includes factors such as cost,

effectiveness, and implementability to come up with the best remedial action. It is then offered for public comment and regulatory review. After that, is a Record of Decision documenting the alternative picked.

The Corrective Action Management Plan (CAMP), which is the project schedule, has been approved. The RAB members will be provided a copy of the CAMP.

Field sampling is at least 80% complete. Zone H is complete. Zone C and I are complete except for sampling of some groundwater monitoring wells.

Projected progress for June is to submit Zones J and L work plans for regulatory review. Zone J is the ecological study; Zone L is the investigation of the sewer systems and railroad areas. Zone L also includes the stormwater sewer and sanitary sewer. Zones C and I field work, which is groundwater sampling, will continue and the RFI report will be submitted for Zone H. The RFI report was to be received by the Navy about 5 June. The development of the RFI report has proven to be more difficult to prepare than was anticipated. There are a number of factors involved in determining background determination for a particular zone. The Navy and contractor have been working with the regulators on determining background for the past few weeks. Once the background determination is made, contaminants of potential concern can be identified and the risk assessment can be performed. It has been a slow process but results are expected soon. Mr. Hunt displayed an isopleth showing an example of how the contaminant concentrations will be mapped.

In summary, there will be about a four week delay in starting the work plans for Zones D, F, G, and K. Zone L will experience a four to five week delay in implementation of the field work. Zone H report issues are being resolved. Zones C and I field work is continuing on schedule.

Mr. Ralph Laney commented that the RAB needed a funding brief as soon as possible and based on the outcome of the brief, write to the Defense Environmental Response Task Force (DERTF) and express concerns of the RAB regarding the funding.

Mrs. Pat Franklin announced to the group that as soon as NAVFAC Headquarters settles the funding issues a complete report on funding and budget would be put on the agenda for a meeting.

7. <u>Update on Environmental Impact Statement (EIS).</u>

Mr. Bobby Dearhart announced that the word was received earlier in the day that the Assistant Secretary of the Navy had signed the EIS. This was earlier than had been anticipated. Mr. Dearhart commended Mr. Will Sloger, the Southern Division associate in charge of managing the preparation of the EIS. Mr. Sloger went to Washington and personally helped push through the approval. This means that the

Navy agrees with the EIS and has sent it to the USEPA to publish the announcement in the Federal Register. When the announcement is published, another 30-day public review period starts. That should happen by 23 June 1995. All RAB members will get a copy of the EIS next week. The public review period will be complete about 24 July and a Record of Decision will probably be signed by 1 August. The major change in the EIS was the addition of the 3.b. alternative which eliminated the State Ports Authority from using the Southern end of the Base and allowed for a Maritime Shipbuilding/Repair Complex.

8. Update of Redevelopment Authority.

Ms. Jeri Johnson talked from a map which showed properties that are either under lease, have leases being pursued or the activity owns the property. Building 198, the former Naval Supply Headquarters,is being occupied by the Defense Finance and Accounting Service. They will eventually employ about 700 people. The Postal Service will soon be leasing one floor of Building 400, the Public Works Center. They will eventually employ about 400 people part time for shift work.

Negotiations are ongoing with Babcock and Wilcox (B&W) for the Machine Shop. The CNCRA is hoping for a hot turnover from the Shipyard by August. They will start with about 40 jobs and be up to about 90 in six months. Babcock and Wilcox is eager to employ displaced CNSY Machine Shop employees. Only two people will be from outside the area. All others will be hired from the Charleston area. Mr. Arthur Pinckney asked how B&W locating on the Shipyard would affect other development. Ms. Johnson said that the effect would be positive. Of the 13 proposals received, 4 were selected. B&W was rated number one. Two of the other 3 proposers are ship repair companies who would possibly use B&W and have no objection to their presence. There is no conflict in what the other proposers asked for and what B&W asked for.

Discussions are on-going with Braswell and Charleston Marine Manufacturing Corporation (CMMC) about which area they might get.Negotiations will be opened and concluded with each firm in order of their ranking under the Request for Proposals.

All of the leases being entered into with the proposers are 5-year leases. One short term lease with CMMC to use Drydock 5 for a few months many be done in addition to the Request for Proposal process.

CMMC has also asked for Shore Intermediate Maintenance Activity (SIMA) buildings at the Southern end of the Base as well as some of the smaller piers.

The National Oceanic and Atmospheric Administration (NOAA) will continue to occupy the space they are in at the Southern end of the Base as well as Pier R and possibly Pier Q as they expand their operations.

The State Department will remain. The National Civilian Community Corps (NCCC) is leasing the former Fleet Mine and Warfare Training Building for classrooms. They are also occupying some of the Barracks and are considering leasing the Galley.

The Federal Credit Union has asked for a lease on the Southern end just in case there is enough activity in the area to justify reopening.

The Coast Guard has made an informal request for Pier P to bring in two ships.

The National Guard has probably backed out of wanting property because of lack of funding to modify the property.

The Marina is the only lease that has been finalized. The Marina is available for public use now even though the Base still has Security Gates.

The CNCRA hopes to have several leases finalized in the near future but others can't move in as long as the Navy is here.

Ms. Johnson pointed out two large recreational areas including a ballpark, swimming pool and picnic areas on the map which is being considered for lease to North Charleston.

Ms. Johnson said that the McKinney Act Task Force has decided to reconsider the properties they have asked for. At the present time they seem to be interested in the area around the old Naval Hospital. Their request is due back to the CNCRA next month.

Mr. Bobby Dearhart asked if any of the leases were time critical. Ms. Johnson said that the Post Office lease was critical and that there was property on Rivers Avenue they were considering if the lease did not come through in time.

Also, Babcock and Wilcox is anxious to start up in August.

In response to a question by Mr. Mintz, Ms. Johnson explained that any and all new proposals for reuse can be considered once the leases are in place as a result of the formal Request For Proposal (RFP) process. This process should be complete in two months or so.

Mr. Ross Newland said that he though the community would be better off if the Post Office did go to Rivers Avenue and have the Base reserved for private company use. Ms. Johnson said that the CNCRA was not going after government agencies or companies already in the area but would be going after any new entities whether government or private if new jobs would be created. In other words, the CNCRA

would not recruit someone to come on Base if they were already doing business in the Charleston area.

Mr. Pinckney asked if the CNCRA was still looking for International Shipbuilders. Ms. Johnson said that the State Department or Commerce was contacting some International Shipbuilders.

Mr. Doyle Brittain expressed his thanks to the new CNCRA for the aggressive start they have made on reuse. He said that he had been pushing for a meeting between the new CNCRA and the BRAC Closure Team (BCT)so that the CNCRA could be briefed by the BCT. No meeting has taken place and he asked that Ms. Johnson take this request back to the CNCRA and get a time set up for the briefing. He stressed that with all of the activity going on with leases and transfers it was extremely important to develop a working relationship between the CNCRA and the BCT. He also said it was important that the CNCRA coordinate with the BCT to insure that all laws and regulations are being complied with before the process goes any further. The CNCRA needs to be aware that there are certain things that can't be done and there is no need to lease property that will require environmental permits. For instance, there are environmental permits that have to be issued with regard to leasing Drydock 5.

Mr. Dearhart stated that he had been in touch with Mr. Robert Ryan of the CNCRA on Monday of this week and set a tentative date of Wednesday, June 14, 1995 for he and Mr. Brittain to meet with Mr. Ryan and Mr. Ravenel on the CNCRA.

Mr. Brittain said that while there may be communication between the CNCRA and the Navy, the communication needs to be between the CNCRA and the BCT.

In conclusion, Ms. Johnson said she would reduce the reuse map to a handout size and provide copies to the RAB members.

9. Report on Asbestos Survey and Cleanup.

Mr. Marty Oliver from the Environmental Department of Southern Division reported on the asbestos. He explained that asbestos was first used in 2500 BC. The two major characteristics of asbestos are that it is a good insulator and is fire-proof. The Department of Defense (DOD) has used Asbestos Containing Material (ACM) in over 3600 different applications.

Problems started being noticed with people working with ACM in the early 1900s. The primary problems are lung cancer, asbestosis and mesothelioma. Since then, U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) have written several regulations to control people working in and around ACM.

The two major forms of asbestos are known as friable and non-friable. A friable asbestos fiber is one that will release itself easily in the air with hand applied pressure. Non-friable ACM is that material which is not easily broken up. Industry knows that pipe-lagging is friable asbestos. It is 100% asbestos and , if not bound, will release itself in the air. Non-friable asbestos bound with cement or asphalt would be hard to render friable in the air.

After Hurricane Hugo, over $1 million was spent at the Charleston Air Force Base (CAFB) removing floor tile as a friable ACM. In 1991 the EPA wrote special regulations that addressed floor tile, gaskets and asphalt roofing materials.

The asbestos program at the Charleston Naval Base is not new. It started in 1986 when Westinghouse conducted the first asbestos inventory at the Naval Station by doing non-destructive testing. This means that they looked at damaged , friable, accessible asbestos. They did not tear out walls or ceilings to determine if non-friable asbestos was present. This is DOD's Base Realignment and Closure policy. The buildings will be made safe for public health and the environment by removing any fiber-producing, friable, damaged asbestos. A copy of the DOD policy on asbestos is attached to these minutes. It states that ACM will be remedied if it is of a type and condition that is not in compliance with applicable laws, regulations and standards, or if it poses a threat to human health at the time of transfer. It also states that all available information on the existence, extent and condition of the ACM will be incorporated into the Environmental Baseline Survey report to be provided to the transferee. The transferee will also be provided an Asbestos Maintenance Plan and they should pass it on to the Janitorial Staff or Maintenance Personnel.

There are different rules if the transferee is going to demolish the building. There is no sense in wasting funds to abate the asbestos if the building will be demolished. The asbestos will be left in place and can be taken to a construction landfill when the building is demolished.

Mr. Mintz asked if asbestos shingles from a building would have to be taken to a hazardous waste site or just a construction site. Mr. Oliver said that it would depend on contractor work practices. If the contractor didn't render the asbestos friable by cutting or grinding the shingles, then they could go to a construction waste landfill. Mr. Mintz also asked about asbestos floor tile. Mr. Oliver said that asbestos floor tile does not have to be removed. It should be kept waxed with a low speed buffer.

Mr. Dearhart asked that "accessible" be defined. Mr. Oliver said that it would be determined building by building. For instance, if there is an air plenum with asbestos in it, then it would be accessible asbestos. If asbestos is in a home attic,

and no one goes in the attic, then it is not accessible. If the attic is used for storage, then the asbestos is accessible.

Mr. Dearhart mentioned that many buildings on the Base had "Caution-Asbestos" signs because of asbestos in the crawl space. He wanted to know if that was considered "accessible." Mr. Oliver said that under Navy policy, this is determined on a case by case basis. Normally, if there are signs and a lock, then it is not accessible. If someone, a pipefitter for instance, had to go under the building to repair a pipe, then he would know to wear a mask.

Mr. Oliver said that an interesting note was that when asbestos was removed in all of the schools, the fiber count was higher after removal than before.

10. Report on Polychlorinated Biphenyls (PCBs)

Mr. Rob Harrell of the Environmental Department of Southern Division reported on PCBs. He said that PCBs are an additive used in many products, but primarily in electrical equipment. The equipment ranges from fluorescent light ballasts to transformers. The Toxic Substance Control Act now prohibits the manufacture of PCBs and the use and disposal of the remaining PCBs in tightly controlled by Federal Regulations. The Navy has taken a very aggressive position on removing PCBs and many Navy activities and bases are "PCB-free." This means that all known regulated PCB equipment has been removed and they have a plan to handle the discovery of new PCB items.

The largest source of unregulated PCBs is the fluorescent light ballast. The U. S. EPA requires that all ballasts manufactured between 1 July 1979 and 1 July 1998 be marked to indicate that they are PCB free. Fluorescent light ballasts will not affect the transfer of buildings.

Mr. Mintz asked if there were PCBs in the transformers at the Naval Base. Mr. Ralph Laney said that the transformers at substations and on poles have been checked for PCBs and they have been changed out. There may be transformers in buildings that are discovered as buildings are closed. These will be changed out. If PCBs are contained, they don't have to be removed, but removing PCB containing equipment will reduce the Navy's liability.

Exposure to PCBs normally occurs by eating food (generally fish), soils or liquids that contain PCBs. Many high voltage electricians have been exposed to PCBs for years with no ill effects. The health effects of PCBs range from a benign accumulation in the body fat, to chlorine acne to liver damage. Because PCBs bio-accumulate, tracking can be difficult. Effects also take a long time to develop.

11. Report on Storage Tank Removals and Cleanup.

Mr. Andy Hutto of the Environmental Department at Southern Division reported on the Storage Tank Program. Our goal is remediation of petroleum contaminated sites. Underground Storage Tanks (UST) are regulated by the State. We also have Aboveground Storage Tanks. (ABT) These are not regulated but if contamination has occurred it will be remediated. Pipelines also come under the Storage Tank Program. There are a lot of storage tanks and pipelines at the Base and a Tank Management Plan is being developed. The Tank Management Plan consists of a comprehensive inventory of USTs, ASTs and pipelines. For regulated tanks, it is the straightforward as to how to deal with them. Closure and reuse of unregulated tanks have some leeway. Unregulated tanks will be field screened to determine if there is contamination or the potential for contamination and a determinmation made if the tank will be neeeded for future reuse. Closure and removal schedules will then be developed.

After the Tank Management Plan is in place, we will probably end up with many contaminated sites. Then a Petroleum Remediation Plan will be developed. This will be a consolidated list of all petroleum contaminated sites. This will be coordinated with the Installation Restoration (IR) Program. If a site is determined to best come under the IR Program, then it will be turned over so that there is no duplication of effort.

With the vast number of tanks and pipelines on the Base, cost effectiveness of several options will be looked at. It may not be possible to dig up everything and take it off site for disposal.

After all of the petroleum sites are identified the State will track the sites by assigning a Groundwater Protection Department Number to each site.

The Navy hopes to have all of this investigation and planning done by October 1995 so that removals can begin sometime in Fiscal Year 96.

12. Public Relations Subcommittee Report.

Mrs. Pat Franklin reported on the morning meeting of the Public Relations Subcommittee. Since the last RAB meeting, Fact Sheet No. 4 has been published. It looks at the difference between the RCRA and the National Environmental Policy Act (NEPA) process. The Community Relations Plan has been reviewed. It should be finalized shortly and the RAB members will receive a copy.

13. Training Subcommittee Report.

Mr. Bobby Dearhart reported that a letter had been received from the Defense Environmental Response Task Force on funding for training of RAB members. A notice was put in the Federal Register on 24 May 1995 for a 30-day public review and comment period. Copies of the letter were provided to the RAB members.

14. Other Business.

Mrs. Susan Floyd asked that EnSafe/Allen and Hoshall be put on a future agenda to do their sampling demonstration again.

Mr. Bobby Dearhart announced that Mr. Will Sloger, the Southern Division engineer in charge of the Environmental Impact Statement would be at the July RAB meeting to answer any questions regarding the document.

15. Adjournment.

It was announced that the next meeting is scheduled for 11 July 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 pm to 9:00 pm with an informal discussion hour beginning at 6:00 pm.

Minutes approved by: _____ _____

J.H. AUGUSTIN
CAPT, CEC, USN
Co-Chairman

JACQUELINE WHITE
Co-Chairman

Attachments to Minutes
(1) Progress Report for May
(2) DOD Asbestos Policy at BRAC Properties
(3) DOD Funding for Training Letter

DOD POLICY ON ASBESTOS AT BASE REALIGNMENT AND CLOSURE PROPERTIES

Department of Defense (DoD) policy with regard to asbestos-containing material (ACM) is to manage ACM in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing ACM hazards. Therefore, unless it is determined by competent authority that the ACM in the property does pose a threat to human health at the time of transfer, all property containing ACM will be conveyed, leased, or otherwise disposed of as is through the Base Realignment and Closure (BRAC) process.

Prior to property disposal, all available information on the existence, extent, and condition of ACM shall be incorporated into the Environmental Baseline Survey (EBS) report or other appropriate document to be provided to the transferee. The survey report or document shall include:

- reasonably available information on the type, location, and condition of asbestos in any building or improvement on the property;
- any results of testing for asbestos;
- a description of any asbestos control measures taken for the property;
- any available information on costs or time necessary to remove all or any portion of the remaining ACM; however, special studies or tests to obtain this material are not required; and
- results of a site-specific update of the asbestos inventory performed to revalidate the condition of ACM.

Asbestos-containing material shall be remedied prior to property disposal only if it is of a type and condition that is not in compliance with applicable laws, regulations, and standards, or if it poses a threat to human health at the time of transfer of the property. This remediation should be accomplished by the active Service organization, by the Service disposal agent, or by the transferee under a negotiated requirement of the contract for sale or lease. The remediation discussed above will not be required when the buildings are scheduled for demolition by the transferee; the transfer document prohibits occupation of the buildings prior to the demolition; and the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

COUISITION AND
TECHNOLOGY

26 MAY 1995

DUSD(ES)/CL

MEMORANDUM FOR RESTORATION ADVISORY BOARD (RAB) MEMBERS

SUBJECT: Technical Assistance for Public Participation in the Defense Environmental Restoration Program--Federal Register Notice of Request for Comments

The FY1995 National Defense Authorization Act gave DoD new authority to provide technical assistance funding to citizens affected by the environmental restoration of DoD facilities. A working group comprised of representatives of the Secretary of Defense, the military departments and defense agencies has been working over the past 6 months to identify options for providing this assistance. The working group identified three options:

Option A: Use EPA's Technical Assistance Grant Mechanism
Option B: Procure One or More Technical Assistance Providers
Option C: Issue Purchase Orders to Assistance Providers.

The enclosed Federal Register Notice describes each option, and solicits comments from the public. Comments are due by July 24, 1995. Once comments are considered, and we identify a preferred option, we intend to publish in the Federal Register an interim rule outlining how citizens may apply for technical assistance.

Since you are involved in a Restoration Advisory Board (RAB), I felt you should have a copy of the notice, for information, and comment should you choose to do so. Please share this notice with others who may want to comment, especially the community co-chair of your RAB, and other citizen members.

Patricia L. Fenwick
for Patricia A. Rivers
Assistant Deputy Under Secretary of Defense
(Environmental Cleanup)

Enclosure

cc: Community RAB Members

Attachment (3)

expense of $200,000 on research to test a p[illegible] in response to requirements imposed [illegible] United States Food and Drug Administration (FDA). X is able to show that, even though country Y imposes certain testing requirements on pharmaceutical products, the research performed in the United States is not accepted by country Y for purposes of its own licensing requirements, and the research has minimal use abroad. X is further able to show that its FSC sells goods to countries which do not accept or do not require research performed in the United States for purposes of their own licensing standards.

(ii) *Allocation.* Since X's research expense of $200,000 is undertaken to meet the requirements of the United States Food and Drug Administration, and since it is reasonable to expect that the expenditure [illegible] gross income (beyond de *minimis* amounts) outside the United States, the deduction is definitely related and thus allocable to the residual grouping.

(iii) *Apportionment.* No apportionment is necessary since the entire expense is allocated to the residual grouping, general limitation gross income from sales within the United States.

Example 6—Research and experimentation—(i) Facts. X, a domestic corporation, is engaged in continuous research and experimentation to improve the quality of the products that it manufactures and sells, which are floodlights, flashlights, fuse boxes, and solderless connectors. X [illegible] and deducts $100,000 of expenditure [illegible] and experimentation in 1997 which was performed exclusively in the United States. As a result of this research activity, X acquires patents which it uses in its own manufacturing activity. X licenses its floodlight patent to Y and Z, uncontrolled foreign corporations, for use in their own territories, countries Y and Z, respectively. Corporation Y pays X an arm's length royalty of $3,000 plus $0.20 for each floodlight sold. Sales of floodlights by Y for the taxable year are $135,000 (at $4.50 per unit) or 30,000 units, and the royalty is $9,000 [illegible] 000+$0.20×30,000). Y has sales of other products of $500,000. Z pays X an arm's length royalty of $3,000 plus $0.30 for each unit sold. Z manufactures 30,000 floodlights in the taxable year, and the royalty is $12,000 [illegible] ,000+$0.30×30,000). The dollar value of floodlight sales is not known and cannot be reasonably estimated because, in this case, floodlights are not sold separately by Z [illegible] are instead used as a component in Z's manufacture of lighting equipment for theaters. The sales of all Z's products including the lighting equipment for theaters are $1,000,000. Y and Z each sell the floodlights exclusively within their respective countries. X's sales of floodlights in the taxable year are $500,000 and its sales of other products, flashlights, fuse boxes, and solderless connectors, are $400,000. X's gross income of $500,000, consisting of [illegible] income from domestic sources of [illegible],000 and royalty income of $9,000 and [illegible] foreign corporations Y and Z [illegible]

(*ii*) *Allocation.* X's research and experimental expenses are definitely related to all of the products that it produces, which are floodlights, flashlights, fuse boxes, and solderless connectors. All of these products are in the same three digit SIC Code category, Electric Lighting and Wiring Equipment (SIC Industry Group 364). Thus, X's research and experimental expenses are allocable to all items of income attributable to this product category, domestic sales income and royalty income from the foreign countries in which corporations Y and Z operate.

(iii) *Apportionment.* (A) The statutory grouping of gross income is general limitation income from sources without the United States. The residual grouping is general limitation gross income from sources within the United States. X's deduction of $100,000 for its research expenditures must be apportioned between the groupings. For apportionment on the basis of sales in accordance with paragraph (e)(3)(ii) of this section, X is entitled to an exclusive apportionment of 50 percent of its research and experimental expense to the residual grouping, general limitation gross income from sources within the United States, since more than 50 percent of the research activity was performed in the United States. The remaining 50 percent of the deduction can then be apportioned between the residual and statutory groupings on the basis of sales. Since Y and Z are unrelated licensees of X, only their sales of the licensed product, floodlights, are included for purposes of apportionment. Floodlight sales of Z are unknown, but are estimated at ten times royalties from Z, or $120,000. All of X's sales from the entire product category are included for purposes of apportionment on the basis of sales. Alternatively, X may apportion its deduction on the basis of gross income, in accordance with paragraph (e)(3)(iii) of this section. The apportionment is as follows:

(*1*) *Tentative Apportionment on the basis of sales*

(*i*) Research and experimental expense to be apportioned between statutory and residual groupings of gross income: $100,000

(*ii*) Less: Exclusive apportionment of research and experimental expense to the residual groupings of gross income ($100,000 x 50 percent): $50,000

(*iii*) Research and experimental expense to be apportioned between the statutory and residual groupings of gross income on the basis of sales: $50,000

(*iv*) Apportionment of research and experimental expense to the residual grouping of gross income: ($50,000×$900,000/($900,000+$135,000+$120,000)): $38,961

(*v*) Apportionment of research and experimental expense to the statutory grouping, royalty income from countries Y and Z ($50,000×$135,000+$120,000/($900,000+$135,000+$120,000)): $11,039

(*vi*) Total apportioned deduction for research and experimentation: $100,000

(*vii*) Amount apportioned to the residual grouping ($50,000+$38,961): $88,961

(*viii*) Apportioned to the statutory grouping of sources within countries Y and Z: $11,039

(*2*) *Tentative apportionment on gross income basis*

(*i*) Apportionment of research and experimental expense to the residual grouping of gross income: ($100,000×$479,000/$500,000): $95,800

(*ii*) Apportionment of research and experimental expense to the statutory grouping of gross income: ($100,000×$9,000+$12,000/$500,000): $4,200

(*iii*) Amount apportioned to the residual grouping: $95,800

(*iv*) Amount apportioned to the statutory grouping of general limitation income from sources without the United States: $4,200.

(B) Since X's apportionment on the basis of gross income to the statutory grouping, $4,200, is less than 50 percent of its apportionment on the basis of sales to the statutory grouping, $11,039, it may use Option two of paragraph (e)(3)(iii)(B) of this section and apportion $5,520 (50 percent of $11,039) to the statutory grouping.

Examples (9) through (16).—[Reserved]

* * * * *

Example (23).—[Reserved]

* * * * *

Margaret Milner Richardson,
Commissioner of Internal Revenue.

[FR Doc. 95-12621 Filed 5-19-95; 9:25 am]

BILLING CODE 4830-01-U

DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 203

Technical Assistance for Public Participation

AGENCY: Department of Defense, Office of the Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)).

ACTION: Notice of request for comments.

SUMMARY: Consistent with section 326 of The National Defense Authorization Act for Fiscal Year 1995 (NDAA-95), the Department of Defense intends to publish interim rules for providing technical assistance funding to citizens affected by the environmental restoration of Department of Defense facilities. This request for comments discusses and solicits comments on several options the Department of Defense is considering for providing assistance to community members of Technical Review Committee (TRCs) and Restoration Advisory Boards (RABs) to obtain technical advisors and facilitate the participation of these members and affected citizens in environmental restoration activities at their associated installations. The Department of Defense will consider these comments in formulating an Interim Final Rule.

DATES: Written comments must be received on or before July 24, 1995.

DDRESSES: Send written comments to the Office of the Deputy Under Secretary of Defense for Environmental Security/Cleanup, 3400 Defense Pentagon, Washington, DC 20301-3400.

OR FURTHER INFORMATION CONTACT: Patricia Ferrebee or Marcia Read, telephone (703) 697-7475.

UPPLEMENTARY INFORMATION: Today's request for comments has the following sections:

Background
Options for Providing Assistance
Requests for Comments

Background

The Department of Defense is engaged in environmental investigations, removal actions, treatability studies, feasibility relocations efforts, interim remedial actions, cleanups, and operation and maintenance activities at approximately 1600 active installations, closing installations, and 2200 formerly utilized defense properties in the United States under the Defense Environmental Restoration Program (DERP, 10 USC Chapter 160).

The Department of Defense has issued policy for establishing Restoration Advisory Boards (RABs) at all installations. On September 9, 1993, the Department of Defense issued policy for establishing RABs at installations designated for closure or realignment under Base Realignment and Closure (BRAC) Acts of 1988 and 1990 where property will be available for transfer to community. On April 14, 1994, the Department of Defense issued RAB policy for non-closing installations as part of Management Guidance for Execution of the FY94/95 and Development of the FY96 Defense Environmental Restoration Program. This policy called for the establishment of RABs at Department of Defense installations where there is sufficient, sustained community interest. Criteria for determining sufficient interest are: (1) government requests that a RAB be formed; (2) fifty local residents sign a petition requesting that a RAB be established at installation; or (3) a RAB is needed. On September 1, 1994, the Department of Defense and the Environmental Protection Agency (EPA) issued joint RAB guidelines on how to stand up and implement a RAB. These guidelines are now in effect for all installations.

The purpose of a RAB is to bring together people who reflect the diverse interests within the local community, to ensure the early and continual flow of information between the affected community, the military installation, and environmental oversight agencies. The Department of Defense is established, or is in the process of establishing, RABs to ensure that all stakeholders have a voice and can actively participate in a timely and thorough manner in the review of environmental restoration activities and projects at an installation. RAB community members provide advice as individuals to the decision-makers on restoration issues. This forum is used for the expression and careful consideration of diverse points of view. The RAB complements other community involvement efforts, but does not replace them.

On October 5, 1994, Congress passed the National Defense Authorization Act for Fiscal Year 1995 (NDAA-95, Public Law 103-337), which contained specific provisions for RABs (amending 10 USC 2705 which contains requirements for Technical Review Committees (TRCs) under the Superfund Amendments and Reauthorization Act). Section 326(a) [Section 2705(d)(2)] of the NDAA-95 requires the Secretary of Defense to prescribe regulations on the characteristics, composition, funding and establishment of RABs. Section 326(b) of the NDAA [Section 2705(e)(2)(C)] authorizes the Department of Defense to make funds available to community members of TRCs and RABs to: (1) Obtain technical assistance in interpreting scientific and engineering issues with regard to the nature of environmental hazards at an installation and the restoration activities proposed for or conducted at the installation; and (2) assist such members and affected citizens to participate more effectively in environmental restoration activities at the installation. Section 326(b) [Section 2705(e)(3)(A) and (B)] specifies that funds for community members of TRCs and RABs at closing and non-closing installations be provided from the BRAC and Defense Environmental Restoration Account (DERA), respectively, and that the total amount of funds from these accounts not exceed $7,500,000. This paragraph [Section 2705(e)(2)(B)] and [illegible] states that funding can be [illegible] and RAB members only if the [illegible] in the vicinity of the installation [illegible] not potentially responsible parties.

The Department of Defense has developed a number of options for providing technical and public participation assistance to community members of TRCs and RABs. The Department of Defense is issuing this request for comments to notify the public of its efforts, and to solicit comments on a number of promising funding options. The Department of Defense will publish an interim rule specifying [illegible] mechanisms after considering comments received.

II. Options for Providing Assistance

The Department of Defense is seeking to provide technical and public participation assistance to community members of TRCs and RABs at its facilities in the most efficient manner. Technical assistance under this program means the provision of technical advisors, facilitators, mediators, and educators. Public participation assistance means the provision of training and related expenses. Three options are being considered for providing expeditious assistance to TRCs and RABs. These options are described separately in the following sections, but are not mutually exclusive.

Option A: Use EPA TAG and TOSC Mechanisms

This option for providing assistance to community members of TRCs and RABs at Department of Defense facilities involves the use of existing vehicles under EPA's Technical Assistance Grant (TAG) and Technical Outreach Services to Communities (TOSC) program. The TAG program provides funds for qualified citizens groups affected by a site on EPA's National Priorities List (NPL) to hire independent technical advisors to help interpret and comment on site-related information. Under this option, the Department of Defense and EPA would sign a Memorandum of Understanding (MOU) authorizing EPA to provide additional assistance to community organizations subject to existing TAG regulations. EPA Regional TAG specialists would provide outreach to community members of TRCs, RABs or other members of the community desiring technical assistance and would assist them throughout the application process and during the post-award administration phase. The Department of Defense would reimburse EPA for all awarded TAGs at Department of Defense facilities. Under this option, community members at NPL installations would obtain [illegible] technical assistance [illegible] this option, the TAG regulations [illegible] the Federal Register on October 1, 1992, page 45311 through 45321, and recorded in 40 CFR Part 35, Subpart M, would be followed. These regulations allow for one TAG award per NPL facility but would not preclude the same community group from applying for additional technical assistance.

The TOSC is a pilot program funded by EPA to provide communities affected by hazardous waste sites with a variety of technical support services. The TOSC

program complements EPA's TAG program by serving as a mechanism for [illegible]ding technical assistance to communities near non-NPL hazardous waste sites. The TOSC program provides services to communities through five geographically-based Hazardous Substance Research Centers (HSRCs) created in 1986. Each HSRC is a consortium of universities which supports two EPA Regions (i.e. Regions 1&2, 3&4, 5&6, 7&8, 9&10). Each HSRC provides independent technical resources and services that are flexible and tailored to the identified needs of a community. HSRC researchers and professionals are available to conduct technical and educational programs in a [illegible] technical documents, provide comments on proposed actions, and answer questions. Under this option, the Department of Defense and EPA would sign an MOU that makes the TOSC program available to community members of TRCs, RABs, and other community groups through EPA Superfund Regional Community Relations Staff. EPA Regional Community Relations Staff would provide outreach near a Department of Defense facility to community members desiring TOSC support, would review proposals for assistance from community members, and would work with them throughout the approval and post-approval process. The Department of Defense would reimburse EPA for TOSC service rendered. Under this option, community members of TRCs and RABs at non-NPL installations would obtain technical advisors and related services from designated HSRCs.

Option B: Procure One or More Technical Assistance Providers

This option would involve the competitive procurement of one or more independent technical assistance providers to provide technical and public participation assistance to community members of TRCs and RABs at Department of Defense facilities. This assistance would be [illegible] administrative support [illegible] RABs and [illegible] installations. One or more technical assistance providers would provide this assistance and would carry out many of the administrative and financial management requirements associated with a technical and public participation assistance program. An announcement, a procurement for technical assistance providers, would be added to the Federal Register [illegible] in conjunction with the publication of the Interim Final Rule mentioned in Section [illegible]. Actual awards to one or more qualified technical assistance providers would be made via grants or cooperative agreements based on the results of an independent selection process. Recent experience with a similar grants process in the Department of Defense suggests that this option will involve a five or six month procurement process beginning with a formal announcement of a competition in the Federal Register and ending with awards to technical assistance providers.

At a later date, the Department of Defense plans a Federal Register announcement requesting expressions of interest to serve as a technical assistance provider. As indicated in that announcement, the technical assistance [illegible] assistance and public participation assistance to community members of TRCs and RABs. The provider would be responsible for receiving, evaluating, and making recommendations on applications from RABs for support and for providing the applications to the appropriate DoD approving official based on DoD established criteria. Once the approving official has selected the applications, the technical assistance provider would assume full responsibility for ensuring that the technical services and public participation support provided are delivered in a timely and effective manner to community members of TRCs and RABs, and that all funds are managed and dispersed in full compliance with appropriate Department of Defense regulations. The technical assistance provider would be responsible for supporting TRC and RAB requests nationwide or within a particular geographic area. Minimum qualifications for a technical assistance provider are:

(1) Perceived as neutral and credible.

(2) Either have or be able to obtain an interdisciplinary staff with demonstrated expertise in hazardous substance remediation, investigation, management and/or research.

(3) Management capability, for both financial and scientific management, and a demonstrated skill in planning and scheduling projects of comparable magnitude to that discussed in this Announcement.

(4) Ability to provide facilitation and mediation services.

(5) Knowledge and experience in environmental restoration activities preferably at federal facilities.

(6) A demonstrated ability to disseminate results of hazardous substance information through an interdisciplinary program to locally affected and concerned citizens.

(7) The ability to perform the required tasks either nationally or within a defined geographic area.

(8) Not-for profit.

Under this option, community members of TRCs and RABs would be responsible for making requests to the community co-chair or designated members of the TRC or RAB responsible for applying to the designated technical assistance provider for assistance and for preparing facility specific statements describing the type and level of support requested. The technical assistance provider would be responsible for allocating available resources among these competing requests using general guidelines and established criteria provided by Department of Defense.

Option C: Issue Purchase Orders to Assistance Providers

This option would involve the issuance of purchase orders to technical and public participation assistance providers up to the allowable government purchase limit per purchase order (now at $25,000). If multiple purchase orders were needed to assist community members of a particular TRC or RAB, the combined sum of these purchase orders could not exceed a specified allotment. Qualified assistance providers would be selected by the community members of a TRC or RAB at each Department of Defense facility using guidelines provided by the Department of Defense. Under this option, community members of the TRC or RAB would provide a description of the services it is requesting to a Department of Defense contracting office along with a cost estimate, and would identify the assistance provider and the provider's statement of qualifications. A minimum set of organizational qualifications for receiving a purchase order would be specified under this option by the Department of Defense. These qualifications would be promulgated as part of an Interim Final Rule.

Under all options described in the [illegible] the local [illegible] would continue to be responsible for providing administrative support in accordance with joint EPA and Department of Defense Restoration Advisory Board Implementation Guidelines issued September 27, 1994.

III. Requests for Comments

Today the Department of Defense solicits comments on the options for providing technical and public participation assistance to community members of RABs or TRCs. Each of the options described in Section II of this notice have strengths and weaknesses

ction A is the most timely option. A di advantage of using existing EPA chanisms to provide support but o has the attached limitations of the G and TOSC programs as to the type support which could be provided. ction B would procure independent hnical assistance providers for the ogram and would relieve community embers of TRCs and RABs of much of administrative burden associated th managing government grants; wever, it requires the time needed for ompetitive procurement and does not ovide the funds directly to mmunity members of TRCs and Bs. Option C allows greater control d flexibility by community members. imposes greater administrative rdens on community members of RCs and RABs and on the contracting fice issuing the purchase order. The partment of Defense is interested in termining the opinions of affected izens and groups on these options is would include preferences for rticular options over others. It would so include comments on the dividual options and the components those options as described in Section Tbere also exists the possibility of mbining one or more of the Section B tions. The Department of Defense licits any comments or suggestions garding option combinations. The epartment of Defense also solicits mments on specific aspects of each tion as well as on additional options sired to provide for technical and blic participation assistance.

Within the options are specific items r which the Department of Defense licits comments. These include the alifications given for the independent chnical assistance providers described Option B. Comments on either the list qualifications provided or on dditional qualifications which should added are encouraged. Both Options and B have provisions for the division the country into geographic areas th different service providers for each ea. Do those commenting have eferences regarding nationwide versus gionalized coverage by service oviders for these options? All options ll be subject to an allotment cap. Those ose commenting have suggestions as the size of such a cap or the criteria hich should be use to establish a cap? he Department of Defense has eveloped a list of public participation rvices it believes should be provided nder Options B and C in addition to ring technical advisors, facilitators ediators and educators. These services e: translation and interpretation, aining, transportation to meetings, and payment of approved travel. Comments on these or other services to be included under Options B and C are encouraged.

Dated: May 18, 1995.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 95–12628 Filed 5–23–95; 8:45 am]

BILLING CODE 5000–04–M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 165

[CGD13–90–028]

RIN 2115–AE06

Regulated Navigation Area: Puget Sound and Strait of Juan de Fuca, WA; Grays Harbor, WA; Columbia River & Willamette River OR; Yaquina Bay, OR; Umpqua River, OR; Coos Bay, OR

AGENCY: Coast Guard, DOT.

ACTION: Notice of termination.

SUMMARY: This rulemaking project was initiated to adopt regulations requiring an emergency tow-wire on tank barges while transiting certain port areas of the Pacific Northwest. The project is no longer necessary because the Coast Guard issued separate regulations on December 22, 1993, which require an emergency tow wire or tow line on all offshore oil barges. The Coast Guard is therefore terminating further rulemaking under docket number CGD13–90–028.

FOR FURTHER INFORMATION CONTACT: LCDR J. Bigley or LTJG M. L. Kammerer, Thirteenth Coast Guard District, Port Safety and Security Branch, (206) 220–7210.

SUPPLEMENTARY INFORMATION: On May 22, 1990, the Coast Guard published a "Request for comments; notice of hearing" at 55 FR 21044 seeking public comment on six navigation safety initiatives for port areas in the Pacific Northwest. These six safety initiatives involved the use of tug escorts, emergency towing plans, speed criteria, additional bridge personnel, emergency tow-wire requirements for tank barges and requirements for extended pilotage. A public hearing was held on June 22, 1990, in Seattle, Washington, to hear comments on the six initiatives and alternative courses of action. The comments pertaining to emergency tow wire requirements for tank barges were addressed and incorporated in a notice of proposed rulemaking (NPRM) published on October 24, 1991 at 56 FR 55104.

[illegible] 1991 NPRM would have required all tank barges to carry an emergency tow wire while transiting certain port areas of the Pacific Northwest. This rule was proposed in response to the growing concerns of the citizens of Washington and Oregon that regulatory action was necessary to prevent the discharge of oil or other hazardous substances during transportation. The proposed rule was intended to enhance navigation safety, thereby reducing the risk of pollution and environmental damage from collisions and groundings.

Subsequent to publication of the October 24, 1991 NPRM, the Coast Guard issued regulations requiring that all offshore oil barges carry an emergency tow wire or tow line (December 22, 1993, 58 FR 67900). These separate regulations became effective on January 21, 1994, and are codified at 33 CFR 155.230. Because these separate regulations adequately addressed the same issue addressed by the proposed rule, the proposed rule has become unnecessary, and the Coast Guard is terminating further rulemaking under docket number CGD13–90–028.

Dated: May 16, 1995.

John A. Pierson,

Captain, U.S. Coast Guard, Commander Thirteenth Coast Guard District, Acting.

[FR Doc. 95–12735 Filed 5–23–95; 8:45 am]

BILLING CODE 4910–14–M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[KY–83–6927b; FRL–5184[illegible]–8]

Approval and Promulgation of Implementation Plans State: Kentucky Approval of Revisions to State Implementation Plan (SIP)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve a revision to the state implementation plan (SIP) submitted by the Commonwealth of Kentucky through the Natural Resources and Environmental Protection Cabinet (Cabinet). This revision will incorporate into the SIP an operating permit issued to the Calgon Carbon Corporation located in the Kentucky portion of the Ashland-Huntington ozone (O_3) nonattainment area. This permit will reduce the emissions of volatile organic compounds (VOCs) by requiring reasonably available control technology

13 June 1995

RECORD OF RAB PLANNING SESSION

A. AGENDA

- Welcome - Intros - Logistics
- Opening Exercise
- Brainstorm -

  What are the responsibilities of RAB members?
- Individual Brainstorm
- Evaluation of RAB meetings
- Future topics

B. QUESTIONS ASKED ON RAB MEMBERS

(1) What do I bring to the RAB meeting to benefit it?

(2) What do I want to take away from the RAB meeting?

(3) What do we want to accomplish at RAB meetings?

C. WHAT ARE THE RESPONSIBILITIES OF RAB MEMBERS?

The following ideas were generated by brainstorming:

- Inform the community of what is gone on
- Keep abreast of BRAC cleanup procedures
- Maintain a certain level of environmental knowledge
- Serve as communication link between Navy, EPA, DHEC, Community

- Review environmental cleanup efforts
- Bring community's needs and desires to RAB
- Provide fact versus rumors to the community
- Be more informed of day-to-day cleanup efforts
- Raise community's consciousness at earliest stages possible
- Push for more rapid cleanup
- Provide cleanup advice
- Need both sides of the environmental issues
  (Sometimes fed biased opinions)
- Have members report at meetings what they have done
- Make environmental issues relevant
- Attendance at meetings
- Educate others

<u>What works</u>

Open dialogue
Dissemination of information
Raising questions
Having a RAB
RAB's power

<u>What doesn't work</u>

Need focus for RAB
Need for real data
Getting input from community

<u>What we've learned</u>

RCRA process
RAB has power
Underestimate our influences

<u>Suggestions for improvement</u>

See another RAB
Establish RAB timeline
RAB member input on agendas
Sampling demo
Technical assistance
Increasing comfort level of
other RAB members
Make RAB feel important

K

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

Promoting Health, Protecting the Environment

William E. Applegate, III
John H. Burriss
Tony Graham, Jr., MD
John E. Pate, MD

CERTIFIED MAIL

September 22, 1993

Mr. Ron Dewitt, Director
Occupational Safety, Health, and
Environmental Office
Code 106
Charleston Naval Shipyard
Charleston, South Carolina 29408-6100

RE: Charleston Naval Shipyard (CNAV)
SC0 170 022 560
Charleston County

Request for Monitoring Well Installation Approval (Haverkost to Bowers, 5/6/93) and Facsimile Transmission (Haverkost to Bowers, 9/17/93)

Dear Mr. Dewitt:

The above referenced requests for monitoring well installation approval have been reviewed with respect to R.61-79.264 Subpart F of the South Carolina Hazardous Waste Management Regulations, the South Carolina Well Standards and Regulations (R.61-71), conditions of Hazardous Waste Permit SC0 170 022 560 and appropriate guidance documents. The referenced documents request approval from the Department to install a total of 42 monitoring wells to investigate the potential for groundwater contamination at Solid Waste Management Units (SWMUs) 1, 2, 6, 7, 8, 9, 20, 21, 22, and 25. This work is being completed under the RCRA Facility Investigation Workplan, which is currently under revision.

Several comments were generated during this review regarding monitoring well installation procedures. These issues were discussed during a telephone conversation with Mr. Todd Haverkost (consultant for CNAV) on September 21, 1993. These items are outlined below.

1. All of the proposed monitoring wells will have screen sections which straddle the water table. While this may be adequate initially for monitoring well installation, it is likely that installation of deeper monitoring wells will be necessary to determine the vertical extent of any groundwater contamination that is detected. Mr. Haverkost agreed with this comment.

recycled paper

2. The screen slot size for all of the proposed monitoring wells is 0.010". However, the screen slot size and filter pack grain size should be based on grain size analyses of the formation in which the screen is to be set. Mr. Haverkost agreed with this comment, and stated that the necessary equipment will be obtained to accomplish this. Further, I informed Mr. Haverkost that it may be appropriate at some point in the future, based on a sufficient number of grain size analyses from locations throughout the base, to eventually determine a uniform screen slot size and filter pack grain size.

3. The bentonite pellets installed in the monitoring well borehole above the filter pack should be allowed to hydrate in accordance with the manufacturer's specifications or eight (8) hours, whichever time period is greater.

4. Installation of flush-mounted wells should be avoided if possible. When it is impossible to install standard, above grade monitoring wells, and installation of flush-mounted monitoring wells is required, then specific justification must be submitted which explains the reason(s) it is necessary to install flush-mounted wells, and lists exactly which monitoring wells will be installed as flush-mounted.

5. The RFI Workplan notes that it may be necessary to install protective posts around some of the wells. The Workplan then states that these posts will be placed in the well pads. However, the protective posts should be placed outside the well pad to lessen the chance that the well pad will be damaged in the event of a collision with the posts.

6. If it becomes necessary to grout a section of the borehole annulus, the grout should be allowed to cure a minimum of 24 hours before further well construction activities are undertaken.

7. Mr. Haverkost and I discussed altering the locations of two of the proposed monitoring wells to be installed around SWMU 8. Figure 3-7 in the August 17, 1992 RFI Workplan depicts the originally proposed locations of these wells. I requested that a well be located on the northern side of Dyess Avenue, approximately 50 feet to the west of the word "Dyess" in this figure. Mr. Haverkost stated that it may be difficult to install a well at this location due to overhead power lines. He informed me that it may be possible to install a well at this location using a drill rig with a lower profile. I agreed with this approach and asked that I be kept informed regarding this effort. Also, I requested a monitoring well be located on the northern side of Dyess Avenue approximately half way between the two proposed soil sampling locations that are proposed on the southwestern side of the eastern Oil Sludge Pit. Mr. Haverkost stated that it should be possible to install a well at this location.

Mr. Haverkost understood and agreed with each of the above comments. Since installation of these monitoring wells is scheduled to begin this week, it was agreed that these comments would be taken into account during construction of all proposed monitoring wells.

A Monitoring Well Approval Form is attached to this correspondence. Please note the other conditions of approval included on this form. Should you have any questions regarding the attached well approval form, you may contact me at (803) 734-5484.

Respectfully,

Joe B Bowers

Joe B. Bowers, Hydrogeologist
Hazardous Waste Section
Division of Hydrogeology
Bureau of Solid and Hazardous Waste Management

cc: Christine Sanford-Coker, Trident District Office
David Walton, Hazardous Waste Permitting Section
Tim Mettlen, Ground Water Protection Division

Attachment

4590514.jbb

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

Promoting Health, Protecting the Environment

William S. Applegate, III,
John H. Barnes
Tony Graham, Jr., MD
John B. Pate, MD

Monitoring Well Installation Approval Form

Date of Issue: September 22, 1993 **Approval No.:** HW-93-0058

Approval is hereby granted to: Mr. Ron Dewitt
(on behalf of): Charleston Naval Shipyard

Permit or SCD #: SC0 170 022 560
County: Charleston

This approval is for the construction of monitoring wells designated CNSY-02-01, CNSY-02-02, CNSY-02-03, CNSY-02-04, CNSY-02-05, CNSY-02-06, CNSY-06-01, CNSY-06-02, CNSY-06-03, CNSY-06-04, CNSY-06-05, CNSY-06-06, CNSY-06-07, CNSY-08-01, CNSY-08-02, CNSY-08-03, CNSY-08-04, CNSY-08-05, CNSY-08-06, CNSY-09-01, CNSY-09-02, CNSY-09-03, CNSY-09-04, CNSY-09-05, CNSY-09-06, CNSY-09-07, CNSY-09-08, CNSY-09-09, CNSY-09-10, CNSY-09-11, CNSY-09-12, CNSY-09-13, CNSY-21-01, CNSY-21-02, CNSY-21-03, CNSY-25-01, CNSY-25-02, CNSY-25-03, CNSY-25-04, CNSY-25-05, WOC-1R and WOC-2R at the locations depicted in the respective figures included in the Draft Final RFI Workplan, dated August 17, 1992, the Facsimile transmission from Haverkost to Bowers, dated September 17, 1993, and as discussed in Bowers to Dewitt, dated September 22, 1993, in accordance with the construction plans and technical specifications included in the Draft Final RFI Workplan, dated August 17, 1992. The wells are to be constructed within the surficial aquifer for the intended purpose of monitoring groundwater quality and water levels. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and "as built" construction details for each well be submitted within thirty (30) days of completion of the last well.

2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well identification number, date of construction, static water level, and driller name and state certification number.

3. Well construction and sampling derived waste including, but not limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

recycled paper

4. Please provide groundwater quality analytical data, water level(s), and associated measurements (i.e., in-situ field measurements) to the Hazardous Waste Section within thirty (30) days of receipt from laboratory.

5. Monitoring wells shall be installed by a well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 4-5540 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by: Joe B Bowers

Joe B. Bowers, Hydrogeologist
Hazardous Waste Section
Division of Hydrogeology
Bureau of Solid and Hazardous
Waste Management

cnav.06

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
1351 FIRST STREET
CHARLESTON, S.C. 29408-2020

5090
Ser 106.2/0679
05 SEP 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and
Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of August, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R L Laney

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Report - August, 1995

Copy to:
SCDHEC (Bowers)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 August 95 TO 31 August 1995

I. INTRODUCTION

The following status report has been prepared to provide a monthly update on the progress of the RFI to members of the Naval Base Charleston (NAVBASE) BRAC Cleanup Team (BCT). The report is also intended to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 94 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

II. PORTION OF THE RFI COMPLETED

- Approval of the *Final Zone A and B RFI Work Plan* was granted by SCDHEC on 10 August 95.

- Approval of the *Final Zone E RFI Work Plan* was granted by SCDHEC on 9 August 95.

- Field work was initiated in Zone E on 21 August 95. The order in which sites will be investigated was based largely on reuse priority as determined by the Redevelopment Authority. A field activity schedule that will be updated bi-weekly was submitted to members of the BCT.

- Two observation wells were installed in Zones C and H in conjunction with the groundwater flow model being developed by the U.S. Geological Survey (USGS). USGS personnel also completed installation of continuous water level recording devices on both wells.

- RFI field work was essentially completed for Zones C and I. The work remaining consists of limited soil sampling for the engineering parameters to be used in the Corrective Measures Study and groundwater sampling using a Geoprobe at SWMU 47 to delineate the extent of groundwater contamination discussed below.

- The introductory sections of the draft version of the Zone C and I RFI reports were completed.

III. SUMMARIES OF FINDINGS

Attachment A is a summary of the findings to date for soil and groundwater in Zones C and I. All results are still **preliminary** and **unvalidated**.

One site of notable importance is the former burning dump, SWMU 47, located in Zone C. During the initial stage of field work, 15 shallow monitoring wells were installed as proposed in the RFI work plan. Benzene, trichloroethene, and 1,1 dichloroethene were all detected in well NBCC-047-003 at levels exceeding their respective MCLs. The extent of the contamination has yet to be completely defined.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the August 1995 meeting and the minutes of the July 1995 meeting are provided as Attachment B. The minutes of the August 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

Scheduling problems are due to a lack of funding for the third quarter sampling event for the Zone H monitoring wells and preparation of the RFI work plan for Zones D, F, G, and K. As of 31 August 95, no funding was available to task the contractor to begin work. Incremental funding is being evaluated as a mechanism to resolve the issue and contract award should occur in early September 1995.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. During the month of August 1995 two changes

in the Navy personnel list were noted. Brian Stockmaster was named as Thuane Fielding's replacement as one of the Remedial Project Managers assigned to the project by Southern Division, Naval Facilities Engineering Command. Earle Folger was replaced as the Charleston Naval Shipyard Environmental Division RFI Coordinator by Hugh Odom and David Frasier.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Validation of the Zone C and I analytical data will continue along with preparation of the draft RFI reports.
- Preparation of the draft work plan for Zones D, F, G, and K will begin if funding becomes available.

Field Activities:

- Field work will begin in Zones A and B in mid-September. Among the first activities scheduled are the redevelopment and sampling of the existing monitoring wells at SWMUs 1 and 2.
- Groundwater screening will be performed at SWMU 47 in an effort to expeditiously and cost effectively delineate the extent of volatile organic groundwater contamination. The screening method proposed is a direct push technology with a field gas chromatograph to produce real time data.
- Field work will continue is accordance with the project schedule in Zone E.
- A limited number of soil samples will be collected from "hot spots" in Zones C and I for engineering parameter analysis.
- If funding becomes available, the Zone H quarterly groundwater sampling will continue.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and USEPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Table
Chemicals Detected at Site 044
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	1 / 1	500.000	500.00 - 500.00	88.00	1		
* Nickel	MG/KG	2 / 9	2180.000	1120.00 - 3240.00	160.00	2	33.38	2
1-Methyl napthalene		1 / 1	110.000	110.00 - 110.00				
1234678-HpCDD	PG/G	1 / 1	138.580	138.58 - 138.58	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	20.089	20.08 - 20.08	430.00[c]			
123478-HxCDF	PG/G	1 / 1	4.500	4.50 - 4.50	43.00[c]			
1234789-HpCDF	PG/G	1 / 1	1.030	1.03 - 1.03	43.00[c]			
123789-HxCDD	PG/G	1 / 1	2.894	2.89 - 2.89	43.00[c]			
2-Methylnaphthalene	UG/KG	1 / 1	91.000	91.00 - 91.00	310000.00[i]			
234678-HxCDF	PG/G	1 / 1	0.857	0.85 - 0.85	43.00[c]			
Acenaphthylene	UG/KG	1 / 1	75.000	75.00 - 75.00	470000.00[e]			
Aluminum	MG/KG	7 / 9	6937.142	1240.00 - 17500.00	7900.00	2	25310.00	
Anthracene	UG/KG	1 / 1	63.000	63.00 - 63.00	2300000.00			
Arsenic	MG/KG	2 / 9	10.100	7.60 - 12.60	0.37	2	14.81	
Barium	MG/KG	5 / 9	38.820	26.10 - 55.40	550.00		40.33	2
Benzo(a)anthracene	UG/KG	1 / 1	460.000	460.00 - 460.00	880.00			
Cadmium	MG/KG	1 / 9	3.600	3.60 - 3.60	3.90		1.05	1
Chrysene	UG/KG	1 / 1	530.000	530.00 - 530.00	88000.00			
Cobalt	MG/KG	1 / 9	6.400	6.40 - 6.40	470.00		5.86	1
Copper	MG/KG	2 / 9	120.350	33.70 - 207.00	290.00		27.60	2
Dibenzofuran	UG/KG	1 / 1	43.000	43.00 - 43.00	31000.00			
Fluoranthene	UG/KG	1 / 1	660.000	660.00 - 660.00	310000.00			
Heptachlor epoxide	UG/KG	1 / 1	1.200	1.20 - 1.20	70.00			
Iron	MG/KG	2 / 9	4135.000	4070.00 - 4200.00			30910.00	
Magnesium	MG/KG	7 / 9	1077.000	556.00 - 2090.00			9592.00	
Manganese	MG/KG	2 / 9	54.200	52.40 - 56.00	39.00	2	636.40	
Mercury	MG/KG	2 / 9	0.185	0.12 - 0.25	2.30		0.49	
Naphthalene	UG/KG	1 / 1	97.000	97.00 - 97.00	310000.00			
Nickel	MG/KG	7 / 9	15.142	4.40 - 43.40	160.00		33.38	1
OCDD	PG/G	1 / 1	1288.568	1288.56 - 1288.56	4300.00[c]			
OCDF	PG/G	1 / 1	50.816	50.81 - 50.81	4300.00[c]			
Phenanthrene	UG/KG	1 / 1	210.000	210.00 - 210.00	310000.00[k]			
Potassium	MG/KG	3 / 9	3332.000	672.00 - 8610.00				
Pyrene	UG/KG	1 / 1	510.000	510.00 - 510.00	230000.00			
Vanadium	MG/KG	8 / 9	16.000	6.30 - 42.00	55.00		77.38	

Table
Chemicals Detected at Site 044
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Zinc	MG/KG	7 / 9	62.700	6.40 - 141.00	2300.00		214.30	

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- e Acenaphthene used as surrogate
- i Naphthalene used as surrogate
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 044
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Aluminum	MG/KG	1 / 1	28900.000	28900.00 - 28900.00	7900.00	1	46180.00	
Barium	MG/KG	1 / 1	37.400	37.40 - 37.40	550.00		43.80	
Cadmium	MG/KG	1 / 1	1.200	1.20 - 1.20	3.90		1.10	1
Magnesium	MG/KG	1 / 1	4170.000	4170.00 - 4170.00			9179.00	
Nickel	MG/KG	1 / 1	13.600	13.60 - 13.60	160.00		29.90	
Potassium	MG/KG	1 / 1	2660.000	2660.00 - 2660.00				
Vanadium	MG/KG	1 / 1	71.700	71.70 - 71.70	55.00	1	131.60	
Zinc	MG/KG	1 / 1	132.000	132.00 - 132.00	2300.00		129.60	1

Table
Chemicals Detected at Site 047
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Arsenic	MG/KG	2 / 9	15.550	3.30 - 27.80	0.37	2	14.81	1
* Benzo(a)pyrene	UG/KG	6 / 11	992.277	108.66 - 4600.00	88.00	6		
* Copper	MG/KG	7 / 9	82.528	3.60 - 416.00	290.00	1	27.60	2
* Dibenzo(a,h)anthracene	UG/KG	1 / 11	1000.000	1000.00 - 1000.00	88.00	1		
* Dieldrin	UG/KG	1 / 6	58.500	58.50 - 58.50	40.00	1		
* Indeno(1,2,3-cd)pyrene	UG/KG	5 / 11	794.000	110.00 - 3200.00	880.00	1		
* Lead	MG/KG	10 / 12	97.855	5.30 - 561.65	400.00[j]	1	118.00	3
* N-Nitroso-di-n-propylami	UG/KG	1 / 11	1800.000	1800.00 - 1800.00	91.00	1		
* Nickel	MG/KG	3 / 7	831.000	610.00 - 1000.00	160.00	3	33.38	3
* Thallium	MG/KG	1 / 12	2.100	2.10 - 2.10	0.63	1	0.63	1
1,1-Dichloroethene	UG/KG	1 / 11	56.500	56.50 - 56.50	1100.00			
1,2,4-Trichlorobenzene	UG/KG	1 / 11	2050.000	2050.00 - 2050.00	78000.00			
1,4-Dichlorobenzene	UG/KG	1 / 11	2000.000	2000.00 - 2000.00	27000.00			
1-Methyl napthalene		1 / 11	130.000	130.00 - 130.00				
1234678-HpCDD	PG/G	2 / 2	13.313	4.89 - 21.72	430.00[c]			
1234678-HpCDF	PG/G	2 / 2	100.862	89.40 - 112.32	430.00[c]			
123478-HxCDF	PG/G	2 / 2	10.113	8.81 - 11.41	43.00[c]			
123678-HxCDF	PG/G	1 / 2	2.493	2.49 - 2.49	43.00[c]			
123789-HxCDD	PG/G	1 / 2	0.727	0.72 - 0.72	43.00[c]			
123789-HxCDF	PG/G	1 / 2	0.710	0.71 - 0.71	43.00[c]			
2,4-Dinitrotoluene	UG/KG	1 / 11	1850.000	1850.00 - 1850.00	16000.00			
2-Chlorophenol	UG/KG	1 / 11	3850.000	3850.00 - 3850.00	39000.00			
2-Methylnaphthalene	UG/KG	1 / 11	100.000	100.00 - 100.00	310000.00[i]			
234678-HxCDF	PG/G	2 / 2	1.199	0.71 - 1.68	43.00[c]			
4,4'-DDD	UG/KG	1 / 6	1.550	1.55 - 1.55	2700.00			
4,4'-DDE	UG/KG	3 / 7	31.491	0.47 - 67.00	1900.00			
4,4'-DDT	UG/KG	4 / 6	33.187	0.25 - 75.50	1900.00			
4-Chloro-3-methylphenol	UG/KG	1 / 11	4350.000	4350.00 - 4350.00				
4-Nitrophenol	UG/KG	1 / 11	4350.000	4350.00 - 4350.00	480000.00			
Acenaphthene	UG/KG	3 / 11	728.333	45.00 - 1800.00	470000.00			
Acetone	UG/KG	1 / 3	47.000	47.00 - 47.00	780000.00			
Aldrin	UG/KG	2 / 6	11.900	0.80 - 23.00	38.00			
Aluminum	MG/KG	12 / 12	6452.500	3450.00 - 13900.00	7900.00	2	25310.00	
Anthracene	UG/KG	4 / 11	317.750	35.00 - 1100.00	2300000.00			
Barium	MG/KG	4 / 7	68.875	29.50 - 170.00	550.00		40.33	2

Table
Chemicals Detected at Site 047
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Benzene	UG/KG	1 / 11	76.500	76.50 - 76.50	22000.00			
Benzo(a)anthracene	UG/KG	6 / 10	239.555	74.00 - 500.00	880.00			
Benzo(b)fluoranthene	UG/KG	2 / 8	450.000	450.00 - 450.00	880.00			
Benzo(g,h,i)perylene	UG/KG	5 / 11	765.000	100.00 - 3000.00	310000.00[f]			
Benzo(k)fluoranthene	UG/KG	2 / 8	535.000	530.00 - 540.00	8800.00			
Cadmium	MG/KG	1 / 10	2.900	2.90 - 2.90	3.90		1.05	1
Calcium	MG/KG	3 / 6	25200.000	12700.00 - 47000.00				
Chlorobenzene	UG/KG	1 / 11	65.000	65.00 - 65.00	160000.00			
Chromium	MG/KG	6 / 6	16.916	4.80 - 44.60	39.00	1	85.65	
Chrysene	UG/KG	6 / 10	287.000	72.00 - 500.00	88000.00			
Cobalt	MG/KG	2 / 7	8.950	8.20 - 9.70	470.00		5.86	2
Di-n-butylphthalate	UG/KG	1 / 11	86.000	86.00 - 86.00	780000.00			
Dibenzo(a,j)acridine		1 / 11	190.000	190.00 - 190.00				
Dibenzofuran	UG/KG	1 / 11	380.000	380.00 - 380.00	31000.00			
Diethylphthalate	UG/KG	1 / 11	150.000	150.00 - 150.00	6300000.00			
Endosulfan I	UG/KG	2 / 6	0.602	0.36 - 0.84	47000.00			
Endosulfan II	UG/KG	5 / 8	1.374	0.14 - 3.60	47000.00			
Endosulfan sulfate	UG/KG	3 / 6	0.766	0.24 - 1.10	47000.00[g]			
Endrin	UG/KG	2 / 8	32.975	0.95 - 65.00	2300.00			
Endrin aldehyde	UG/KG	1 / 6	0.650	0.65 - 0.65	2300.00[h]			
Fluoranthene	UG/KG	6 / 10	427.500	120.00 - 900.00	310000.00			
Fluorene	UG/KG	2 / 11	354.000	58.00 - 650.00	310000.00			
Heptachlor	UG/KG	1 / 4	17.633	17.63 - 17.63	140.00			
Heptachlor epoxide	UG/KG	1 / 7	0.192	0.19 - 0.19	70.00			
Iron	MG/KG	12 / 12	6724.916	924.00 - 32730.00			30910.00	1
Magnesium	MG/KG	4 / 8	2110.250	911.00 - 3650.00			9592.00	
Manganese	MG/KG	10 / 12	40.645	5.30 - 183.65	39.00	4	636.40	
Mercury	MG/KG	4 / 12	0.670	0.13 - 2.20	2.30		0.49	1
Methoxychlor	UG/KG	2 / 3	8.150	7.10 - 9.20	39000.00			
Naphthalene	UG/KG	1 / 11	430.000	430.00 - 430.00	310000.00			
Nickel	MG/KG	4 / 8	15.450	8.90 - 26.50	160.00		33.38	
OCDD	PG/G	2 / 2	163.165	79.68 - 246.65	4300.00[c]			
OCDF	PG/G	2 / 2	256.903	222.08 - 291.72	4300.00[c]			
Pentachlorophenol	UG/KG	1 / 11	1300.000	1300.00 - 1300.00	5300.00			
Petroleum Hydrocarbons,		13 / 13	357.076	27.10 - 2050.00				

Table
Chemicals Detected at Site 047
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Phenanthrene	UG/KG	6 / 10	204.555	37.00 - 520.00	310000.00[k]			
Phenol	UG/KG	2 / 11	2009.000	68.00 - 3950.00	4700000.00			
Potassium	MG/KG	1 / 6	1010.000	1010.00 - 1010.00				
Pyrene	UG/KG	6 / 10	634.444	110.00 - 1766.66	230000.00			
Tin	MG/KG	2 / 10	35.350	24.00 - 46.70	4700.00			
Toluene	UG/KG	1 / 11	67.500	67.50 - 67.50	1600000.00			
Trichloroethene	UG/KG	1 / 11	72.000	72.00 - 72.00	47000.00			
Vanadium	MG/KG	7 / 9	19.664	8.20 - 44.10	55.00		77.38	
Zinc	MG/KG	4 / 6	329.150	29.30 - 1100.00	2300.00		214.30	1
alpha-BHC	UG/KG	1 / 10	0.350	0.35 - 0.35	100.00			
beta-BHC	UG/KG	1 / 8	1.700	1.70 - 1.70	350.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 11	420.000	420.00 - 420.00	46000.00			
delta-BHC	UG/KG	1 / 8	2.650	2.65 - 2.65	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 8	26.500	26.50 - 26.50	490.00			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- f Fluoranthene used as surrogate
- g Endosulfan used as surrogate
- h Endrin used as surrogate
- i Naphthalene used as surrogate
- j Based on proposed action level for soil and treatment technique action level for water
- k Fluoranthene used as surrogate
- l gamma-BHC (Lindane) used as surrogate

Table
Chemicals Detected at Site 047
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)anthracene	UG/KG	3 / 10	900.000	250.00 - 1600.00	880.00	1		
* Benzo(a)pyrene	UG/KG	3 / 10	1046.666	240.00 - 1700.00	88.00	3		
* Copper	MG/KG	6 / 8	354.883	8.10 - 1650.00	290.00	2	31.62	3
* Dibenzo(a,h)anthracene	UG/KG	2 / 10	450.000	180.00 - 720.00	88.00	2		
* Lead	MG/KG	8 / 9	125.962	2.40 - 596.50	400.00[j]	1	68.69	2
* Mercury	MG/KG	3 / 9	3.113	0.52 - 8.20	2.30	1	0.74	1
* Nickel	MG/KG	1 / 4	1020.000	1020.00 - 1020.00	160.00	1	29.90	1
* Thallium	MG/KG	1 / 9	1.800	1.80 - 1.80	0.63	1	1.30	1
1-Methyl napthalene		1 / 10	140.000	140.00 - 140.00				
2-Methylnaphthalene	UG/KG	1 / 10	230.000	230.00 - 230.00	310000.00[i]			
4,4'-DDT	UG/KG	2 / 5	0.600	0.56 - 0.64	1900.00			
Acenaphthene	UG/KG	2 / 10	370.000	310.00 - 430.00	470000.00			
Acetone	UG/KG	1 / 2	24.000	24.00 - 24.00	780000.00			
Aldrin	UG/KG	1 / 8	0.300	0.30 - 0.30	38.00			
Aluminum	MG/KG	9 / 9	7467.777	1030.00 - 22300.00	7900.00	4	46180.00	
Anthracene	UG/KG	2 / 10	475.500	71.00 - 880.00	2300000.00			
Arsenic	MG/KG	2 / 5	6.300	3.00 - 9.60	0.37	2	35.52	
Barium	MG/KG	5 / 7	94.920	25.90 - 273.00	550.00		43.80	2
Benzo(g,h,i)perylene	UG/KG	3 / 10	440.000	150.00 - 600.00	310000.00[f]			
Beryllium	MG/KG	1 / 4	1.100	1.10 - 1.10	0.15	1	1.62	
Cadmium	MG/KG	1 / 7	2.800	2.80 - 2.80	3.90		1.10	1
Calcium	MG/KG	3 / 4	14173.333	1120.00 - 35500.00				
Chromium	MG/KG	3 / 4	13.266	5.20 - 21.70	39.00		83.86	
Chrysene	UG/KG	3 / 10	960.000	380.00 - 1300.00	88000.00			
Di-n-butylphthalate	UG/KG	2 / 10	112.000	94.00 - 130.00	780000.00			
Dibenzofuran	UG/KG	2 / 10	134.500	69.00 - 200.00	31000.00			
Endrin aldehyde	UG/KG	1 / 8	1.400	1.40 - 1.40	2300.00[h]			
Fluoranthene	UG/KG	3 / 10	1263.333	390.00 - 2800.00	310000.00			
Fluorene	UG/KG	2 / 10	440.000	320.00 - 560.00	310000.00			
Heptachlor	UG/KG	1 / 8	0.120	0.12 - 0.12	140.00			
Heptachlor epoxide	UG/KG	1 / 8	1.100	1.10 - 1.10	70.00			
Indeno(1,2,3-cd)pyrene	UG/KG	3 / 10	406.666	140.00 - 630.00	880.00			
Iron	MG/KG	9 / 9	8842.000	678.00 - 28400.00			66170.00	
Magnesium	MG/KG	4 / 6	2700.000	1090.00 - 4630.00			9179.00	
Manganese	MG/KG	8 / 9	74.150	8.90 - 276.00	39.00	3	1412.00	

Table
Chemicals Detected at Site 047
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Methoxychlor	UG/KG	1 / 5	2.500	2.50 - 2.50	39000.00			
Naphthalene	UG/KG	1 / 10	150.000	150.00 - 150.00	310000.00			
Nickel	MG/KG	4 / 6	24.425	11.20 - 60.70	160.00		29.90	1
Petroleum Hydrocarbons,		9 / 9	81.377	25.80 - 266.00				
Phenanthrene	UG/KG	3 / 10	1426.666	320.00 - 3300.00	310000.00[k]			
Potassium	MG/KG	2 / 5	1519.000	918.00 - 2120.00				
Pyrene	UG/KG	4 / 10	697.000	48.00 - 1900.00	230000.00			
Tin	MG/KG	2 / 6	210.850	56.70 - 365.00	4700.00			
Vanadium	MG/KG	5 / 7	39.140	17.20 - 78.80	55.00	2	131.60	
Zinc	MG/KG	3 / 4	489.166	2.50 - 1320.00	2300.00		129.60	2
alpha-BHC	UG/KG	1 / 10	0.030	0.03 - 0.03	100.00			

Table
Chemicals Detected at Site 508
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 4,4'-DDT	UG/KG	4 / 5	776.500	56.00 - 2700.00	1900.00	1		
* Benzo(a)anthracene	UG/KG	3 / 5	341.000	41.00 - 910.00	880.00	1		
* Benzo(a)pyrene	UG/KG	3 / 5	411.333	45.00 - 1100.00	88.00	2		
* Dibenzo(a,h)anthracene	UG/KG	1 / 5	120.000	120.00 - 120.00	88.00	1		
1234678-HpCDD	PG/G	1 / 1	68.565	68.56 - 68.56	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	37.208	37.20 - 37.20	430.00[c]			
123478-HxCDF	PG/G	1 / 1	5.446	5.44 - 5.44	43.00[c]			
234678-HxCDF	PG/G	1 / 1	1.065	1.06 - 1.06	43.00[c]			
4,4'-DDD	UG/KG	1 / 4	23.000	23.00 - 23.00	2700.00			
4,4'-DDE	UG/KG	4 / 4	438.250	73.00 - 1200.00	1900.00			
Acenaphthylene	UG/KG	1 / 5	110.000	110.00 - 110.00	470000.00[e]			
Acetone	UG/KG	1 / 4	39.000	39.00 - 39.00	780000.00			
Aluminum	MG/KG	5 / 8	4684.000	3830.00 - 5150.00	7900.00		25310.00	
Arsenic	MG/KG	7 / 8	2.214	1.20 - 3.70	0.37	7	14.81	
Barium	MG/KG	4 / 8	42.425	22.90 - 74.30	550.00		40.33	1
Benzo(g,h,i)perylene	UG/KG	2 / 5	255.500	41.00 - 470.00	310000.00[f]			
Cadmium	MG/KG	1 / 8	0.600	0.60 - 0.60	3.90		1.05	
Calcium	MG/KG	5 / 8	1869.800	639.00 - 3380.00				
Chlordane	UG/KG	1 / 5	140.000	140.00 - 140.00	470.00			
Chromium	MG/KG	5 / 8	7.180	4.20 - 11.90	39.00		85.65	
Chrysene	UG/KG	4 / 5	259.750	39.00 - 880.00	88000.00			
Copper	MG/KG	8 / 8	12.887	3.60 - 22.40	290.00		27.60	
Endosulfan II	UG/KG	2 / 5	13.000	11.00 - 15.00	47000.00			
Endrin	UG/KG	1 / 3	22.000	22.00 - 22.00	2300.00			
Fluoranthene	UG/KG	4 / 5	290.500	36.00 - 940.00	310000.00			
Indeno(1,2,3-cd)pyrene	UG/KG	2 / 5	243.500	37.00 - 450.00	880.00			
Iron	MG/KG	8 / 8	3448.750	1460.00 - 11700.00			30910.00	
Lead	MG/KG	5 / 8	136.080	13.80 - 327.00	400.00[j]		118.00	3
Manganese	MG/KG	8 / 8	31.675	8.20 - 63.50	39.00	2	636.40	
Mercury	MG/KG	4 / 8	0.192	0.10 - 0.32	2.30		0.49	
OCDD	PG/G	1 / 1	511.864	511.86 - 511.86	4300.00[c]			
OCDF	PG/G	1 / 1	59.578	59.57 - 59.57	4300.00[c]			
Petroleum Hydrocarbons,		6 / 6	198.316	16.50 - 497.00				
Phenanthrene	UG/KG	1 / 5	140.000	140.00 - 140.00	310000.00[k]			
Pyrene	UG/KG	4 / 5	381.750	39.00 - 1300.00	230000.00			

Table
Chemicals Detected at Site 508
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Toluene	UG/KG	2 / 5	4.500	1.00 - 8.00	1600000.00			
Vanadium	MG/KG	6 / 8	6.933	5.50 - 10.60	55.00		77.38	
alpha-BHC	UG/KG	1 / 5	0.140	0.14 - 0.14	100.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 5	72.000	72.00 - 72.00	46000.00			
delta-BHC	UG/KG	1 / 3	9.400	9.40 - 9.40	490.00[l]			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- e Acenaphthene used as surrogate
- f Fluoranthene used as surrogate
- j Based on proposed action level for soil and treatment technique action level for water
- k Fluoranthene used as surrogate
- l gamma-BHC (Lindane) used as surrogate

Table
Chemicals Detected at Site 508
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Aluminum	MG/KG	1 / 1	925.000	925.00 - 925.00	7900.00		46180.00	
Chromium	MG/KG	1 / 1	1.400	1.40 - 1.40	39.00		83.86	
Iron	MG/KG	1 / 1	532.000	532.00 - 532.00			66170.00	
Lead	MG/KG	1 / 1	1.900	1.90 - 1.90	400.00[j]		68.69	
Manganese	MG/KG	1 / 1	4.200	4.20 - 4.20	39.00		1412.00	
Petroleum Hydrocarbons,		1 / 1	36.400	36.40 - 36.40				

Table
Chemicals Detected at Site 510
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	2 / 5	310.000	190.00 - 430.00	88.00	2		
* Dieldrin	UG/KG	1 / 3	59.000	59.00 - 59.00	40.00	1		
4,4'-DDD	UG/KG	1 / 4	4.800	4.80 - 4.80	2700.00			
4,4'-DDE	UG/KG	2 / 5	84.500	59.00 - 110.00	1900.00			
4,4'-DDT	UG/KG	1 / 2	65.000	65.00 - 65.00	1900.00			
Acenaphthene	UG/KG	1 / 5	56.000	56.00 - 56.00	470000.00			
Aluminum	MG/KG	3 / 5	4980.000	4070.00 - 6570.00	7900.00		25310.00	
Anthracene	UG/KG	1 / 5	91.000	91.00 - 91.00	2300000.00			
Arsenic	MG/KG	2 / 5	1.850	1.70 - 2.00	0.37	2	14.81	
Barium	MG/KG	3 / 5	26.866	23.30 - 32.10	550.00		40.33	
Benzo(a)anthracene	UG/KG	3 / 5	196.666	60.00 - 370.00	880.00			
Benzo(g,h,i)perylene	UG/KG	2 / 5	120.000	90.00 - 150.00	310000.00[f]			
Calcium	MG/KG	2 / 5	997.500	725.00 - 1270.00				
Chloroform	UG/KG	1 / 5	2.000	2.00 - 2.00	78000.00			
Chromium	MG/KG	3 / 5	6.500	6.00 - 7.30	39.00		85.65	
Chrysene	UG/KG	3 / 5	220.000	50.00 - 370.00	88000.00			
Endosulfan sulfate	UG/KG	1 / 3	0.380	0.38 - 0.38	47000.00[g]			
Endrin	UG/KG	1 / 2	67.000	67.00 - 67.00	2300.00			
Endrin aldehyde	UG/KG	1 / 5	0.490	0.49 - 0.49	2300.00[h]			
Fluoranthene	UG/KG	3 / 5	460.000	110.00 - 990.00	310000.00			
Heptachlor	UG/KG	1 / 2	26.000	26.00 - 26.00	140.00			
Heptachlor epoxide	UG/KG	1 / 3	0.190	0.19 - 0.19	70.00			
Indeno(1,2,3-cd)pyrene	UG/KG	2 / 5	119.500	89.00 - 150.00	880.00			
Iron	MG/KG	5 / 5	3358.000	1840.00 - 4610.00			30910.00	
Manganese	MG/KG	3 / 5	49.766	44.20 - 56.10	39.00	3	636.40	
Methoxychlor	UG/KG	1 / 5	5.900	5.90 - 5.90	39000.00			
Phenanthrene	UG/KG	2 / 5	364.500	59.00 - 670.00	310000.00[k]			
Pyrene	UG/KG	3 / 5	288.000	94.00 - 600.00	230000.00			
Toluene	UG/KG	3 / 5	4.666	3.00 - 7.00	1600000.00			
Vanadium	MG/KG	4 / 5	8.100	6.60 - 9.30	55.00		77.38	
Zinc	MG/KG	5 / 5	48.900	5.70 - 71.70	2300.00		214.30	
beta-BHC	UG/KG	1 / 5	0.530	0.53 - 0.53	350.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 5	120.000	120.00 - 120.00	46000.00			
delta-BHC	UG/KG	1 / 5	0.180	0.18 - 0.18	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 5	25.000	25.00 - 25.00	490.00			

Table
Chemicals Detected at Site 510
Soil, Sampling Interval I

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- f Fluoranthene used as surrogate
- g Endosulfan used as surrogate
- h Endrin used as surrogate
- k Fluoranthene used as surrogate
- l gamma-BHC (Lindane) used as surrogate

Table
Chemicals Detected at Site 510
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	1 / 1	9.997	9.99 - 9.99	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	6.233	6.23 - 6.23	430.00[c]			
4,4'-DDE	UG/KG	1 / 3	4.000	4.00 - 4.00	1900.00			
Acetone	UG/KG	1 / 2	11.000	11.00 - 11.00	780000.00			
Aluminum	MG/KG	2 / 4	2900.000	1300.00 - 4500.00	7900.00		46180.00	
Chromium	MG/KG	2 / 4	2.550	1.10 - 4.00	39.00		83.86	
Iron	MG/KG	4 / 4	1985.000	1170.00 - 3320.00			66170.00	
Manganese	MG/KG	2 / 4	14.500	8.10 - 20.90	39.00		1412.00	
OCDD	PG/G	1 / 1	67.554	67.55 - 67.55	4300.00[c]			
OCDF	PG/G	1 / 1	12.600	12.60 - 12.60	4300.00[c]			
Vanadium	MG/KG	1 / 4	6.300	6.30 - 6.30	55.00		131.60	
Zinc	MG/KG	4 / 4	4.875	3.20 - 9.10	2300.00		129.60	

Table
Chemicals Detected at Site 511
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Lead	MG/KG	6 / 10	197.516	29.40 - 670.00	400.00[j]	1	118.00	3
1-Methyl napthalene		1 / 6	100.000	100.00 - 100.00				
1234678-HpCDD	PG/G	1 / 1	3.175	3.17 - 3.17	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	1.734	1.73 - 1.73	430.00[c]			
2-Methylnaphthalene	UG/KG	1 / 6	120.000	120.00 - 120.00	310000.00[i]			
4,4'-DDD	UG/KG	1 / 4	16.000	16.00 - 16.00	2700.00			
4,4'-DDE	UG/KG	4 / 5	102.250	21.00 - 170.00	1900.00			
4,4'-DDT	UG/KG	5 / 5	91.800	18.00 - 240.00	1900.00			
Aluminum	MG/KG	6 / 10	3710.000	3240.00 - 4330.00	7900.00		25310.00	
Arsenic	MG/KG	6 / 10	1.966	1.10 - 4.10	0.37	6	14.81	
Barium	MG/KG	6 / 10	49.200	21.50 - 122.00	550.00		40.33	3
Benzo(a)anthracene	UG/KG	3 / 6	58.000	49.00 - 75.00	880.00			
Benzo(a)pyrene	UG/KG	3 / 6	56.333	48.00 - 69.00	88.00			
Benzo(b)fluoranthene	UG/KG	1 / 6	85.000	85.00 - 85.00	880.00			
Benzo(k)fluoranthene	UG/KG	1 / 6	38.000	38.00 - 38.00	8800.00			
Cadmium	MG/KG	1 / 10	0.570	0.57 - 0.57	3.90		1.05	
Calcium	MG/KG	3 / 10	801.333	758.00 - 881.00				
Chlordane	UG/KG	2 / 6	23.500	12.00 - 35.00	470.00			
Chromium	MG/KG	6 / 10	5.716	3.60 - 8.80	39.00		85.65	
Chrysene	UG/KG	4 / 6	71.250	43.00 - 100.00	88000.00			
Copper	MG/KG	10 / 10	17.230	2.80 - 70.70	290.00		27.60	3
Fluoranthene	UG/KG	4 / 6	77.250	37.00 - 150.00	310000.00			
Heptachlor epoxide	UG/KG	2 / 5	7.650	3.30 - 12.00	70.00			
Iron	MG/KG	10 / 10	2740.000	1900.00 - 3710.00			30910.00	
Manganese	MG/KG	8 / 10	28.712	13.80 - 41.10	39.00	2	636.40	
Mercury	MG/KG	6 / 10	0.251	0.11 - 0.40	2.30		0.49	
Naphthalene	UG/KG	1 / 6	84.000	84.00 - 84.00	310000.00			
OCDD	PG/G	1 / 1	22.320	22.32 - 22.32	4300.00[c]			
OCDF	PG/G	1 / 1	4.112	4.11 - 4.11	4300.00[c]			
Petroleum Hydrocarbons,		6 / 6	221.000	36.30 - 746.00				
Phenanthrene	UG/KG	3 / 6	59.333	41.00 - 77.00	310000.00[k]			
Pyrene	UG/KG	3 / 6	61.333	48.00 - 87.00	230000.00			
Safrole	UG/KG	1 / 6	200.000	200.00 - 200.00				
Toluene	UG/KG	2 / 6	3.000	2.00 - 4.00	1600000.00			
Vanadium	MG/KG	8 / 10	7.512	5.50 - 10.90	55.00		77.38	

Table
Chemicals Detected at Site 511
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Zinc	MG/KG	2 / 10	22.100	22.10 - 22.10	2300.00		214.30	
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 6	110.000	110.00 - 110.00	46000.00			
gamma-BHC (Lindane)	UG/KG	1 / 5	2.600	2.60 - 2.60	490.00			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- i Naphthalene used as surrogate
- j Based on proposed action level for soil and treatment technique action level for water
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 511
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDE	UG/KG	2 / 3	4.800	4.60 - 5.00	1900.00			
4,4'-DDT	UG/KG	3 / 4	5.300	2.80 - 7.50	1900.00			
Aldrin	UG/KG	1 / 4	0.160	0.16 - 0.16	38.00			
Aluminum	MG/KG	4 / 4	3362.500	960.00 - 4730.00	7900.00		46180.00	
Chromium	MG/KG	4 / 4	4.425	1.40 - 6.20	39.00		83.86	
Iron	MG/KG	4 / 4	1764.250	577.00 - 2450.00			66170.00	
Lead	MG/KG	4 / 4	11.825	1.40 - 25.40	400.00[j]		68.69	
Manganese	MG/KG	3 / 4	8.333	6.80 - 10.60	39.00		1412.00	
Petroleum Hydrocarbons,		5 / 5	28.220	21.40 - 37.20				
Vanadium	MG/KG	1 / 4	5.600	5.60 - 5.60	55.00		131.60	

Table
Chemicals Detected at Site 512
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	4 / 5	83.250	60.00 - 110.00	88.00	2		
1234678-HpCDD	PG/G	1 / 1	22.131	22.13 - 22.13	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	9.490	9.49 - 9.49	430.00[c]			
123478-HxCDF	PG/G	1 / 1	3.134	3.13 - 3.13	43.00[c]			
123678-HxCDF	PG/G	1 / 1	1.127	1.12 - 1.12	43.00[c]			
234678-HxCDF	PG/G	1 / 1	1.238	1.23 - 1.23	43.00[c]			
4,4'-DDE	UG/KG	3 / 4	9.366	8.20 - 11.00	1900.00			
Aldrin	UG/KG	1 / 2	1.100	1.10 - 1.10	38.00			
Aluminum	MG/KG	5 / 5	7480.000	5510.00 - 10600.00	7900.00	2	25310.00	
Aroclor-1254	UG/KG	1 / 5	60.000	60.00 - 60.00	83.00			
Arsenic	MG/KG	5 / 5	5.640	3.30 - 8.20	0.37	5	14.81	
Barium	MG/KG	2 / 5	32.900	25.10 - 40.70	550.00		40.33	1
Benzo(a)anthracene	UG/KG	5 / 5	75.800	45.00 - 110.00	880.00			
Cadmium	MG/KG	2 / 5	0.705	0.64 - 0.77	3.90		1.05	
Chlordane	UG/KG	3 / 4	3.000	1.70 - 4.20	470.00			
Chromium	MG/KG	5 / 5	14.480	9.30 - 21.70	39.00		85.65	
Chrysene	UG/KG	5 / 5	83.600	58.00 - 120.00	88000.00			
Endosulfan I	UG/KG	1 / 4	2.400	2.40 - 2.40	47000.00			
Endosulfan sulfate	UG/KG	1 / 3	1.400	1.40 - 1.40	47000.00[g]			
Fluoranthene	UG/KG	5 / 5	141.200	76.00 - 200.00	310000.00			
Iron	MG/KG	5 / 5	9254.000	6180.00 - 11800.00			30910.00	
Magnesium	MG/KG	5 / 5	1841.400	837.00 - 2530.00			9592.00	
Manganese	MG/KG	5 / 5	199.020	90.10 - 280.00	39.00	5	636.40	
Methoxychlor	UG/KG	1 / 2	2.700	2.70 - 2.70	39000.00			
Nickel	MG/KG	4 / 5	7.875	6.50 - 9.50	160.00		33.38	
OCDD	PG/G	1 / 1	186.121	186.12 - 186.12	4300.00[c]			
OCDF	PG/G	1 / 1	9.778	9.77 - 9.77	4300.00[c]			
Phenanthrene	UG/KG	4 / 5	77.000	49.00 - 120.00	310000.00[k]			
Potassium	MG/KG	4 / 5	990.500	726.00 - 1350.00				
Pyrene	UG/KG	5 / 5	80.800	52.00 - 120.00	230000.00			
Vanadium	MG/KG	5 / 5	18.340	14.30 - 24.50	55.00		77.38	
Zinc	MG/KG	5 / 5	83.800	39.00 - 124.00	2300.00		214.30	

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- . Endosulfan used as surrogate
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 512
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Aroclor-1260	UG/KG	1 / 1	220.000	220.00 - 220.00	83.00	1		
4,4'-DDE	UG/KG	1 / 1	180.000	180.00 - 180.00	1900.00			
Acetone	UG/KG	1 / 1	61.000	61.00 - 61.00	780000.00			
Aluminum	MG/KG	1 / 1	4600.000	4600.00 - 4600.00	7900.00		46180.00	
Arsenic	MG/KG	1 / 1	2.400	2.40 - 2.40	0.37	1	35.52	
Barium	MG/KG	1 / 1	58.800	58.80 - 58.80	550.00		43.80	1
Chromium	MG/KG	1 / 1	8.000	8.00 - 8.00	39.00		83.86	
Chrysene	UG/KG	1 / 1	57.000	57.00 - 57.00	88000.00			
Endosulfan II	UG/KG	1 / 1	8.800	8.80 - 8.80	47000.00			
Fluoranthene	UG/KG	1 / 1	100.000	100.00 - 100.00	310000.00			
Iron	MG/KG	1 / 1	3240.000	3240.00 - 3240.00			66170.00	
Manganese	MG/KG	1 / 1	39.200	39.20 - 39.20	39.00	1	1412.00	
Phenanthrene	UG/KG	1 / 1	100.000	100.00 - 100.00	310000.00[k]			
Pyrene	UG/KG	1 / 1	64.000	64.00 - 64.00	230000.00			
Vanadium	MG/KG	1 / 1	9.200	9.20 - 9.20	55.00		131.60	
Zinc	MG/KG	1 / 1	63.200	63.20 - 63.20	2300.00		129.60	

Table
Chemicals Detected at Site 513
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDD	UG/KG	2 / 2	3.100	1.80 - 4.40	2700.00			
4,4'-DDE	UG/KG	2 / 5	22.900	8.80 - 37.00	1900.00			
4,4'-DDT	UG/KG	1 / 5	20.000	20.00 - 20.00	1900.00			
Aldrin	UG/KG	2 / 2	0.160	0.14 - 0.18	38.00			
Aluminum	MG/KG	6 / 6	4238.333	3970.00 - 4510.00	7900.00		25310.00	
Benzo(a)anthracene	UG/KG	2 / 6	111.000	72.00 - 150.00	880.00			
Benzo(a)pyrene	UG/KG	1 / 6	67.000	67.00 - 67.00	88.00			
Calcium	MG/KG	2 / 6	1073.500	667.00 - 1480.00				
Chromium	MG/KG	6 / 6	4.500	4.30 - 5.10	39.00		85.65	
Chrysene	UG/KG	2 / 6	92.000	74.00 - 110.00	88000.00			
Copper	MG/KG	2 / 6	4.550	4.40 - 4.70	290.00		27.60	
Di-n-butylphthalate	UG/KG	5 / 6	45.600	39.00 - 50.00	780000.00			
Endosulfan II	UG/KG	1 / 2	0.330	0.33 - 0.33	47000.00			
Fluoranthene	UG/KG	2 / 6	105.000	100.00 - 110.00	310000.00			
Iron	MG/KG	6 / 6	2441.666	2270.00 - 2590.00			30910.00	
Lead	MG/KG	6 / 6	48.116	13.20 - 120.00	400.00[j]		118.00	1
Manganese	MG/KG	6 / 6	24.616	15.10 - 33.50	39.00		636.40	
Phenanthrene	UG/KG	1 / 6	43.000	43.00 - 43.00	310000.00[k]			
Pyrene	UG/KG	2 / 6	103.000	96.00 - 110.00	230000.00			
Zinc	MG/KG	6 / 6	18.400	8.00 - 42.60	2300.00		214.30	

Notes:

- * Retained as a chemical of potential concern
- r USEPA Region III Residential Risk-Based Screening Value, March 1[illegible]
- j Based on proposed action level for soil and treatment technique action [illegible]el for water
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 513
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Dieldrin	UG/KG	1 / 2	64.000	64.00 - 64.00	40.00	1		
* N-Nitroso-di-n-propylami	UG/KG	1 / 6	2350.000	2350.00 - 2350.00	91.00	1		
1,1-Dichloroethene	UG/KG	1 / 6	48.500	48.50 - 48.50	1100.00			
1,2,4-Trichlorobenzene	UG/KG	1 / 6	2400.000	2400.00 - 2400.00	78000.00			
1,4-Dichlorobenzene	UG/KG	1 / 6	2100.000	2100.00 - 2100.00	27000.00			
2,4-Dinitrotoluene	UG/KG	1 / 6	2200.000	2200.00 - 2200.00	16000.00			
2-Chlorophenol	UG/KG	1 / 6	4150.000	4150.00 - 4150.00	39000.00			
4,4'-DDD	UG/KG	1 / 3	0.275	0.27 - 0.27	2700.00			
4,4'-DDE	UG/KG	2 / 3	1.017	0.13 - 1.90	1900.00			
4,4'-DDT	UG/KG	3 / 3	24.023	0.37 - 70.50	1900.00			
4-Bromophenyl-phenyleth	UG/KG	1 / 6	96.000	96.00 - 96.00	450000.00			
4-Chloro-3-methylphenol	UG/KG	1 / 6	4550.000	4550.00 - 4550.00				
4-Nitrophenol	UG/KG	1 / 6	5250.000	5250.00 - 5250.00	480000.00			
Acenaphthene	UG/KG	1 / 6	1900.000	1900.00 - 1900.00	470000.00			
Aldrin	UG/KG	1 / 6	23.000	23.00 - 23.00	38.00			
Aluminum	MG/KG	5 / 5	3106.000	2320.00 - 3900.00	7900.00		46180.00	
Benzene	UG/KG	1 / 6	58.500	58.50 - 58.50	22000.00			
Chlorobenzene	UG/KG	1 / 6	50.500	50.50 - 50.50	160000.00			
Chromium	MG/KG	4 / 4	3.750	3.50 - 4.20	39.00		83.86	
Di-n-butylphthalate	UG/KG	4 / 6	59.916	38.00 - 73.66	780000.00			
Endosulfan I	UG/KG	1 / 6	0.480	0.48 - 0.48	47000.00			
Endosulfan II	UG/KG	1 / 6	0.535	0.53 - 0.53	47000.00			
Endrin	UG/KG	1 / 1	68.500	68.50 - 68.50	2300.00			
Endrin aldehyde	UG/KG	1 / 6	0.320	0.32 - 0.32	2300.00[h]			
Heptachlor	UG/KG	1 / 6	24.500	24.50 - 24.50	140.00			
Heptachlor epoxide	UG/KG	1 / 6	0.094	0.09 - 0.09	70.00			
Iron	MG/KG	5 / 5	2256.000	1100.00 - 2860.00			66170.00	
Lead	MG/KG	5 / 5	2.700	1.60 - 4.00	400.00[j]		68.69	
Manganese	MG/KG	5 / 5	12.620	3.50 - 15.60	39.00		1412.00	
Methoxychlor	UG/KG	1 / 5	1.650	1.65 - 1.65	39000.00			
Pentachlorophenol	UG/KG	1 / 6	3500.000	3500.00 - 3500.00	5300.00			
Phenol	UG/KG	1 / 6	4050.000	4050.00 - 4050.00	4700000.00			
Pyrene	UG/KG	1 / 6	2100.000	2100.00 - 2100.00	230000.00			
Toluene	UG/KG	1 / 6	55.000	55.00 - 55.00	1600000.00			
Trichloroethene	UG/KG	1 / 6	56.000	56.00 - 56.00	47000.00			

Table
Chemicals Detected at Site 513
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Zinc	MG/KG	3 / 4	4.233	3.70 - 4.90	2300.00		129.60	
beta-BHC	UG/KG	1 / 6	3.550	3.55 - 3.55	350.00			
delta-BHC	UG/KG	1 / 6	0.480	0.48 - 0.48	490.00[1]			
gamma-BHC (Lindane)	UG/KG	1 / 6	26.500	26.50 - 26.50	490.00			

Table
Chemicals Detected at Site 515
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	2 / 6	134.000	78.00 - 190.00	88.00	1		
* Dieldrin	UG/KG	1 / 3	68.000	68.00 - 68.00	40.00	1		
* Lead	MG/KG	5 / 6	277.540	27.70 - 522.00	400.00[j]	1	118.00	4
* N-Nitroso-di-n-propylami	UG/KG	1 / 6	2050.000	2050.00 - 2050.00	91.00	1		
1,1-Dichloroethene	UG/KG	1 / 6	51.500	51.50 - 51.50	1100.00			
1,2,4-Trichlorobenzene	UG/KG	1 / 6	2300.000	2300.00 - 2300.00	78000.00			
1,4-Dichlorobenzene	UG/KG	1 / 6	2100.000	2100.00 - 2100.00	27000.00			
2,4-Dinitrotoluene	UG/KG	1 / 6	2100.000	2100.00 - 2100.00	16000.00			
2-Chlorophenol	UG/KG	1 / 6	3850.000	3850.00 - 3850.00	39000.00			
4,4'-DDD	UG/KG	2 / 4	3.950	2.80 - 5.10	2700.00			
4,4'-DDE	UG/KG	5 / 6	69.500	16.00 - 190.00	1900.00			
4,4'-DDT	UG/KG	3 / 5	59.666	12.00 - 150.00	1900.00			
4-Chloro-3-methylphenol	UG/KG	1 / 6	4850.000	4850.00 - 4850.00				
4-Nitrophenol	UG/KG	1 / 6	4150.000	4150.00 - 4150.00	480000.00			
Acenaphthene	UG/KG	1 / 6	1900.000	1900.00 - 1900.00	470000.00			
Aluminum	MG/KG	5 / 6	3640.000	2940.00 - 4250.00	7900.00		25310.00	
Anthracene	UG/KG	1 / 6	55.000	55.00 - 55.00	2300000.00			
Arsenic	MG/KG	5 / 6	4.320	1.60 - 12.50	0.37	5	14.81	
Barium	MG/KG	6 / 6	71.516	31.30 - 102.00	550.00		40.33	5
Benzene	UG/KG	1 / 6	59.000	59.00 - 59.00	22000.00			
Benzo(a)anthracene	UG/KG	5 / 6	95.300	42.00 - 200.00	880.00			
Cadmium	MG/KG	1 / 6	0.560	0.56 - 0.56	3.90		1.05	
Calcium	MG/KG	6 / 6	8561.666	6610.00 - 15900.00				
Chlorobenzene	UG/KG	1 / 6	52.000	52.00 - 52.00	160000.00			
Chromium	MG/KG	5 / 6	8.260	3.80 - 12.30	39.00		85.65	
Chrysene	UG/KG	5 / 6	116.200	54.00 - 220.00	88000.00			
Cobalt	MG/KG	1 / 6	6.000	6.00 - 6.00	470.00		5.86	1
Copper	MG/KG	5 / 6	58.300	5.10 - 117.00	290.00		27.60	4
Endosulfan I	UG/KG	1 / 2	1.200	1.20 - 1.20	47000.00			
Endrin	UG/KG	1 / 2	76.000	76.00 - 76.00	2300.00			
Fluoranthene	UG/KG	5 / 6	183.666	58.33 - 450.00	310000.00			
Heptachlor	UG/KG	4 / 5	8.450	1.80 - 27.00	140.00			
Heptachlor epoxide	UG/KG	1 / 2	0.430	0.43 - 0.43	70.00			
Iron	MG/KG	6 / 6	5821.666	2530.00 - 11900.00			30910.00	
Manganese	MG/KG	5 / 6	54.500	33.30 - 68.20	39.00	4	636.40	

Table
Chemicals Detected at Site 515
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Mercury	MG/KG	4 / 6	0.172	0.15 - 0.21	2.30		0.49	
Methoxychlor	UG/KG	2 / 3	5.200	3.50 - 6.90	39000.00			
Nickel	MG/KG	3 / 6	11.600	8.50 - 14.40	160.00		33.38	
Pentachlorophenol	UG/KG	1 / 6	2700.000	2700.00 - 2700.00	5300.00			
Petroleum Hydrocarbons,		4 / 4	56.575	27.20 - 84.70				
Phenanthrene	UG/KG	4 / 6	120.750	49.00 - 290.00	310000.00[k]			
Phenol	UG/KG	1 / 6	3950.000	3950.00 - 3950.00	4700000.00			
Pyrene	UG/KG	5 / 6	443.600	88.00 - 1450.00	230000.00			
Tin	MG/KG	4 / 6	35.175	20.60 - 46.80	4700.00			
Toluene	UG/KG	1 / 6	56.000	56.00 - 56.00	1600000.00			
Trichloroethene	UG/KG	1 / 6	56.000	56.00 - 56.00	47000.00			
Vanadium	MG/KG	4 / 6	7.000	5.70 - 8.30	55.00		77.38	
Vinyl acetate	UG/KG	1 / 6	1.000	1.00 - 1.00	7800000.00			
Zinc	MG/KG	6 / 6	295.566	32.40 - 410.00	2300.00		214.30	5
alpha-BHC	UG/KG	1 / 6	0.093	0.09 - 0.09	100.00			
beta-BHC	UG/KG	2 / 5	1.500	1.10 - 1.90	350.00			
gamma-BHC (Lindane)	UG/KG	1 / 5	29.000	29.00 - 29.00	490.00			
u108703	?	1 / 6	2100.000	2100.00 - 2100.00				

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- j Based on proposed action level for soil and treatment technique action level for water
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 515
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	1 / 1	0.491	0.49 - 0.49	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	0.872	0.87 - 0.87	430.00[c]			
123789-HxCDF	PG/G	1 / 1	0.541	0.54 - 0.54	43.00[c]			
4,4'-DDE	UG/KG	1 / 2	1.400	1.40 - 1.40	1900.00			
4,4'-DDT	UG/KG	1 / 2	0.920	0.92 - 0.92	1900.00			
Aluminum	MG/KG	5 / 5	2840.000	2230.00 - 3530.00	7900.00		46180.00	
Calcium	MG/KG	4 / 5	892.750	667.00 - 1040.00				
Chromium	MG/KG	5 / 5	3.700	3.30 - 4.20	39.00		83.86	
Copper	MG/KG	1 / 5	2.900	2.90 - 2.90	290.00		31.62	
Endosulfan II	UG/KG	1 / 2	0.270	0.27 - 0.27	47000.00			
Heptachlor epoxide	UG/KG	1 / 5	0.340	0.34 - 0.34	70.00			
Iron	MG/KG	5 / 5	2238.000	1800.00 - 2720.00			66170.00	
Lead	MG/KG	5 / 5	5.200	2.10 - 11.40	400.00[j]		68.69	
Manganese	MG/KG	5 / 5	20.780	16.20 - 25.80	39.00		1412.00	
Methoxychlor	UG/KG	1 / 2	1.200	1.20 - 1.20	39000.00			
OCDD	PG/G	1 / 1	2.047	2.04 - 2.04	4300.00[c]			
OCDF	PG/G	1 / 1	1.590	1.59 - 1.59	4300.00[c]			
Petroleum Hydrocarbons,		6 / 6	32.700	12.40 - 67.60				
Zinc	MG/KG	5 / 5	6.860	4.00 - 11.20	2300.00		129.60	

Table
Chemicals Detected at Site 516
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	1 / 2	110.000	110.00 - 110.00	88.00	1		
Acetone	UG/KG	2 / 2	43.500	11.00 - 76.00	780000.00			
Benzo(a)anthracene	UG/KG	1 / 2	82.000	82.00 - 82.00	880.00			
Chrysene	UG/KG	1 / 2	100.000	100.00 - 100.00	88000.00			
Copper	MG/KG	1 / 2	12.200	12.20 - 12.20	290.00		27.60	
Fluoranthene	UG/KG	1 / 2	110.000	110.00 - 110.00	310000.00			
Petroleum Hydrocarbons,		2 / 2	59.900	17.80 - 102.00				
Phenanthrene	UG/KG	1 / 2	50.000	50.00 - 50.00	310000.00[k]			
Pyrene	UG/KG	1 / 2	120.000	120.00 - 120.00	230000.00			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1[illegible]
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 516
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDT	UG/KG	1 / 2	0.770	0.77 - 0.77	1900.00			
Acetone	UG/KG	2 / 2	16.500	16.00 - 17.00	780000.00			
Heptachlor	UG/KG	1 / 2	0.380	0.38 - 0.38	140.00			
Petroleum Hydrocarbons,		2 / 2	16.700	13.60 - 19.80				

Table
Chemicals Detected at Site GDC
Deep Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Methylene chloride	UG/L	1 / 2	2.000	2.00 - 2.00	4.10			

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 012
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 3	56.500	56.50 - 56.50	0.04	1		
* 1234678-HpCDD	PG/L	2 / 2	504.833	2.03 - 1007.63	50.00[c]	1		
* 1234678-HpCDF	PG/L	1 / 2	1160.434	1160.43 - 1160.43	50.00[c]	1		
* 123478-HxCDD	PG/L	1 / 2	1088.191	1088.19 - 1088.19	5.00[c]	1		
* 123478-HxCDF	PG/L	1 / 2	1231.404	1231.40 - 1231.40	5.00[c]	1		
* 1234789-HpCDF	PG/L	1 / 2	1095.780	1095.78 - 1095.78	5.00[c]	1		
* 123678-HxCDD	PG/L	1 / 2	1070.812	1070.81 - 1070.81	5.00[c]	1		
* 123678-HxCDF	PG/L	1 / 2	807.408	807.40 - 807.40	5.00[c]	1		
* 12378-PeCDD	PG/L	1 / 2	1188.072	1188.07 - 1188.07	1.00[c]	1		
* 12378-PeCDF	PG/L	1 / 2	837.591	837.59 - 837.59	10.00[c]	1		
* 123789-HxCDD	PG/L	1 / 2	1038.694	1038.69 - 1038.69	5.00[c]	1		
* 123789-HxCDF	PG/L	1 / 2	1220.611	1220.61 - 1220.61	5.00[c]	1		
* 234678-HxCDF	PG/L	1 / 2	863.612	863.61 - 863.61	5.00[c]	1		
* 23478-PeCDF	PG/L	1 / 2	1273.621	1273.62 - 1273.62	1.00[c]	1		
* 2378-TCDD	PG/L	1 / 2	195.902	195.90 - 195.90	0.50	1		
* 2378-TCDF	PG/L	1 / 2	265.949	265.94 - 265.94	5.00[c]	1		
* Arsenic	UG/L	1 / 3	177.000	177.00 - 177.00	0.03	1	27.99	1
* Benzene	UG/L	1 / 3	54.000	54.00 - 54.00	0.34	1		
* Chlorobenzene	UG/L	1 / 3	33.000	33.00 - 33.00	3.90	1		
* Nickel	UG/L	3 / 3	2816687.333	775062.00 - 4240000.00	73.00	3		
* OCDD	PG/L	1 / 2	2151.396	2151.39 - 2151.39	500.00[c]	1		
* OCDF	PG/L	1 / 2	2364.624	2364.62 - 2364.62	500.00[c]	1		
* Phorate	UG/L	1 / 1	14.000	14.00 - 14.00	0.73	1		
* Trichloroethene	UG/L	1 / 3	54.500	54.50 - 54.50	1.60	1		
2,4,5-T	UG/L	1 / 1	1.550	1.55 - 1.55	37.00			
2,4,5-TP (Silvex)	UG/L	1 / 1	1.550	1.55 - 1.55	29.00			
Acetone	UG/L	1 / 3	8.000	8.00 - 8.00	370.00			
Calcium	UG/L	3 / 3	336166.666	170500.00 - 655000.00				
Iron	UG/L	3 / 3	31977.000	161.00 - 93700.00				
Lead	UG/L	1 / 3	4.900	4.90 - 4.90	15.00[j]		4.70	1
Magnesium	UG/L	3 / 3	446333.333	318000.00 - 597000.00				
Manganese	UG/L	3 / 3	1698.333	93.50 - 4870.00	18.00	3	6085.00	
Selenium	UG/L	1 / 3	6.100	6.10 - 6.10	18.00		3.15	1
Tin	UG/L	3 / 3	307.833	236.00 - 374.00	2200.00			
Toluene	UG/L	1 / 3	50.000	50.00 - 50.00	75.00			

Table
Chemicals Detected at Site 012
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Total Hepta-Dioxins		2 / 2	341.057	2.03 - 680.08				
Total Hepta-Furans		1 / 2	1544.797	1544.79 - 1544.79				
Total Hexa-Dioxins		1 / 2	3197.698	3197.69 - 3197.69				
Total Hexa-Furans		1 / 2	3310.700	3310.70 - 3310.70				
Total Pental-Furans		1 / 2	1715.329	1715.32 - 1715.32				
Zinc	UG/L	2 / 3	45.000	42.80 - 47.20	1100.00			
u36088229	?	1 / 2	1190.909	1190.90 - 1190.90				
u41903575	?	1 / 2	195.902	195.90 - 195.90				
u55722275	?	1 / 2	265.949	265.94 - 265.94				

Table
Chemicals Detected at Site 671
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	UG/L	1 / 1	182000.000	182000.00 - 182000.00	73.00	1		
Calcium	UG/L	1 / 1	131000.000	131000.00 - 131000.00				
Lead	UG/L	1 / 1	6.800	6.80 - 6.80	15.00[j]		4.70	1
Magnesium	UG/L	1 / 1	53400.000	53400.00 - 53400.00				
Manganese	UG/L	1 / 1	659.000	659.00 - 659.00	18.00	1	6085.00	
Methylene chloride	UG/L	1 / 4	2.000	2.00 - 2.00	4.10			

Table
Chemicals Detected at Site 675
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Dimethoate	UG/L	1 / 2	2.000	2.00 - 2.00	0.73	1		
1-Methyl napthalene		2 / 2	12.000	7.00 - 17.00				
2-Methylnaphthalene	UG/L	1 / 2	5.000	5.00 - 5.00	150.00[i]			
Acenaphthene	UG/L	2 / 2	2.000	1.00 - 3.00	220.00			
Dibenzofuran	UG/L	2 / 2	1.000	1.00 - 1.00	15.00			
Fluorene	UG/L	1 / 2	1.000	1.00 - 1.00	150.00			
Naphthalene	UG/L	1 / 2	1.000	1.00 - 1.00	150.00			

Table
Chemicals Detected at Site 676
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Carbon disulfide	UG/L	1 / 1	1.000	1.00 - 1.00	2.10			
Di-n-butylphthalate	UG/L	1 / 1	5.000	5.00 - 5.00	370.00			

Table
Chemicals Detected at Site 677
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 1	48.500	48.50 - 48.50	0.04	1		
* 1,2,4-Trichlorobenzene	UG/L	1 / 1	56.500	56.50 - 56.50	1.80	1		
* 1,4-Dichlorobenzene	UG/L	1 / 1	53.000	53.00 - 53.00	0.44	1		
* 1234678-HpCDD	PG/L	1 / 1	631.057	631.05 - 631.05	50.00[c]	1		
* 1234678-HpCDF	PG/L	1 / 1	1049.952	1049.95 - 1049.95	50.00[c]	1		
* 123478-HxCDD	PG/L	1 / 1	890.251	890.25 - 890.25	5.00[c]	1		
* 123478-HxCDF	PG/L	1 / 1	1044.232	1044.23 - 1044.23	5.00[c]	1		
* 1234789-HpCDF	PG/L	1 / 1	912.759	912.75 - 912.75	5.00[c]	1		
* 123678-HxCDD	PG/L	1 / 1	937.417	937.41 - 937.41	5.00[c]	1		
* 123678-HxCDF	PG/L	1 / 1	1026.158	1026.15 - 1026.15	5.00[c]	1		
* 12378-PeCDD	PG/L	1 / 1	973.229	973.22 - 973.22	1.00[c]	1		
* 12378-PeCDF	PG/L	1 / 1	987.708	987.70 - 987.70	10.00[c]	1		
* 123789-HxCDD	PG/L	1 / 1	911.688	911.68 - 911.68	5.00[c]	1		
* 123789-HxCDF	PG/L	1 / 1	1047.563	1047.56 - 1047.56	5.00[c]	1		
* 2,4-Dinitrotoluene	UG/L	1 / 1	60.000	60.00 - 60.00	7.30	1		
* 2-Chlorophenol	UG/L	1 / 1	105.000	105.00 - 105.00	18.00	1		
* 234678-HxCDF	PG/L	1 / 1	958.752	958.75 - 958.75	5.00[c]	1		
* 23478-PeCDF	PG/L	1 / 1	956.370	956.37 - 956.37	1.00[c]	1		
* 2378-TCDD	PG/L	1 / 1	168.457	168.45 - 168.45	0.50	1		
* 2378-TCDF	PG/L	1 / 1	175.106	175.10 - 175.10	5.00[c]	1		
* Benzene	UG/L	1 / 1	58.500	58.50 - 58.50	0.34	1		
* Chlorobenzene	UG/L	1 / 1	53.500	53.50 - 53.50	3.90	1		
* N-Nitroso-di-n-propylami	UG/L	1 / 1	58.500	58.50 - 58.50	0.00	1		
* OCDD	PG/L	1 / 1	1672.140	1672.14 - 1672.14	500.00[c]	1		
* OCDF	PG/L	1 / 1	1427.506	1427.50 - 1427.50	500.00[c]	1		
* Pentachlorophenol	UG/L	1 / 1	70.500	70.50 - 70.50	0.60	1		
* Trichloroethene	UG/L	1 / 1	55.000	55.00 - 55.00	1.60	1		
4-Chloro-3-methylphenol	UG/L	1 / 1	125.000	125.00 - 125.00				
4-Nitrophenol	UG/L	1 / 1	45.500	45.50 - 45.50	230.00			
Acenaphthene	UG/L	1 / 1	51.000	51.00 - 51.00	220.00			
Chloroethane	UG/L	1 / 1	3.000	3.00 - 3.00	71.00			
Methylene chloride	UG/L	1 / 1	1.000	1.00 - 1.00	4.10			
Phenol	UG/L	1 / 1	68.000	68.00 - 68.00	2200.00			
Pyrene	UG/L	1 / 1	56.000	56.00 - 56.00	110.00			
Toluene	UG/L	1 / 1	57.000	57.00 - 57.00	75.00			

Table
Chemicals Detected at Site 677
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Total Hepta-Dioxins		1 / 1	639.339	639.33 - 639.33				
Total Hepta-Furans		1 / 1	1980.120	1980.12 - 1980.12				
Total Hexa-Dioxins		1 / 1	2742.379	2742.37 - 2742.37				
Total Hexa-Furans		1 / 1	2723.089	2723.08 - 2723.08				
Total Pental-Furans		1 / 1	1966.238	1966.23 - 1966.23				
u36088229	?	1 / 1	975.604	975.60 - 975.60				
u41903575	?	1 / 1	168.457	168.45 - 168.45				
u55722275	?	1 / 1	175.106	175.10 - 175.10				

Table
Chemicals Detected at Site 678
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	UG/L	1 / 1	104000.000	104000.00 - 104000.00	73.00	1		
Calcium	UG/L	1 / 1	95500.000	95500.00 - 95500.00				
Iron	UG/L	1 / 1	1770.000	1770.00 - 1770.00				
Lead	UG/L	1 / 1	3.500	3.50 - 3.50	15.00[j]		4.70	
Magnesium	UG/L	1 / 1	29600.000	29600.00 - 29600.00				
Manganese	UG/L	1 / 1	150.000	150.00 - 150.00	18.00	1	6085.00	
Methylene chloride	UG/L	1 / 2	1.000	1.00 - 1.00	4.10			

Table
Chemicals Detected at Site 687
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Arsenic	UG/L	2 / 4	35.900	33.20 - 38.60	0.03	2	27.99	2
* Methylene chloride	UG/L	2 / 4	8.500	2.00 - 15.00	4.10	1		
* Nickel	UG/L	4 / 4	540750.000	375000.00 - 895000.00	73.00	4		
Acetone	UG/L	1 / 4	8.000	8.00 - 8.00	370.00			
Calcium	UG/L	4 / 4	208000.000	164000.00 - 235000.00				
Iron	UG/L	4 / 4	3392.500	2480.00 - 4420.00				
Lead	UG/L	1 / 4	4.000	4.00 - 4.00	15.00[j]		4.70	
Magnesium	UG/L	4 / 4	122750.000	111000.00 - 140000.00				
Manganese	UG/L	4 / 4	734.750	165.00 - 1330.00	18.00	4	6085.00	
Tin	UG/L	4 / 4	176.750	104.00 - 221.00	2200.00			
Zinc	UG/L	4 / 4	33.800	23.30 - 41.40	1100.00			

Table
Chemicals Detected at Site GD1
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 1	57.000	57.00 - 57.00	0.04	1		
* 1,2,4-Trichlorobenzene	UG/L	1 / 1	97.000	97.00 - 97.00	1.80	1		
* 1,4-Dichlorobenzene	UG/L	1 / 1	88.500	88.50 - 88.50	0.44	1		
* 2,4-Dinitrotoluene	UG/L	1 / 1	79.500	79.50 - 79.50	7.30	1		
* 2-Chlorophenol	UG/L	1 / 1	140.000	140.00 - 140.00	18.00	1		
* Benzene	UG/L	1 / 1	51.000	51.00 - 51.00	0.34	1		
* Chlorobenzene	UG/L	1 / 1	48.000	48.00 - 48.00	3.90	1		
* N-Nitroso-di-n-propylami	UG/L	1 / 1	81.500	81.50 - 81.50	0.00	1		
* Nickel	UG/L	1 / 1	797500.000	797500.00 - 797500.00	73.00	1		
* Pentachlorophenol	UG/L	1 / 1	135.000	135.00 - 135.00	0.60	1		
* Trichloroethene	UG/L	1 / 1	51.000	51.00 - 51.00	1.60	1		
4-Chloro-3-methylphenol	UG/L	1 / 1	150.000	150.00 - 150.00				
4-Nitrophenol	UG/L	1 / 1	52.500	52.50 - 52.50	230.00			
Acenaphthene	UG/L	1 / 1	87.500	87.50 - 87.50	220.00			
Caleium	UG/L	1 / 1	167000.000	167000.00 - 167000.00				
Hexavalent Chromium		1 / 1	0.010	0.01 - 0.01				
Lead	UG/L	1 / 1	3.900	3.90 - 3.90	15.00[j]		4.70	
Magnesium	UG/L	1 / 1	118500.000	118500.00 - 118500.00				
Manganese	UG/L	1 / 1	97.800	97.80 - 97.80	18.00	1	6085.00	
Phenol	UG/L	1 / 1	73.000	73.00 - 73.00	2200.00			
Pyrene	UG/L	1 / 1	90.000	90.00 - 90.00	110.00			
Toluene	UG/L	1 / 1	49.500	49.50 - 49.50	75.00			
u14808798	?	1 / 1	388.000	388.00 - 388.00				
u7782505	?	1 / 1	1600.000	1600.00 - 1600.00				
uTDS	?	1 / 1	3940.000	3940.00 - 3940.00				

Table
Chemicals Detected at Site GDI
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,2,4-Trichlorobenzene	UG/L	1 / 13	96.500	96.50 - 96.50	1.80	1		
* 1,4-Dichlorobenzene	UG/L	2 / 20	50.000	7.00 - 93.00	0.44	2		
* 1234678-HpCDD	PG/L	4 / 9	1025.426	2.18 - 2167.98	50.00[c]	2		
* 1234678-HpCDF	PG/L	4 / 9	1390.693	16.65 - 3150.79	50.00[c]	2		
* 123478-HxCDD	PG/L	2 / 9	1569.852	1538.76 - 1600.93	5.00[c]	2		
* 123478-HxCDF	PG/L	2 / 9	2211.115	2137.71 - 2284.51	5.00[c]	2		
* 1234789-HpCDF	PG/L	2 / 9	2196.286	1995.01 - 2397.56	5.00[c]	2		
* 123678-HxCDD	PG/L	2 / 9	1962.526	1787.33 - 2137.71	5.00[c]	2		
* 123678-HxCDF	PG/L	2 / 9	2550.128	2122.78 - 2977.47	5.00[c]	2		
* 12378-PeCDD	PG/L	2 / 9	1933.731	1870.33 - 1997.12	1.00[c]	2		
* 12378-PeCDF	PG/L	2 / 9	2143.433	2014.37 - 2272.49	10.00[c]	2		
* 123789-HxCDD	PG/L	2 / 9	1678.971	1563.66 - 1794.28	5.00[c]	2		
* 123789-HxCDF	PG/L	3 / 9	1462.742	4.13 - 2455.46	5.00[c]	2		
* 2,4-Dinitrotoluene	UG/L	1 / 13	93.000	93.00 - 93.00	7.30	1		
* 2-Chlorophenol	UG/L	1 / 13	120.000	120.00 - 120.00	18.00	1		
* 234678-HxCDF	PG/L	2 / 9	2280.740	1852.51 - 2708.96	5.00[c]	2		
* 23478-PeCDF	PG/L	2 / 9	2326.826	2042.39 - 2611.26	1.00[c]	2		
* 2378-TCDD	PG/L	2 / 9	342.636	315.73 - 369.53	0.50	2		
* 2378-TCDF	PG/L	2 / 9	411.875	356.71 - 467.03	5.00[c]	2		
* 4-Nitrophenol	UG/L	1 / 13	230.000	230.00 - 230.00	230.00	1		
* Acetone	UG/L	3 / 9	143.000	6.00 - 400.00	370.00	1		
* Acetophenone	UG/L	2 / 13	1.000	1.00 - 1.00	0.00	2		
* Aroclor-1260	UG/L	1 / 17	1.300	1.30 - 1.30	0.00	1		
* Carbon disulfide	UG/L	1 / 9	9.000	9.00 - 9.00	2.10	1		
* Chloroform	UG/L	2 / 9	5.500	1.00 - 10.00	0.15	2		
* Dimethoate	UG/L	1 / 14	22.000	22.00 - 22.00	0.73	1		
* Disulfoton	UG/L	1 / 1	24.000	24.00 - 24.00	0.15	1		
* Lead	UG/L	7 / 19	7.342	3.40 - 15.60	15.00[j]	1	4.70	3
* Methyl parathion	UG/L	1 / 1	11.620	11.62 - 11.62	0.91	1		
* Methylene chloride	UG/L	3 / 9	8.000	1.00 - 20.00	4.10	1		
* N-Nitroso-di-n-propylami	UG/L	1 / 13	84.500	84.50 - 84.50	0.00	1		
* Nickel	UG/L	19 / 19	2366218.421	20300.00 - 8120000.00	73.00	19		
* OCDD	PG/L	2 / 9	3786.180	3630.87 - 3941.48	500.00[c]	2		
* OCDF	PG/L	2 / 9	4479.438	3909.67 - 5049.20	500.00[c]	2		
* Parathion	UG/L	2 / 2	12.085	0.17 - 24.00	22.00	1		

Table
Chemicals Detected at Site GDI
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Pentachlorophenol	UG/L	1 / 13	95.000	95.00 - 95.00	0.60	1		
* Phorate	UG/L	1 / 2	25.000	25.00 - 25.00	0.73	1		
* Sulfotepp	UG/L	1 / 1	25.000	25.00 - 25.00	1.80	1		
* Tetrachloroethene	UG/L	1 / 9	4.000	4.00 - 4.00	1.10	1		
* Trichloroethene	UG/L	1 / 9	6.000	6.00 - 6.00	1.60	1		
* bis(2-Ethylhexyl)phthalate	UG/L	1 / 13	27.000	27.00 - 27.00	4.80	1		
1,1-Dichloroethane	UG/L	1 / 9	2.000	2.00 - 2.00	81.00			
1,2-Dichlorobenzene	UG/L	1 / 20	1.000	1.00 - 1.00	37.00			
1,2-Dichloroethene (total)	UG/L	1 / 9	2.000	2.00 - 2.00	5.50			
1,3-Dichlorobenzene	UG/L	1 / 20	4.000	4.00 - 4.00	54.00			
4,4'-DDT	UG/L	1 / 12	0.091	0.09 - 0.09	0.20			
4-Chloro-3-methylphenol	UG/L	1 / 13	62.000	62.00 - 62.00				
Acenaphthene	UG/L	2 / 13	45.000	2.00 - 88.00	220.00			
Arsenic	UG/L	5 / 19	18.580	10.00 - 25.90	0.03	5	27.99	
Barium	UG/L	1 / 17	278.000	278.00 - 278.00	260.00	1	323.00	
Calcium	UG/L	19 / 19	274915.789	39000.00 - 964000.00				
Chlorobenzene	UG/L	1 / 9	2.000	2.00 - 2.00	3.90			
Di-n-butylphthalate	UG/L	3 / 13	2.000	1.00 - 3.00	370.00			
Dieldrin	UG/L	1 / 10	0.004	0.00 - 0.00	0.00			
Endosulfan I	UG/L	1 / 15	0.000	0.00 - 0.00	22.00			
Endrin aldehyde	UG/L	1 / 12	0.049	0.04 - 0.04	1.10[h]			
Ethylbenzene	UG/L	1 / 9	3.000	3.00 - 3.00	130.00			
Famphur	UG/L	1 / 14	25.000	25.00 - 25.00				
Heptachlor	UG/L	1 / 10	0.000	0.00 - 0.00	0.00			
Hexavalent Chromium		2 / 3	0.102	0.09 - 0.10				
Iron	UG/L	9 / 17	14004.555	981.00 - 31900.00				
Magnesium	UG/L	19 / 19	359578.947	14700.00 - 1410000.00				
Manganese	UG/L	19 / 19	1028.744	23.40 - 4850.00	18.00	19	6085.00	
Phenol	UG/L	1 / 13	85.500	85.50 - 85.50	2200.00			
Pyrene	UG/L	1 / 13	103.500	103.50 - 103.50	110.00			
Selenium	UG/L	1 / 19	6.300	6.30 - 6.30	18.00		3.15	1
Total Hepta-Dioxins		4 / 9	1051.293	2.18 - 2199.53				
Total Hepta-Furans		4 / 9	2569.536	16.65 - 5276.39				
Total Hexa-Dioxins		2 / 9	5211.349	4951.93 - 5470.76				
Total Hexa-Furans		4 / 9	4640.713	4.13 - 10426.41				

Table
Chemicals Detected at Site GDI
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Total Pental-Furans		2 / 9	4532.922	4132.43 - 4933.41				
Xylene (total)	UG/L	1 / 9	6.000	6.00 - 6.00	1200.00			
Zinc	UG/L	3 / 18	33.433	20.90 - 53.40	1100.00			
alpha-BHC	UG/L	1 / 14	0.000	0.00 - 0.00	0.01			
gamma-BHC (Lindane)	UG/L	1 / 12	0.002	0.00 - 0.00	0.05			
u14808798	?	2 / 2	869.250	478.50 - 1260.00				
u36088229	?	2 / 9	1933.731	1870.33 - 1997.12				
u41903575	?	2 / 9	342.636	315.73 - 369.53				
u55722275	?	2 / 9	411.875	356.71 - 467.03				
u7782505	?	2 / 2	2604.765	2319.53 - 2890.00				
uTDS	?	2 / 2	6345.333	5560.66 - 7130.00				

Table
Chemicals Detected at Site GRD
Shallow Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 11	42.000	42.00 - 42.00	0.04	1		
* Benzene	UG/L	1 / 11	47.000	47.00 - 47.00	0.34	1		
* Chlorobenzene	UG/L	1 / 11	42.000	42.00 - 42.00	3.90	1		
* Trichloroethene	UG/L	1 / 11	47.500	47.50 - 47.50	1.60	1		
Acetone	UG/L	6 / 8	19.000	7.00 - 60.00	370.00			
Hexavalent Chromium		1 / 1	0.106	0.10 - 0.10				
Phorate	UG/L	1 / 1	0.260	0.26 - 0.26	0.73			
Toluene	UG/L	1 / 11	41.500	41.50 - 41.50	75.00			

Table
Chemicals Detected at Site 517
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDD	UG/KG	1 / 1	0.860	0.86 - 0.86	2700.00			
4,4'-DDE	UG/KG	2 / 3	8.700	7.60 - 9.80	1900.00			
4,4'-DDT	UG/KG	3 / 3	2.166	1.80 - 2.70	1900.00			
Acetone	UG/KG	1 / 5	28.000	28.00 - 28.00	780000.00			
Aldrin	UG/KG	1 / 4	0.180	0.18 - 0.18	38.00			
Aluminum	MG/KG	5 / 5	5530.000	3450.00 - 6620.00	7900.00		25310.00	
Aroclor-1260	UG/KG	1 / 5	79.000	79.00 - 79.00	83.00			
Butylbenzylphthalate	UG/KG	1 / 5	720.000	720.00 - 720.00	1600000.00			
Calcium	MG/KG	3 / 5	6416.666	1270.00 - 9770.00				
Chromium	MG/KG	5 / 5	6.540	5.30 - 10.10	39.00		85.65	
Di-n-butylphthalate	UG/KG	5 / 5	65.800	49.00 - 89.00	780000.00			
Endrin	UG/KG	1 / 3	0.750	0.75 - 0.75	2300.00			
Endrin aldehyde	UG/KG	2 / 5	0.960	0.72 - 1.20	2300.00[h]			
Heptachlor	UG/KG	1 / 3	0.320	0.32 - 0.32	140.00			
Heptachlor epoxide	UG/KG	1 / 1	0.340	0.34 - 0.34	70.00			
Iron	MG/KG	5 / 5	2416.000	1760.00 - 3040.00			30910.00	
Manganese	MG/KG	5 / 5	20.400	15.30 - 27.30	39.00		636.40	
Mercury	MG/KG	1 / 5	0.160	0.16 - 0.16	2.30		0.49	
Methoxychlor	UG/KG	1 / 2	1.200	1.20 - 1.20	39000.00			
Nickel	MG/KG	1 / 5	4.800	4.80 - 4.80	160.00		33.38	
Vanadium	MG/KG	1 / 5	6.900	6.90 - 6.90	55.00		77.38	
bis(2-Ethylhexyl)phthalate	UG/KG	2 / 5	307.000	74.00 - 540.00	46000.00			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- h Endrin used as surrogate

Table
Chemicals Detected at Site 517
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	1 / 1	7.307	7.30 - 7.30	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	7.632	7.63 - 7.63	430.00[c]			
123678-HxCDF	PG/G	1 / 1	0.535	0.53 - 0.53	43.00[c]			
123789-HxCDF	PG/G	1 / 1	0.446	0.44 - 0.44	43.00[c]			
234678-HxCDF	PG/G	1 / 1	0.258	0.25 - 0.25	43.00[c]			
4,4'-DDT	UG/KG	1 / 4	0.390	0.39 - 0.39	1900.00			
Aluminum	MG/KG	4 / 4	5142.500	4150.00 - 5880.00	7900.00		46180.00	
Calcium	MG/KG	1 / 4	3170.000	3170.00 - 3170.00				
Chromium	MG/KG	4 / 4	5.300	4.70 - 5.60	39.00		83.86	
Di-n-butylphthalate	UG/KG	4 / 4	83.250	39.00 - 110.00	780000.00			
Endosulfan I	UG/KG	1 / 3	0.360	0.36 - 0.36	47000.00			
Endrin	UG/KG	1 / 4	0.850	0.85 - 0.85	2300.00			
Iron	MG/KG	4 / 4	1535.250	727.00 - 2640.00			66170.00	
Manganese	MG/KG	4 / 4	10.725	4.20 - 18.60	39.00		1412.00	
OCDD	PG/G	1 / 1	92.445	92.44 - 92.44	4300.00[c]			
OCDF	PG/G	1 / 1	14.373	14.37 - 14.37	4300.00[c]			

Table
Chemicals Detected at Site 518
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 123478-HxCDF	PG/G	1 / 1	110.840	110.84 - 110.84	43.00[c]	1		
* 1234789-HpCDF	PG/G	1 / 1	49.725	49.72 - 49.72	43.00[c]	1		
* 12378-PeCDD	PG/G	1 / 1	21.370	21.37 - 21.37	8.60[c]	1		
* 2378-TCDD	PG/G	1 / 1	6.550	6.55 - 6.55	4.30	1		
* Benzo(a)pyrene	UG/KG	2 / 5	109.500	69.00 - 150.00	88.00	1		
* Chlordane	UG/KG	1 / 5	7400.000	7400.00 - 7400.00	470.00	1		
* N-Nitroso-di-n-propylami	UG/KG	1 / 5	2150.000	2150.00 - 2150.00	91.00	1		
1,1-Dichloroethene	UG/KG	1 / 5	44.000	44.00 - 44.00	1100.00			
1,2,4-Trichlorobenzene	UG/KG	1 / 5	2075.000	2075.00 - 2075.00	78000.00			
1,4-Dichlorobenzene	UG/KG	1 / 5	1900.000	1900.00 - 1900.00	27000.00			
123678-HxCDD	PG/G	1 / 1	18.517	18.51 - 18.51	43.00[c]			
12378-PeCDF	PG/G	1 / 1	13.496	13.49 - 13.49	86.00[c]			
123789-HxCDF	PG/G	1 / 1	3.853	3.85 - 3.85	43.00[c]			
2,4-Dinitrotoluene	UG/KG	1 / 5	1666.666	1666.66 - 1666.66	16000.00			
2-Chlorophenol	UG/KG	1 / 5	4000.000	4000.00 - 4000.00	39000.00			
23478-PeCDF	PG/G	1 / 1	2.006	2.00 - 2.00	8.60[c]			
4,4'-DDT	UG/KG	3 / 3	72.333	35.00 - 130.00	1900.00			
4-Chloro-3-methylphenol	UG/KG	1 / 5	4100.000	4100.00 - 4100.00				
4-Nitrophenol	UG/KG	1 / 5	3325.000	3325.00 - 3325.00	480000.00			
Acenaphthene	UG/KG	1 / 5	1733.333	1733.33 - 1733.33	470000.00			
Acetone	UG/KG	2 / 3	17.500	11.00 - 24.00	780000.00			
Anthracene	UG/KG	1 / 5	39.000	39.00 - 39.00	2300000.00			
Arsenic	MG/KG	4 / 8	2.300	1.20 - 3.60	0.37	4	14.81	
Barium	MG/KG	4 / 8	53.175	25.00 - 114.00	550.00		40.33	2
Benzene	UG/KG	1 / 5	52.500	52.50 - 52.50	22000.00			
Benzo(a)anthracene	UG/KG	2 / 5	110.000	80.00 - 140.00	880.00			
Butylbenzylphthalate	UG/KG	1 / 5	100.000	100.00 - 100.00	1600000.00			
Cadmium	MG/KG	3 / 8	0.893	0.73 - 1.20	3.90		1.05	1
Chlorobenzene	UG/KG	1 / 5	50.000	50.00 - 50.00	160000.00			
Chrysene	UG/KG	2 / 5	165.000	150.00 - 180.00	88000.00			
Copper	MG/KG	7 / 8	17.914	5.20 - 44.30	290.00		27.60	1
Di-n-butylphthalate	UG/KG	2 / 5	449.250	38.50 - 860.00	780000.00			
Di-n-octylphthalate	UG/KG	1 / 5	70.000	70.00 - 70.00	160000.00			
Diethylphthalate	UG/KG	1 / 5	140.000	140.00 - 140.00	6300000.00			
Diphenylamine	UG/KG	1 / 5	130.000	130.00 - 130.00	200000.00			

Table
Chemicals Detected at Site 518
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Endrin	UG/KG	1 / 1	30.000	30.00 - 30.00	2300.00			
Fluoranthene	UG/KG	3 / 5	770.000	240.00 - 1800.00	310000.00			
Fluorene	UG/KG	1 / 5	40.000	40.00 - 40.00	310000.00			
Heptachlor	UG/KG	1 / 2	8.000	8.00 - 8.00	140.00			
Iron	MG/KG	4 / 8	3260.000	2470.00 - 3800.00			30910.00	
Manganese	MG/KG	4 / 8	41.625	22.80 - 58.10	39.00	3	636.40	
Mercury	MG/KG	2 / 8	0.335	0.13 - 0.54	2.30		0.49	1
N-Nitrosodiphenylamine	UG/KG	1 / 5	130.000	130.00 - 130.00	130000.00			
Nickel	MG/KG	2 / 8	4.650	4.30 - 5.00	160.00		33.38	
Pentachlorophenol	UG/KG	1 / 5	2675.000	2675.00 - 2675.00	5300.00			
Phenanthrene	UG/KG	2 / 5	162.000	84.00 - 240.00	310000.00[k]			
Phenol	UG/KG	1 / 5	4233.333	4233.33 - 4233.33	4700000.00			
Pyrene	UG/KG	3 / 5	781.666	240.00 - 1675.00	230000.00			
Toluene	UG/KG	4 / 5	11.375	1.00 - 38.50	1600000.00			
Total Hepta-Dioxins	NG/KG	1 / 1	156.142	156.14 - 156.14				
Total Hepta-Furans	NG/KG	1 / 1	2625.873	2625.87 - 2625.87				
Total Hexa-Dioxins	NG/KG	1 / 1	22.846	22.84 - 22.84				
Total Hexa-Furans	NG/KG	1 / 1	254.164	254.16 - 254.16				
Total Pental-Furans	NG/KG	1 / 1	17.909	17.90 - 17.90				
Trichloroethene	UG/KG	1 / 5	54.666	54.66 - 54.66	47000.00			
Vanadium	MG/KG	4 / 8	8.750	5.80 - 10.80	55.00		77.38	
bis(2-Ethylhexyl)phthalate	UG/KG	2 / 5	700.000	490.00 - 910.00	46000.00			
delta-BHC	UG/KG	1 / 3	0.270	0.27 - 0.27	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 5	13.000	13.00 - 13.00	490.00			
u36088229	?	1 / 1	21.370	21.37 - 21.37				
u41903575	?	1 / 1	6.550	6.55 - 6.55				
u87616	?	1 / 5	2350.000	2350.00 - 2350.00				

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- k Fluoranthene used as surrogate
- l gamma-BHC (Lindane) used as surrogate

Table
Chemicals Detected at Site 518
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Chlordane	UG/KG	1 / 5	1800.000	1800.00 - 1800.00	470.00	1		
4,4'-DDT	UG/KG	1 / 4	3.200	3.20 - 3.20	1900.00			
Acetone	UG/KG	4 / 4	27.750	10.00 - 48.00	780000.00			
Copper	MG/KG	1 / 5	4.000	4.00 - 4.00	290.00		31.62	
Di-n-butylphthalate	UG/KG	1 / 5	40.000	40.00 - 40.00	780000.00			
Endrin aldehyde	UG/KG	1 / 4	0.270	0.27 - 0.27	2300.00[h]			

Table
Chemicals Detected at Site 519
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDE	UG/KG	2 / 2	113.500	17.00 - 210.00	1900.00			
4,4'-DDT	UG/KG	1 / 3	73.000	73.00 - 73.00	1900.00			
Barium	MG/KG	2 / 5	29.500	26.60 - 32.40	550.00		40.33	
Calcium	MG/KG	5 / 5	2184.600	913.00 - 3190.00				
Di-n-butylphthalate	UG/KG	1 / 5	49.000	49.00 - 49.00	780000.00			
Hexavalent Chromium	MG/KG	1 / 1	1.190	1.19 - 1.19				
Iron	MG/KG	5 / 5	2546.000	2350.00 - 2810.00			30910.00	
Petroleum Hydrocarbons,		4 / 5	52.850	15.20 - 135.00				
Vinyl acetate	UG/KG	1 / 5	8.000	8.00 - 8.00	7800000.00			
Zinc	MG/KG	5 / 5	10.380	7.60 - 14.10	2300.00		214.30	

Notes:

Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 519
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDT	UG/KG	2 / 6	0.775	0.59 - 0.96	1900.00			
Calcium	MG/KG	3 / 6	1052.000	607.00 - 1840.00				
Iron	MG/KG	6 / 6	2233.333	1760.00 - 2730.00			66170.00	
Petroleum Hydrocarbons,		4 / 4	34.625	15.20 - 47.70				
Vinyl acetate	UG/KG	1 / 6	11.000	11.00 - 11.00	7800000.00			
Zinc	MG/KG	6 / 6	5.100	3.70 - 6.80	2300.00		129.60	

Table
Chemicals Detected at Site 520
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Chlordane	UG/KG	1 / 5	1120.000	1120.00 - 1120.00	470.00	1		
Aluminum	MG/KG	3 / 6	4743.333	4540.00 - 4960.00	7900.00		25310.00	
Benzo(a)anthracene	UG/KG	1 / 6	170.000	170.00 - 170.00	880.00			
Calcium	MG/KG	3 / 6	3253.333	1680.00 - 6250.00				
Chromium	MG/KG	3 / 6	3.933	3.60 - 4.30	39.00		85.65	
Chrysene	UG/KG	1 / 6	170.000	170.00 - 170.00	88000.00			
Cobalt	MG/KG	2 / 6	8.400	6.50 - 10.30	470.00		5.86	2
Copper	MG/KG	3 / 6	4.366	3.40 - 5.90	290.00		27.60	
Di-n-butylphthalate	UG/KG	1 / 6	45.000	45.00 - 45.00	780000.00			
Dieldrin	UG/KG	1 / 4	8.400	8.40 - 8.40	40.00			
Endosulfan II	UG/KG	2 / 4	4.050	3.80 - 4.30	47000.00			
Endrin aldehyde	UG/KG	1 / 3	1.900	1.90 - 1.90	2300.00[h]			
Fluoranthene	UG/KG	1 / 6	280.000	280.00 - 280.00	310000.00			
Heptachlor	UG/KG	3 / 5	3.866	1.40 - 8.50	140.00			
Iron	MG/KG	3 / 6	1983.333	1920.00 - 2090.00			30910.00	
Lead	MG/KG	3 / 6	5.533	2.50 - 8.70	400.00[j]		118.00	
Manganese	MG/KG	3 / 6	17.966	15.20 - 19.80	39.00		636.40	
Phenanthrene	UG/KG	1 / 6	120.000	120.00 - 120.00	310000.00[k]			
Pyrene	UG/KG	1 / 6	200.000	200.00 - 200.00	230000.00			
Zinc	MG/KG	3 / 6	7.933	4.80 - 11.20	2300.00		214.30	

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- h Endrin used as surrogate
- j Based on proposed action level for soil and treatment technique action i for water
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 520
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	1 / 1	1.002	1.00 - 1.00	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	1.221	1.22 - 1.22	430.00[c]			
123678-HxCDF	PG/G	1 / 1	0.254	0.25 - 0.25	43.00[c]			
Aluminum	MG/KG	3 / 5	2873.333	2050.00 - 3960.00	7900.00		46180.00	
Calcium	MG/KG	2 / 5	1206.000	952.00 - 1460.00				
Chromium	MG/KG	3 / 5	3.300	2.40 - 4.30	39.00		83.86	
Cobalt	MG/KG	1 / 5	6.600	6.60 - 6.60	470.00		14.88	
Endosulfan II	UG/KG	3 / 5	4.000	3.70 - 4.30	47000.00			
Iron	MG/KG	3 / 5	1093.333	980.00 - 1180.00			66170.00	
Lead	MG/KG	3 / 5	2.100	1.80 - 2.60	400.00[j]		68.69	
Manganese	MG/KG	3 / 5	9.033	8.30 - 9.60	39.00		1412.00	
OCDD	PG/G	1 / 1	4.380	4.38 - 4.38	4300.00[c]			
OCDF	PG/G	1 / 1	2.322	2.32 - 2.32	4300.00[c]			
Zinc	MG/KG	3 / 5	2.733	2.40 - 2.90	2300.00		129.60	

Table
Chemicals Detected at Site 523
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDD	UG/KG	1 / 1	1.400	1.40 - 1.40	2700.00			
4,4'-DDE	UG/KG	1 / 1	14.000	14.00 - 14.00	1900.00			
4,4'-DDT	UG/KG	1 / 1	22.000	22.00 - 22.00	1900.00			
Aluminum	MG/KG	2 / 2	4835.000	4760.00 - 4910.00	7900.00		25310.00	
Barium	MG/KG	1 / 2	34.700	34.70 - 34.70	550.00		40.33	
Benzo(a)anthracene	UG/KG	1 / 2	130.000	130.00 - 130.00	880.00			
Benzo(g,h,i)perylene	UG/KG	1 / 2	43.000	43.00 - 43.00	310000.00[f]			
Benzo(k)fluoranthene	UG/KG	1 / 2	240.000	240.00 - 240.00	8800.00			
Calcium	MG/KG	2 / 2	3150.000	2450.00 - 3850.00				
Chromium	MG/KG	2 / 2	32.100	5.00 - 59.20	39.00	1	85.65	
Chrysene	UG/KG	1 / 2	130.000	130.00 - 130.00	88000.00			
Endosulfan I	UG/KG	1 / 1	0.110	0.11 - 0.11	47000.00			
Fluoranthene	UG/KG	2 / 2	120.500	61.00 - 180.00	310000.00			
Indeno(1,2,3-cd)pyrene	UG/KG	1 / 2	48.000	48.00 - 48.00	880.00			
Iron	MG/KG	2 / 2	3045.000	2570.00 - 3520.00			30910.00	
Magnesium	MG/KG	1 / 2	1460.000	1460.00 - 1460.00			9592.00	
Manganese	MG/KG	2 / 2	29.450	24.50 - 34.40	39.00		636.40	
Mercury	MG/KG	1 / 2	0.250	0.25 - 0.25	2.30		0.49	
Nickel	MG/KG	1 / 2	6.000	6.00 - 6.00	160.00		33.38	
Petroleum Hydrocarbons,		2 / 2	280.000	239.00 - 321.00				
Phenanthrene	UG/KG	1 / 2	83.000	83.00 - 83.00	310000.00[k]			
Pyrene	UG/KG	2 / 2	111.000	52.00 - 170.00	230000.00			
Vanadium	MG/KG	1 / 2	8.100	8.10 - 8.10	55.00		77.38	

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- f Fluoranthene used as surrogate
- k Fluoranthene used as surrogate

Table
Chemicals Detected at Site 523
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	1 / 1	1.728	1.72 - 1.72	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	3.591	3.59 - 3.59	430.00[c]			
123789-HxCDF	PG/G	1 / 1	0.643	0.64 - 0.64	43.00[c]			
Aluminum	MG/KG	1 / 1	6150.000	6150.00 - 6150.00	7900.00		46180.00	
Chromium	MG/KG	1 / 1	3.800	3.80 - 3.80	39.00		83.86	
Di-n-butylphthalate	UG/KG	1 / 1	50.000	50.00 - 50.00	780000.00			
Iron	MG/KG	1 / 1	1220.000	1220.00 - 1220.00			66170.00	
Manganese	MG/KG	1 / 1	6.300	6.30 - 6.30	39.00		1412.00	
OCDD	PG/G	1 / 1	12.067	12.06 - 12.06	4300.00[c]			
OCDF	PG/G	1 / 1	8.565	8.56 - 8.56	4300.00[c]			
Petroleum Hydrocarbons,		1 / 1	107.000	107.00 - 107.00				
alpha-BHC	UG/KG	1 / 1	0.008	0.00 - 0.00	100.00			
beta-BHC	UG/KG	1 / 1	0.160	0.16 - 0.16	350.00			

Table
Chemicals Detected at Site 510
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Acetone	UG/L	1 / 2	18.000	18.00 - 18.00	370.00			
Methylene chloride	UG/L	1 / 1	3.000	3.00 - 3.00	4.10			

Notes:

* etained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 199

Table
Chemicals Detected at Site 523
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	UG/L	2 / 2	10650.000	10600.00 - 10700.00	73.00	1		
123789-HxCDF	PG/L	1 / 1	3.789	3.78 - 3.78	5.00[c]			
Arsenic	UG/L	2 / 2	15.750	14.90 - 16.60	0.03	1	27.99	
Iron	UG/L	1 / 1	21000.000	21000.00 - 21000.00				
Total Hexa-Furans		1 / 1	3.789	3.78 - 3.78				

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC

Table
Chemicals Detected at Site GDC
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 3	45.000	45.00 - 45.00	0.04	1		
* Benzene	UG/L	1 / 3	51.000	51.00 - 51.00	0.34	1		
* Chlorobenzene	UG/L	2 / 4	48.500	48.00 - 49.00	3.90	1		
* Nickel	UG/L	1 / 1	9640.000	9640.00 - 9640.00	73.00	1		
* Trichloroethene	UG/L	1 / 3	51.000	51.00 - 51.00	1.60	1		
4,4'-DDD	UG/L	1 / 1	0.016	0.01 - 0.01	0.28			
Calcium	UG/L	1 / 1	128000.000	128000.00 - 128000.00				
Iron	UG/L	1 / 1	3480.000	3480.00 - 3480.00				
Magnesium	UG/L	1 / 1	7710.000	7710.00 - 7710.00				
Manganese	UG/L	1 / 1	527.000	527.00 - 527.00	18.00	1	6085.00	
Parathion	UG/L	1 / 1	0.170	0.17 - 0.17	22.00			
Potassium	UG/L	1 / 1	5380.000	5380.00 - 5380.00				
Toluene	UG/L	2 / 4	52.000	50.00 - 54.00	75.00			
u14808798	?	1 / 1	97.500	97.50 - 97.50				
u16887006	?	1 / 1	11.200	11.20 - 11.20				
u9999900072	?	1 / 1	505.000	505.00 - 505.00				

Notes:

Retained as a chemical of potential concern
USEPA Region III Residential Risk-Based Screening Value, March

Table
Chemicals Detected at Site 012
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 123478-HxCDD	PG/G	1 / 2	100.910	100.91 - 100.91	43.00[c]	1		
* 123478-HxCDF	PG/G	1 / 2	146.100	146.10 - 146.10	43.00[c]	1		
* 1234789-HpCDF	PG/G	1 / 2	126.470	126.47 - 126.47	43.00[c]	1		
* 123678-HxCDD	PG/G	1 / 2	141.010	141.01 - 141.01	43.00[c]	1		
* 123678-HxCDF	PG/G	1 / 2	186.230	186.23 - 186.23	43.00[c]	1		
* 12378-PeCDD	PG/G	1 / 2	127.220	127.22 - 127.22	8.60[c]	1		
* 12378-PeCDF	PG/G	1 / 2	143.310	143.31 - 143.31	86.00[c]	1		
* 123789-HxCDD	PG/G	1 / 2	118.520	118.52 - 118.52	43.00[c]	1		
* 123789-HxCDF	PG/G	1 / 2	171.230	171.23 - 171.23	43.00[c]	1		
* 234678-HxCDF	PG/G	1 / 2	176.360	176.36 - 176.36	43.00[c]	1		
* 23478-PeCDF	PG/G	1 / 2	145.520	145.52 - 145.52	8.60[c]	1		
* 2378-TCDD	PG/G	1 / 2	23.866	23.86 - 23.86	4.30	1		
* Dieldrin	UG/KG	2 / 6	38.750	2.00 - 75.50	40.00	1		
* Disulfoton	UG/KG	1 / 2	2050.000	2050.00 - 2050.00	310.00	1		
* Nickel	MG/KG	12 / 12	699.525	12.40 - 1076.95	160.00	11	33.38	11
* Phorate	UG/KG	1 / 2	2200.000	2200.00 - 2200.00	1600.00	1		
1234678-HpCDD	PG/G	2 / 2	47.386	11.29 - 83.47	430.00[c]			
1234678-HpCDF	PG/G	1 / 2	75.096	75.09 - 75.09	430.00[c]			
2-Butanone (MEK)	UG/KG	2 / 12	12.000	11.00 - 13.00	4700000.00			
2378-TCDF	PG/G	1 / 2	28.101	28.10 - 28.10	43.00[c]			
4,4'-DDD	UG/KG	1 / 5	0.520	0.52 - 0.52	2700.00			
4,4'-DDT	UG/KG	2 / 6	19.600	1.20 - 38.00	1900.00			
Acetone	UG/KG	9 / 12	34.166	9.00 - 67.00	780000.00			
Aldrin	UG/KG	2 / 7	13.310	0.12 - 26.50	38.00			
Aluminum	MG/KG	12 / 12	8189.166	3020.00 - 17900.00	7900.00	4	25310.00	
Arsenic	MG/KG	12 / 12	7.512	3.70 - 14.20	0.37	12	14.81	
Benzo(a)anthracene	UG/KG	1 / 12	60.000	60.00 - 60.00	880.00			
Benzo(b)fluoranthene	UG/KG	1 / 12	90.000	90.00 - 90.00	880.00			
Benzo(k)fluoranthene	UG/KG	1 / 12	110.000	110.00 - 110.00	8800.00			
Chrysene	UG/KG	2 / 12	74.500	65.00 - 84.00	88000.00			
Copper	MG/KG	12 / 12	15.187	10.60 - 27.70	290.00		27.60	1
Endosulfan I	UG/KG	3 / 9	2.893	0.67 - 7.30	47000.00			
Endosulfan II	UG/KG	2 / 10	3.360	0.17 - 6.55	47000.00			
Endosulfan sulfate	UG/KG	1 / 10	0.980	0.98 - 0.98	47000.00[g]			
Endrin	UG/KG	2 / 8	35.020	0.54 - 69.50	2300.00			

Table
Chemicals Detected at Site 012
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Endrin aldehyde	UG/KG	1 / 8	1.800	1.80 - 1.80	2300.00[h]			
Famphur	UG/KG	1 / 12	2150.000	2150.00 - 2150.00				
Fluoranthene	UG/KG	2 / 12	77.500	76.00 - 79.00	310000.00			
Heptachlor	UG/KG	1 / 6	8.400	8.40 - 8.40	140.00			
Hexavalent Chromium	MG/KG	1 / 2	0.010	0.01 - 0.01				
Iron	MG/KG	12 / 12	6584.583	3040.00 - 14900.00			30910.00	
Lead	MG/KG	12 / 12	8.016	1.80 - 19.30	400.00[j]		118.00	
OCDD	PG/G	2 / 2	214.460	117.69 - 311.22	4300.00[c]			
OCDF	PG/G	2 / 2	53.558	4.72 - 102.38	4300.00[c]			
Parathion	UG/KG	1 / 2	2050.000	2050.00 - 2050.00	47000.00			
Potassium	MG/KG	12 / 12	1143.500	728.00 - 1630.00				
Pyrene	UG/KG	2 / 12	60.000	60.00 - 60.00	230000.00			
Selenium	MG/KG	12 / 12	1.424	0.99 - 1.80	39.00		2.00	
Sulfotepp	UG/KG	1 / 2	2100.000	2100.00 - 2100.00	3900.00			
Tetrabutyltin	UG/KG	2 / 12	257.065	197.90 - 316.23				
Toluene	UG/KG	9 / 12	8.833	2.00 - 27.00	1600000.00			
Vanadium	MG/KG	12 / 12	21.233	12.90 - 34.90	55.00		77.38	
delta-BHC	UG/KG	1 / 11	0.880	0.88 - 0.88	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 11	26.000	26.00 - 26.00	490.00			

Table
Chemicals Detected at Site 014
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	MG/KG	1 / 1	9810.000	9810.00 - 9810.00	160.00	1	33.38	1
Aluminum	MG/KG	1 / 1	10200.000	10200.00 - 10200.00	7900.00	1	25310.00	

Table
Chemicals Detected at Site 015
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	MG/KG	1 / 1	11000.000	11000.00 - 11000.00	160.00	1	33.38	1
Aluminum	MG/KG	1 / 1	3470.000	3470.00 - 3470.00	7900.00		25310.00	

Table
Chemicals Detected at Site 016
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Aluminum	MG/KG	1 / 1	117.000	117.00 - 117.00	7900.00		25310.00	

Table
Chemicals Detected at Site 671
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)anthracene	UG/KG	1 / 8	2200.000	2200.00 - 2200.00	880.00	1		
* Benzo(a)pyrene	UG/KG	1 / 8	967.500	967.50 - 967.50	88.00	1		
* Dibenzo(a,h)anthracene	UG/KG	1 / 8	195.000	195.00 - 195.00	88.00	1		
* Disulfoton	UG/KG	1 / 2	1300.000	1300.00 - 1300.00	310.00	1		
* N-Nitroso-di-n-propylami	UG/KG	2 / 8	2148.333	1750.00 - 2546.66	91.00	2		
* N-Nitrosodimethylamine	UG/KG	1 / 8	54.000	54.00 - 54.00	13.00	1		
* Pentachlorophenol	UG/KG	2 / 8	4750.000	3450.00 - 6050.00	5300.00	1		
1,1-Dichloroethene	UG/KG	1 / 8	55.500	55.50 - 55.50	1100.00			
1,2,4-Trichlorobenzene	UG/KG	2 / 8	3175.000	2250.00 - 4100.00	78000.00			
1,4-Dichlorobenzene	UG/KG	2 / 8	2975.000	2000.00 - 3950.00	27000.00			
1-Methyl napthalene		1 / 8	129.666	129.66 - 129.66				
1234678-HpCDD	PG/G	2 / 2	16.616	11.25 - 21.97	430.00[c]			
1234678-HpCDF	PG/G	1 / 2	8.344	8.34 - 8.34	430.00[c]			
123478-HxCDF	PG/G	1 / 2	3.498	3.49 - 3.49	43.00[c]			
123789-HxCDD	PG/G	1 / 2	2.412	2.41 - 2.41	43.00[c]			
2,4-Dinitrotoluene	UG/KG	2 / 8	2825.000	1650.00 - 4000.00	16000.00			
2-Chlorophenol	UG/KG	1 / 8	4150.000	4150.00 - 4150.00	39000.00			
2-Methylnaphthalene	UG/KG	1 / 8	91.000	91.00 - 91.00	310000.00[i]			
234678-HxCDF	PG/G	1 / 2	1.869	1.86 - 1.86	43.00[c]			
4,4'-DDD	UG/KG	3 / 4	14.933	5.80 - 26.00	2700.00			
4,4'-DDE	UG/KG	6 / 6	244.700	3.70 - 490.00	1900.00			
4,4'-DDT	UG/KG	1 / 3	16.000	16.00 - 16.00	1900.00			
4-Chloro-3-methylphenol	UG/KG	1 / 8	4300.000	4300.00 - 4300.00				
4-Nitrophenol	UG/KG	1 / 8	3700.000	3700.00 - 3700.00	480000.00			
Acenaphthene	UG/KG	2 / 8	2318.750	1650.00 - 2987.50	470000.00			
Acenaphthylene	UG/KG	1 / 8	150.000	150.00 - 150.00	470000.00[e]			
Acetone	UG/KG	3 / 7	26.666	21.00 - 31.00	780000.00			
Acetonitrile	UG/KG	1 / 8	130.000	130.00 - 130.00	47000.00			
Aldrin	UG/KG	2 / 7	11.245	0.99 - 21.50	38.00			
Anthracene	UG/KG	1 / 8	3080.000	3080.00 - 3080.00	2300000.00			
Arsenic	MG/KG	1 / 7	7.800	7.80 - 7.80	0.37	1	14.81	
Benzene	UG/KG	1 / 8	93.500	93.50 - 93.50	22000.00			
Benzo(g,h,i)perylene	UG/KG	1 / 8	410.000	410.00 - 410.00	310000.00[f]			
Beryllium	MG/KG	1 / 6	0.720	0.72 - 0.72	0.15	1	1.47	
Chlorobenzene	UG/KG	1 / 8	92.500	92.50 - 92.50	160000.00			

Table
Chemicals Detected at Site 671
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Chromium	MG/KG	4 / 7	15.437	10.60 - 20.55	39.00		85.65	
Chrysene	UG/KG	1 / 8	2002.500	2002.50 - 2002.50	88000.00			
Copper	MG/KG	7 / 7	13.392	4.10 - 33.95	290.00		27.60	1
Di-n-butylphthalate	UG/KG	3 / 8	142.666	98.00 - 230.00	780000.00			
Dibenzofuran	UG/KG	1 / 8	1312.500	1312.50 - 1312.50	31000.00			
Dieldrin	UG/KG	1 / 7	0.530	0.53 - 0.53	40.00			
Endosulfan I	UG/KG	1 / 4	0.305	0.30 - 0.30	47000.00			
Endosulfan II	UG/KG	1 / 6	0.730	0.73 - 0.73	47000.00			
Endrin	UG/KG	1 / 5	60.500	60.50 - 60.50	2300.00			
Endrin aldehyde	UG/KG	1 / 4	0.275	0.27 - 0.27	2300.00[h]			
Fluoranthene	UG/KG	3 / 8	1601.000	38.00 - 4700.00	310000.00			
Fluorene	UG/KG	1 / 8	2405.000	2405.00 - 2405.00	310000.00			
Heptachlor	UG/KG	1 / 7	22.500	22.50 - 22.50	140.00			
Indeno(1,2,3-cd)pyrene	UG/KG	1 / 8	417.500	417.50 - 417.50	880.00			
Lead	MG/KG	1 / 7	28.300	28.30 - 28.30	400.00[j]		118.00	
Mercury	MG/KG	1 / 7	0.260	0.26 - 0.26	2.30		0.49	
Methyl parathion	UG/KG	1 / 2	1450.000	1450.00 - 1450.00	2000.00			
Naphthalene	UG/KG	1 / 8	60.333	60.33 - 60.33	310000.00			
Nickel	MG/KG	4 / 4	6.537	5.80 - 7.20	160.00		33.38	
OCDD	PG/G	2 / 2	170.948	83.03 - 258.86	4300.00[c]			
OCDF	PG/G	2 / 2	7.399	2.85 - 11.94	4300.00[c]			
Phenanthrene	UG/KG	1 / 8	5850.000	5850.00 - 5850.00	310000.00[k]			
Phenol	UG/KG	1 / 8	3950.000	3950.00 - 3950.00	4700000.00			
Potassium	MG/KG	5 / 7	830.400	607.00 - 1180.00				
Pyrene	UG/KG	3 / 8	2002.333	57.00 - 4300.00	230000.00			
Tetrabutyltin	UG/KG	3 / 4	49.386	5.88 - 117.20				
Tin	MG/KG	1 / 7	9.500	9.50 - 9.50	4700.00			
Toluene	UG/KG	5 / 6	4.700	2.00 - 13.00	1600000.00			
Trichloroethene	UG/KG	1 / 8	99.000	99.00 - 99.00	47000.00			
Vanadium	MG/KG	3 / 6	13.133	8.10 - 17.80	55.00		77.38	
beta-BHC	UG/KG	2 / 7	10.180	0.36 - 20.00	350.00			
gamma-BHC (Lindane)	UG/KG	1 / 7	24.000	24.00 - 24.00	490.00			

Table
Chemicals Detected at Site 671
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* N-Nitrosodimethylamine	UG/KG	1 / 9	52.000	52.00 - 52.00	13.00	1		
* Nickel	MG/KG	3 / 5	584.533	6.40 - 1740.00	160.00	1	29.90	1
1,2-Dichloropropane	UG/KG	2 / 9	2.500	2.00 - 3.00	9400.00			
4,4'-DDD	UG/KG	2 / 3	30.750	1.50 - 60.00	2700.00			
4,4'-DDE	UG/KG	2 / 2	82.700	5.40 - 160.00	1900.00			
4,4'-DDT	UG/KG	1 / 4	2.800	2.80 - 2.80	1900.00			
Acetone	UG/KG	2 / 8	34.500	33.00 - 36.00	780000.00			
Aldrin	UG/KG	1 / 7	0.430	0.43 - 0.43	38.00			
Beryllium	MG/KG	1 / 8	0.860	0.86 - 0.86	0.15	1	1.62	
Carbon disulfide	UG/KG	1 / 9	4.000	4.00 - 4.00	780000.00			
Chloroform	UG/KG	2 / 9	6.000	6.00 - 6.00	78000.00			
Chromium	MG/KG	3 / 8	23.400	19.10 - 26.50	39.00		83.86	
Copper	MG/KG	2 / 8	63.600	5.20 - 122.00	290.00		31.62	1
Di-n-butylphthalate	UG/KG	3 / 9	92.333	51.00 - 130.00	780000.00			
Dieldrin	UG/KG	1 / 5	0.690	0.69 - 0.69	40.00			
Endosulfan I	UG/KG	1 / 5	0.320	0.32 - 0.32	47000.00			
Endosulfan II	UG/KG	2 / 5	0.480	0.48 - 0.48	47000.00			
Fluoranthene	UG/KG	1 / 9	110.000	110.00 - 110.00	310000.00			
Methoxychlor	UG/KG	1 / 5	2.900	2.90 - 2.90	39000.00			
Potassium	MG/KG	5 / 8	1236.400	670.00 - 2210.00				
Pyrene	UG/KG	1 / 9	71.000	71.00 - 71.00	230000.00			
Tetrabutyltin	UG/KG	2 / 4	47.605	3.20 - 92.01				
Toluene	UG/KG	4 / 7	5.750	2.00 - 12.00	1600000.00			
Vanadium	MG/KG	2 / 8	24.200	21.70 - 26.70	55.00		131.60	
alpha-BHC	UG/KG	1 / 6	0.130	0.13 - 0.13	100.00			
beta-BHC	UG/KG	1 / 7	1.400	1.40 - 1.40	350.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 9	76.000	76.00 - 76.00	46000.00			
delta-BHC	UG/KG	1 / 6	0.550	0.55 - 0.55	490.00[1]			

Table
Chemicals Detected at Site 672
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	MG/KG	1 / 1	434.150	434.15 - 434.15	160.00	1	33.38	1
4,4'-DDE	UG/KG	3 / 4	53.333	21.00 - 88.00	1900.00			
4,4'-DDT	UG/KG	1 / 4	23.000	23.00 - 23.00	1900.00			
Acetone	UG/KG	1 / 4	100.000	100.00 - 100.00	780000.00			
Aldrin	UG/KG	1 / 3	0.330	0.33 - 0.33	38.00			
Chromium	MG/KG	1 / 1	25.200	25.20 - 25.20	39.00		85.65	
Copper	MG/KG	1 / 1	12.000	12.00 - 12.00	290.00		27.60	
Di-n-butylphthalate	UG/KG	4 / 4	131.750	86.00 - 240.00	780000.00			
Potassium	MG/KG	1 / 1	1040.000	1040.00 - 1040.00				
Pyrene	UG/KG	1 / 4	61.000	61.00 - 61.00	230000.00			
Vanadium	MG/KG	1 / 1	20.400	20.40 - 20.40	55.00		77.38	
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 4	240.000	240.00 - 240.00	46000.00			

Table
Chemicals Detected at Site 672
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Acetone	UG/KG	2 / 3	27.500	27.00 - 28.00	780000.00			
Chromium	MG/KG	1 / 1	6.800	6.80 - 6.80	39.00		83.86	
Di-n-butylphthalate	UG/KG	3 / 4	104.000	71.00 - 150.00	780000.00			
Methoxychlor	UG/KG	1 / 2	2.400	2.40 - 2.40	39000.00			

Table
Chemicals Detected at Site 673
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1,1-Dichloroethene	UG/KG	1 / 6	48.500	48.50 - 48.50	1100.00			
4,4'-DDD	UG/KG	4 / 5	13.625	6.20 - 28.00	2700.00			
4,4'-DDE	UG/KG	6 / 6	66.483	5.40 - 210.00	1900.00			
4,4'-DDT	UG/KG	6 / 6	48.500	2.50 - 220.00	1900.00			
Acetone	UG/KG	4 / 6	109.666	52.00 - 150.00	780000.00			
Benzene	UG/KG	1 / 6	78.500	78.50 - 78.50	22000.00			
Chlorobenzene	UG/KG	1 / 6	78.000	78.00 - 78.00	160000.00			
Chromium	MG/KG	1 / 1	23.600	23.60 - 23.60	39.00		85.65	
Copper	MG/KG	1 / 1	6.200	6.20 - 6.20	290.00		27.60	
Di-n-butylphthalate	UG/KG	1 / 4	66.000	66.00 - 66.00	780000.00			
Dieldrin	UG/KG	2 / 4	0.335	0.21 - 0.46	40.00			
Endosulfan I	UG/KG	2 / 4	0.425	0.25 - 0.60	47000.00			
Endosulfan II	UG/KG	2 / 4	0.532	0.34 - 0.72	47000.00			
Endosulfan sulfate	UG/KG	1 / 2	1.100	1.10 - 1.10	47000.00[g]			
Endrin	UG/KG	1 / 2	52.110	52.11 - 52.11	2300.00			
Fluoranthene	UG/KG	1 / 6	88.000	88.00 - 88.00	310000.00			
Heptachlor epoxide	UG/KG	1 / 3	0.780	0.78 - 0.78	70.00			
Nickel	MG/KG	1 / 1	8.100	8.10 - 8.10	160.00		33.38	
OCDD	PG/G	2 / 2	6.146	5.78 - 6.51	4300.00[c]			
Phenanthrene	UG/KG	1 / 6	83.000	83.00 - 83.00	310000.00[k]			
Potassium	MG/KG	1 / 1	727.000	727.00 - 727.00				
Pyrene	UG/KG	1 / 6	53.000	53.00 - 53.00	230000.00			
Toluene	UG/KG	4 / 5	17.125	4.00 - 52.50	1600000.00			
Trichloroethene	UG/KG	1 / 6	84.500	84.50 - 84.50	47000.00			
Vanadium	MG/KG	1 / 1	17.200	17.20 - 17.20	55.00		77.38	
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 6	59.000	59.00 - 59.00	46000.00			
delta-BHC	UG/KG	1 / 3	0.570	0.57 - 0.57	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 6	28.000	28.00 - 28.00	490.00			

Table
Chemicals Detected at Site 673
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDD	UG/KG	1 / 1	4.400	4.40 - 4.40	2700.00			
4,4'-DDE	UG/KG	2 / 2	4.500	3.80 - 5.20	1900.00			
4,4'-DDT	UG/KG	1 / 2	3.400	3.40 - 3.40	1900.00			
Acetone	UG/KG	1 / 2	65.000	65.00 - 65.00	780000.00			
Dieldrin	UG/KG	1 / 1	0.380	0.38 - 0.38	40.00			
Endrin aldehyde	UG/KG	1 / 1	0.450	0.45 - 0.45	2300.00[h]			
Fluoranthene	UG/KG	1 / 2	190.000	190.00 - 190.00	310000.00			
Pyrene	UG/KG	1 / 2	130.000	130.00 - 130.00	230000.00			
Toluene	UG/KG	1 / 2	3.000	3.00 - 3.00	1600000.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 2	120.000	120.00 - 120.00	46000.00			

Table
Chemicals Detected at Site 675
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Barium	MG/KG	1 / 1	25.700	25.70 - 25.70	550.00		40.33	
Chromium	MG/KG	1 / 1	70.500	70.50 - 70.50	39.00	1	85.65	
Copper	MG/KG	1 / 1	26.600	26.60 - 26.60	290.00		27.60	
Endosulfan sulfate	UG/KG	1 / 2	0.320	0.32 - 0.32	47000.00[g]			
Lead	MG/KG	1 / 1	6.400	6.40 - 6.40	400.00[j]		118.00	
Nickel	MG/KG	1 / 1	11.900	11.90 - 11.90	160.00		33.38	
Potassium	MG/KG	1 / 1	856.000	856.00 - 856.00				
Toluene	UG/KG	1 / 2	3.000	3.00 - 3.00	1600000.00			
beta-BHC	UG/KG	1 / 2	1.300	1.30 - 1.30	350.00			

Table
Chemicals Detected at Site 676
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
1234678-HpCDD	PG/G	2 / 2	70.179	44.77 - 95.58	430.00[c]			
1234678-HpCDF	PG/G	2 / 2	9.520	7.60 - 11.43	430.00[c]			
123478-HxCDF	PG/G	1 / 2	2.063	2.06 - 2.06	43.00[c]			
123678-HxCDF	PG/G	1 / 2	0.837	0.83 - 0.83	43.00[c]			
123789-HxCDD	PG/G	1 / 2	0.920	0.92 - 0.92	43.00[c]			
234678-HxCDF	PG/G	1 / 2	0.863	0.86 - 0.86	43.00[c]			
4,4'-DDT	UG/KG	1 / 1	0.310	0.31 - 0.31	1900.00			
Barium	MG/KG	1 / 1	25.400	25.40 - 25.40	550.00		40.33	
Benzo(a)anthracene	UG/KG	1 / 2	41.000	41.00 - 41.00	880.00			
Beryllium	MG/KG	2 / 2	0.800	0.62 - 0.98	0.15	2	1.47	
Chromium	MG/KG	1 / 1	21.700	21.70 - 21.70	39.00		85.65	
Chrysene	UG/KG	1 / 2	44.000	44.00 - 44.00	88000.00			
Copper	MG/KG	2 / 2	13.175	10.45 - 15.90	290.00		27.60	
Dieldrin	UG/KG	1 / 1	0.750	0.75 - 0.75	40.00			
Fluoranthene	UG/KG	1 / 2	51.000	51.00 - 51.00	310000.00			
Hexavalent Chromium	MG/KG	1 / 2	0.426	0.42 - 0.42				
Lead	MG/KG	1 / 1	46.600	46.60 - 46.60	400.00[j]		118.00	
Nickel	MG/KG	2 / 2	17.875	13.05 - 22.70	160.00		33.38	
OCDD	PG/G	2 / 2	662.690	399.06 - 926.32	4300.00[c]			
OCDF	PG/G	2 / 2	16.151	10.75 - 21.54	4300.00[c]			
Pyrene	UG/KG	1 / 2	42.000	42.00 - 42.00	230000.00			
Toluene	UG/KG	2 / 2	3.500	1.00 - 6.00	1600000.00			

Table
Chemicals Detected at Site 676
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
4,4'-DDT	UG/KG	1 / 2	71.000	71.00 - 71.00	1900.00			
Acetone	UG/KG	1 / 2	17.000	17.00 - 17.00	780000.00			
Benzo(a)anthracene	UG/KG	1 / 2	53.000	53.00 - 53.00	880.00			
Beryllium	MG/KG	2 / 2	0.770	0.65 - 0.89	0.15	2	1.62	
Chromium	MG/KG	1 / 2	28.500	28.50 - 28.50	39.00		83.86	
Chrysene	UG/KG	1 / 2	62.000	62.00 - 62.00	88000.00			
Copper	MG/KG	2 / 2	8.800	8.40 - 9.20	290.00		31.62	
Fluoranthene	UG/KG	2 / 2	92.000	34.00 - 150.00	310000.00			
Lead	MG/KG	1 / 2	10.900	10.90 - 10.90	400.00[j]		68.69	
Nickel	MG/KG	2 / 2	10.650	10.60 - 10.70	160.00		29.90	
Potassium	MG/KG	2 / 2	1540.000	1290.00 - 1790.00				
Pyrene	UG/KG	2 / 2	82.500	35.00 - 130.00	230000.00			
Toluene	UG/KG	1 / 2	19.000	19.00 - 19.00	1600000.00			

Table
Chemicals Detected at Site 677
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	1 / 9	330.000	330.00 - 330.00	88.00	1		
* Nickel	MG/KG	2 / 2	159.025	7.30 - 310.75	160.00	1	33.38	1
1-Methyl napthalene		1 / 9	210.000	210.00 - 210.00				
1234678-HpCDD	PG/G	1 / 1	45.920	45.92 - 45.92	430.00[c]			
1234678-HpCDF	PG/G	1 / 1	16.634	16.63 - 16.63	430.00[c]			
2-Methylnaphthalene	UG/KG	1 / 9	200.000	200.00 - 200.00	310000.00[i]			
4,4'-DDD	UG/KG	1 / 4	36.000	36.00 - 36.00	2700.00			
4,4'-DDE	UG/KG	1 / 3	9.200	9.20 - 9.20	1900.00			
4,4'-DDT	UG/KG	1 / 6	1.900	1.90 - 1.90	1900.00			
Acenaphthene	UG/KG	2 / 9	104.500	99.00 - 110.00	470000.00			
Acetone	UG/KG	3 / 8	52.000	32.00 - 72.00	780000.00			
Acetonitrile	UG/KG	1 / 3	100.000	100.00 - 100.00	47000.00			
Anthracene	UG/KG	1 / 9	110.000	110.00 - 110.00	2300000.00			
Benzo(a)anthracene	UG/KG	1 / 9	720.000	720.00 - 720.00	880.00			
Benzo(b)fluoranthene	UG/KG	1 / 9	670.000	670.00 - 670.00	880.00			
Benzo(k)fluoranthene	UG/KG	1 / 9	840.000	840.00 - 840.00	8800.00			
Cadmium	MG/KG	1 / 9	0.720	0.72 - 0.72	3.90		1.05	
Chromium	MG/KG	2 / 9	47.450	31.20 - 63.70	39.00	1	85.65	
Chrysene	UG/KG	2 / 9	343.500	47.00 - 640.00	88000.00			
Copper	MG/KG	6 / 9	6.600	3.00 - 14.50	290.00		27.60	
Di-n-butylphthalate	UG/KG	1 / 9	35.000	35.00 - 35.00	780000.00			
Dieldrin	UG/KG	1 / 7	0.110	0.11 - 0.11	40.00			
Endrin	UG/KG	1 / 4	0.410	0.41 - 0.41	2300.00			
Endrin aldehyde	UG/KG	1 / 3	1.600	1.60 - 1.60	2300.00[h]			
Fluoranthene	UG/KG	2 / 9	520.500	41.00 - 1000.00	310000.00			
Lead	MG/KG	2 / 9	12.250	6.30 - 18.20	400.00[j]		118.00	
Naphthalene	UG/KG	2 / 9	1126.000	52.00 - 2200.00	310000.00			
OCDD	PG/G	1 / 1	474.470	474.47 - 474.47	4300.00[c]			
Phenanthrene	UG/KG	1 / 9	55.000	55.00 - 55.00	310000.00[k]			
Potassium	MG/KG	1 / 9	974.000	974.00 - 974.00				
Pyrene	UG/KG	2 / 9	435.500	61.00 - 810.00	230000.00			
Tetrabutyltin	UG/KG	1 / 9	25.280	25.28 - 25.28				
Toluene	UG/KG	6 / 9	2.583	1.50 - 5.00	1600000.00			
bis(2-Ethylhexyl)phthalate	UG/KG	1 / 9	84.000	84.00 - 84.00	46000.00			

Table
Chemicals Detected at Site 677
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Antimony	MG/KG	1 / 5	9.200	9.20 - 9.20	3.10	1		
* Benzo(a)pyrene	UG/KG	2 / 6	115.500	51.00 - 180.00	88.00	1		
* Nickel	MG/KG	5 / 5	210.350	6.90 - 1015.55	160.00	1	29.90	1
1-Methyl napthalene		1 / 6	1700.000	1700.00 - 1700.00				
2-Methylnaphthalene	UG/KG	1 / 6	1900.000	1900.00 - 1900.00	310000.00[i]			
4,4'-DDD	UG/KG	1 / 3	2.700	2.70 - 2.70	2700.00			
4,4'-DDE	UG/KG	1 / 4	3.200	3.20 - 3.20	1900.00			
4,4'-DDT	UG/KG	1 / 4	1.600	1.60 - 1.60	1900.00			
Acenaphthene	UG/KG	1 / 6	2300.000	2300.00 - 2300.00	470000.00			
Acetone	UG/KG	3 / 3	96.666	26.00 - 200.00	780000.00			
Acetonitrile	UG/KG	1 / 2	150.000	150.00 - 150.00	47000.00			
Anthracene	UG/KG	2 / 6	501.000	72.00 - 930.00	2300000.00			
Benzo(a)anthracene	UG/KG	2 / 6	315.000	150.00 - 480.00	880.00			
Benzo(b)fluoranthene	UG/KG	1 / 6	220.000	220.00 - 220.00	880.00			
Benzo(k)fluoranthene	UG/KG	1 / 6	140.000	140.00 - 140.00	8800.00			
Beryllium	MG/KG	3 / 5	0.856	0.62 - 1.10	0.15	3	1.62	
Chromium	MG/KG	1 / 5	46.100	46.10 - 46.10	39.00	1	83.86	
Chrysene	UG/KG	2 / 6	275.000	130.00 - 420.00	88000.00			
Copper	MG/KG	5 / 5	63.340	7.30 - 278.00	290.00		31.62	1
Dibenzofuran	UG/KG	1 / 6	1800.000	1800.00 - 1800.00	31000.00			
Endrin	UG/KG	1 / 3	0.840	0.84 - 0.84	2300.00			
Fluoranthene	UG/KG	5 / 6	650.000	58.00 - 2800.00	310000.00			
Fluorene	UG/KG	1 / 6	2200.000	2200.00 - 2200.00	310000.00			
Lead	MG/KG	1 / 5	19.900	19.90 - 19.90	400.00[j]		68.69	
Mercury	MG/KG	1 / 5	0.200	0.20 - 0.20	2.30		0.74	
Naphthalene	UG/KG	1 / 6	5900.000	5900.00 - 5900.00	310000.00			
Phenanthrene	UG/KG	1 / 5	110.000	110.00 - 110.00	310000.00[k]			
Potassium	MG/KG	5 / 5	1560.000	990.00 - 2620.00				
Pyrene	UG/KG	4 / 6	563.750	56.00 - 1900.00	230000.00			
Tin	MG/KG	3 / 5	10.933	10.60 - 11.20	4700.00			
Toluene	UG/KG	4 / 6	8.750	2.00 - 23.00	1600000.00			

Table
Chemicals Detected at Site 678
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	3 / 9	104.666	45.00 - 200.00	88.00	1		
1-Methyl napthalene		1 / 9	39.000	39.00 - 39.00				
2-Methylnaphthalene	UG/KG	1 / 9	110.000	110.00 - 110.00	310000.00[i]			
4,4'-DDD	UG/KG	5 / 6	78.474	0.37 - 170.00	2700.00			
4,4'-DDE	UG/KG	8 / 9	87.687	1.20 - 480.00	1900.00			
4,4'-DDT	UG/KG	4 / 6	34.525	3.10 - 86.00	1900.00			
Acetone	UG/KG	2 / 9	22.500	17.00 - 28.00	780000.00			
Aluminum	MG/KG	2 / 11	5130.000	4520.00 - 5740.00	7900.00		25310.00	
Anthracene	UG/KG	1 / 9	46.000	46.00 - 46.00	2300000.00			
Arsenic	MG/KG	2 / 11	4.350	1.30 - 7.40	0.37	2	14.81	
Barium	MG/KG	1 / 11	40.900	40.90 - 40.90	550.00		40.33	1
Benzo(a)anthracene	UG/KG	2 / 9	118.000	56.00 - 180.00	880.00			
Benzo(b)fluoranthene	UG/KG	1 / 9	240.000	240.00 - 240.00	880.00			
Benzo(g,h,i)perylene	UG/KG	1 / 9	110.000	110.00 - 110.00	310000.00[f]			
Benzo(k)fluoranthene	UG/KG	1 / 9	100.000	100.00 - 100.00	8800.00			
Chromium	MG/KG	1 / 11	27.700	27.70 - 27.70	39.00		85.65	
Chrysene	UG/KG	2 / 9	129.500	59.00 - 200.00	88000.00			
Copper	MG/KG	4 / 11	10.875	5.60 - 15.70	290.00		27.60	
Di-n-butylphthalate	UG/KG	1 / 9	78.000	78.00 - 78.00	780000.00			
Dieldrin	UG/KG	1 / 3	0.170	0.17 - 0.17	40.00			
Endosulfan I	UG/KG	1 / 4	1.200	1.20 - 1.20	47000.00			
Endosulfan sulfate	UG/KG	2 / 7	0.375	0.26 - 0.49	47000.00[g]			
Endrin aldehyde	UG/KG	1 / 5	0.240	0.24 - 0.24	2300.00[h]			
Fluoranthene	UG/KG	3 / 9	152.000	50.00 - 330.00	310000.00			
Freon 113	UG/KG	1 / 9	4.000	4.00 - 4.00	********.**			
Indeno(1,2,3-cd)pyrene	UG/KG	1 / 9	97.000	97.00 - 97.00	880.00			
Iron	MG/KG	2 / 11	3230.000	2920.00 - 3540.00			30910.00	
Lead	MG/KG	3 / 11	9.733	7.40 - 13.10	400.00[j]		118.00	
Mercury	MG/KG	1 / 11	0.290	0.29 - 0.29	2.30		0.49	
Naphthalene	UG/KG	1 / 9	68.000	68.00 - 68.00	310000.00			
Nickel	MG/KG	1 / 1	7.100	7.10 - 7.10	160.00		33.38	
Phenanthrene	UG/KG	2 / 9	153.000	86.00 - 220.00	310000.00[k]			
Potassium	MG/KG	1 / 11	1240.000	1240.00 - 1240.00				
Pyrene	UG/KG	3 / 9	159.333	68.00 - 330.00	230000.00			
Toluene	UG/KG	5 / 9	2.600	1.00 - 4.00	1600000.00			

Table
Chemicals Detected at Site 678
Surface Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Vanadium	MG/KG	2 / 11	8.050	6.90 - 9.20	55.00		77.38	
bis(2-Ethylhexyl)phthalate	UG/KG	3 / 9	183.333	70.00 - 240.00	46000.00			

Table
Chemicals Detected at Site 678
Subsurface Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	1 / 7	96.000	96.00 - 96.00	88.00	1		
* Lead	MG/KG	3 / 6	157.566	1.80 - 468.00	400.00[j]	1	68.69	1
* Mercury	MG/KG	1 / 7	3.100	3.10 - 3.10	2.30	1	0.74	1
* Nickel	MG/KG	1 / 2	343.650	343.65 - 343.65	160.00	1	29.90	1
1234678-HpCDD	PG/G	1 / 1	2.103	2.10 - 2.10	430.00[c]			
123789-HxCDF	PG/G	1 / 1	0.492	0.49 - 0.49	43.00[c]			
4,4'-DDD	UG/KG	3 / 5	15.800	2.50 - 42.00	2700.00			
4,4'-DDE	UG/KG	4 / 7	10.750	3.60 - 28.00	1900.00			
4,4'-DDT	UG/KG	3 / 6	1.966	0.53 - 4.60	1900.00			
Acetone	UG/KG	4 / 7	18.375	12.50 - 25.00	780000.00			
Aldrin	UG/KG	1 / 6	0.130	0.13 - 0.13	38.00			
Aluminum	MG/KG	2 / 6	4599.000	908.00 - 8290.00	7900.00	1	46180.00	
Arsenic	MG/KG	1 / 6	7.000	7.00 - 7.00	0.37	1	35.52	
Barium	MG/KG	1 / 6	58.600	58.60 - 58.60	550.00		43.80	1
Benzo(a)anthracene	UG/KG	1 / 7	75.000	75.00 - 75.00	880.00			
Chromium	MG/KG	1 / 6	10.000	10.00 - 10.00	39.00		83.86	
Chrysene	UG/KG	1 / 7	110.000	110.00 - 110.00	88000.00			
Copper	MG/KG	4 / 6	19.825	3.30 - 67.30	290.00		31.62	1
Di-n-butylphthalate	UG/KG	1 / 7	53.000	53.00 - 53.00	780000.00			
Endosulfan II	UG/KG	1 / 6	0.250	0.25 - 0.25	47000.00			
Fluoranthene	UG/KG	1 / 7	120.000	120.00 - 120.00	310000.00			
Iron	MG/KG	2 / 6	6915.000	1930.00 - 11900.00			66170.00	
OCDD	PG/G	1 / 1	32.854	32.85 - 32.85	4300.00[c]			
Phenanthrene	UG/KG	1 / 7	67.000	67.00 - 67.00	310000.00[k]			
Potassium	MG/KG	1 / 6	1030.000	1030.00 - 1030.00				
Pyrene	UG/KG	1 / 7	100.000	100.00 - 100.00	230000.00			
Selenium	MG/KG	1 / 7	0.670	0.67 - 0.67	39.00		2.70	
Toluene	UG/KG	4 / 7	3.750	1.00 - 7.00	1600000.00			
Vanadium	MG/KG	1 / 6	18.200	18.20 - 18.20	55.00		131.60	
u60015	?	1 / 7	2.700	2.70 - 2.70				

Table
Chemicals Detected at Site GDC
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 4,4'-DDE	UG/KG	5 / 10	812.480	3.80 - 4000.00	1900.00	1		
* 4,4'-DDT	UG/KG	4 / 7	992.366	9.80 - 3900.00	1900.00	1		
* Aroclor-1260	UG/KG	2 / 11	102.000	14.00 - 190.00	83.00	1		
* Arsenic	MG/KG	16 / 43	6.318	1.50 - 39.40	0.37	16	14.81	1
* Benzo(a)pyrene	UG/KG	5 / 11	184.200	66.00 - 330.00	88.00	3		
* Dieldrin	UG/KG	2 / 6	35.000	0.50 - 69.50	40.00	1		
* N-Nitroso-di-n-propylami	UG/KG	1 / 11	2450.000	2450.00 - 2450.00	91.00	1		
* beta-BHC	UG/KG	2 / 7	1240.500	31.00 - 2450.00	350.00	1		
1,1-Dichloroethene	UG/KG	1 / 11	59.500	59.50 - 59.50	1100.00			
1,2,4-Trichlorobenzene	UG/KG	1 / 11	2800.000	2800.00 - 2800.00	78000.00			
1,4-Dichlorobenzene	UG/KG	1 / 11	2600.000	2600.00 - 2600.00	27000.00			
1234678-HpCDD	PG/G	2 / 3	167.224	11.40 - 323.04	430.00[c]			
1234678-HpCDF	PG/G	2 / 3	34.457	5.91 - 63.00	430.00[c]			
123478-HxCDD	PG/G	1 / 3	4.324	4.32 - 4.32	43.00[c]			
123678-HxCDD	PG/G	1 / 3	7.369	7.36 - 7.36	43.00[c]			
123789-HxCDD	PG/G	1 / 3	9.823	9.82 - 9.82	43.00[c]			
2,4-Dinitrotoluene	UG/KG	1 / 11	2500.000	2500.00 - 2500.00	16000.00			
2-Chlorophenol	UG/KG	1 / 11	5850.000	5850.00 - 5850.00	39000.00			
4,4'-DDD	UG/KG	4 / 10	10.037	0.22 - 39.00	2700.00			
4-Chloro-3-methylphenol	UG/KG	1 / 11	5900.000	5900.00 - 5900.00				
4-Nitrophenol	UG/KG	1 / 11	5150.000	5150.00 - 5150.00	480000.00			
Acenaphthene	UG/KG	1 / 11	2400.000	2400.00 - 2400.00	470000.00			
Aldrin	UG/KG	2 / 8	6.625	0.25 - 13.00	38.00			
Aluminum	MG/KG	27 / 44	4763.333	2110.00 - 9720.00	7900.00	3	25310.00	
Anthracene	UG/KG	1 / 11	39.000	39.00 - 39.00	2300000.00			
Barium	MG/KG	8 / 43	61.162	22.30 - 193.00	550.00		40.33	3
Benzene	UG/KG	1 / 11	68.000	68.00 - 68.00	22000.00			
Benzo(a)anthracene	UG/KG	4 / 11	158.250	50.00 - 330.00	880.00			
Benzo(g,h,i)perylene	UG/KG	1 / 11	95.000	95.00 - 95.00	310000.00[f]			
Cadmium	MG/KG	1 / 44	0.650	0.65 - 0.65	3.90		1.05	
Calcium	MG/KG	6 / 43	26793.333	8360.00 - 50100.00				
Chlordane	UG/KG	2 / 10	245.000	200.00 - 290.00	470.00			
Chlorobenzene	UG/KG	1 / 11	65.500	65.50 - 65.50	160000.00			
Chromium	MG/KG	16 / 43	10.437	3.10 - 31.80	39.00		85.65	
Chrysene	UG/KG	4 / 11	183.750	76.00 - 390.00	88000.00			

Table
Chemicals Detected at Site GDC
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Copper	MG/KG	21 / 44	10.390	3.50 - 38.30	290.00		27.60	1
Di-n-butylphthalate	UG/KG	2 / 10	117.500	95.00 - 140.00	780000.00			
Endosulfan I	UG/KG	2 / 8	1.095	0.94 - 1.25	47000.00			
Endosulfan II	UG/KG	1 / 3	0.210	0.21 - 0.21	47000.00			
Endosulfan sulfate	UG/KG	1 / 7	1.195	1.19 - 1.19	47000.00[g]			
Endrin	UG/KG	1 / 3	50.000	50.00 - 50.00	2300.00			
Endrin aldehyde	UG/KG	2 / 7	3.880	0.71 - 7.05	2300.00[h]			
Fluoranthene	UG/KG	6 / 11	211.500	42.00 - 630.00	310000.00			
Heptachlor	UG/KG	2 / 8	7.950	1.90 - 14.00	140.00			
Heptachlor epoxide	UG/KG	1 / 6	0.465	0.46 - 0.46	70.00			
Indeno(1,2,3-cd)pyrene	UG/KG	2 / 11	138.500	57.00 - 220.00	880.00			
Iron	MG/KG	27 / 44	3756.296	1440.00 - 12000.00			30910.00	
Lead	MG/KG	14 / 44	26.735	2.70 - 121.00	400.00[j]		118.00	1
Magnesium	MG/KG	11 / 43	1186.727	555.00 - 2390.00			9592.00	
Manganese	MG/KG	14 / 44	51.228	19.70 - 101.00	39.00	10	636.40	
Mercury	MG/KG	8 / 44	0.168	0.11 - 0.24	2.30		0.49	
Methoxychlor	UG/KG	1 / 4	1.200	1.20 - 1.20	39000.00			
Nickel	MG/KG	8 / 43	9.262	4.40 - 27.70	160.00		33.38	
OCDD	PG/G	2 / 3	1022.525	91.76 - 1953.28	4300.00[c]			
OCDF	PG/G	2 / 3	79.518	10.62 - 148.41	4300.00[c]			
Pentachlorophenol	UG/KG	1 / 11	4050.000	4050.00 - 4050.00	5300.00			
Petroleum Hydrocarbons,		6 / 6	255.300	6.30 - 858.00				
Phenanthrene	UG/KG	3 / 11	186.666	140.00 - 240.00	310000.00[k]			
Phenol	UG/KG	1 / 11	5900.000	5900.00 - 5900.00	4700000.00			
Potassium	MG/KG	3 / 43	787.666	752.00 - 836.00				
Pyrene	UG/KG	6 / 11	614.555	55.00 - 2183.33	230000.00			
Tin	MG/KG	1 / 43	8.100	8.10 - 8.10	4700.00			
Toluene	UG/KG	4 / 11	17.875	2.00 - 65.50	1600000.00			
Total Hepta-Dioxins	NG/KG	1 / 1	38.282	38.28 - 38.28				
Total Hepta-Furans	NG/KG	1 / 1	13.873	13.87 - 13.87				
Total Hexa-Dioxins	NG/KG	1 / 1	2.062	2.06 - 2.06				
Trichloroethene	UG/KG	1 / 11	67.500	67.50 - 67.50	47000.00			
Vanadium	MG/KG	25 / 44	10.288	5.30 - 25.40	55.00		77.38	
Zinc	MG/KG	11 / 43	79.027	3.40 - 414.00	2300.00		214.30	1
alpha-BHC	UG/KG	2 / 9	0.200	0.12 - 0.28	100.00			

Table
Chemicals Detected at Site GDC
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
delta-BHC	UG/KG	1 / 7	1.100	1.10 - 1.10	490.00[l]			
gamma-BHC (Lindane)	UG/KG	1 / 8	17.000	17.00 - 17.00	490.00			

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC
- f Fluoranthene used as surrogate
- g Endosulfan used as surrogate
- h Endrin used as surrogate
- j Based on proposed action level for soil and treatment technique action level for water
- k Fluoranthene used as surrogate
- l gamma-BHC (Lindane) used as surrogate

Table
Chemicals Detected at Site GDC
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Benzo(a)pyrene	UG/KG	1 / 6	120.000	120.00 - 120.00	88.00	1		
* Mercury	MG/KG	3 / 30	3.020	0.26 - 8.50	2.30	1	0.74	1
* Nickel	MG/KG	1 / 29	2160.000	2160.00 - 2160.00	160.00	1	29.90	1
1-Methyl napthalene		1 / 6	63.000	63.00 - 63.00				
1234678-HpCDD	PG/G	1 / 2	1.777	1.77 - 1.77	430.00[c]			
1234678-HpCDF	PG/G	1 / 2	3.299	3.29 - 3.29	430.00[c]			
123478-HxCDF	PG/G	1 / 2	0.459	0.45 - 0.45	43.00[c]			
1234789-HpCDF	PG/G	1 / 2	0.194	0.19 - 0.19	43.00[c]			
123678-HxCDF	PG/G	2 / 2	0.440	0.40 - 0.47	43.00[c]			
234678-HxCDF	PG/G	1 / 2	0.314	0.31 - 0.31	43.00[c]			
4,4'-DDD	UG/KG	1 / 4	59.000	59.00 - 59.00	2700.00			
4,4'-DDE	UG/KG	2 / 4	69.000	28.00 - 110.00	1900.00			
4,4'-DDT	UG/KG	1 / 5	25.000	25.00 - 25.00	1900.00			
Aluminum	MG/KG	21 / 30	6195.238	1450.00 - 17300.00	7900.00	6	46180.00	
Arsenic	MG/KG	3 / 30	6.466	1.90 - 12.10	0.37	3	35.52	
Barium	MG/KG	1 / 30	33.950	33.95 - 33.95	550.00		43.80	
Benzo(a)anthracene	UG/KG	2 / 6	160.000	140.00 - 180.00	880.00			
Calcium	MG/KG	3 / 29	15130.000	2490.00 - 40300.00				
Chromium	MG/KG	11 / 29	13.736	3.10 - 34.20	39.00		83.86	
Chrysene	UG/KG	2 / 6	128.000	96.00 - 160.00	88000.00			
Copper	MG/KG	5 / 30	9.640	3.00 - 18.60	290.00		31.62	
Di-n-butylphthalate	UG/KG	1 / 6	120.000	120.00 - 120.00	780000.00			
Dieldrin	UG/KG	1 / 6	0.850	0.85 - 0.85	40.00			
Endosulfan sulfate	UG/KG	1 / 3	7.900	7.90 - 7.90	47000.00[g]			
Fluoranthene	UG/KG	2 / 6	270.000	180.00 - 360.00	310000.00			
Iron	MG/KG	16 / 30	3537.312	732.00 - 20900.00			66170.00	
Lead	MG/KG	11 / 30	18.772	2.40 - 57.40	400.00[j]		68.69	
Magnesium	MG/KG	4 / 30	2096.500	896.00 - 3940.00			9179.00	
Manganese	MG/KG	5 / 30	118.900	5.10 - 502.00	39.00	2	1412.00	
Nickel	MG/KG	2 / 29	8.350	7.40 - 9.30	160.00		29.90	
OCDD	PG/G	2 / 2	15.977	12.16 - 19.79	4300.00[c]			
OCDF	PG/G	2 / 2	3.970	3.64 - 4.29	4300.00[c]			
Petroleum Hydrocarbons,		2 / 2	2391.100	76.20 - 4706.00				
Phenanthrene	UG/KG	1 / 6	110.000	110.00 - 110.00	310000.00[k]			
Potassium	MG/KG	2 / 29	1930.000	1690.00 - 2170.00				

Table
Chemicals Detected at Site GDC
Soil, Sampling Interval 2

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Pyrene	UG/KG	2 / 6	300.000	270.00 - 330.00	230000.00			
Toluene	UG/KG	1 / 6	1.000	1.00 - 1.00	1600000.00			
Vanadium	MG/KG	10 / 30	19.190	5.20 - 51.20	55.00		131.60	
Zinc	MG/KG	9 / 29	37.022	3.60 - 86.90	2300.00		129.60	
delta-BHC	UG/KG	1 / 6	0.900	0.90 - 0.90	490.00[l]			

Table
Chemicals Detected at Site GRD
Soil, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Disulfoton	UG/KG	1 / 1	4.500	4.50 - 4.50	310.00			
Methyl parathion	UG/KG	1 / 1	4.200	4.20 - 4.20	2000.00			

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 044
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Acetophenone	UG/L	1 / 1	1.000	1.00 - 1.00	0.00	1		
* Beryllium	UG/L	1 / 8	21.900	21.90 - 21.90	0.01	1		
* Heptachlor epoxide	UG/L	1 / 2	0.003	0.00 - 0.00	0.00	1		
* Nickel	UG/L	9 / 9	883777.777	13200.00 - 4640000.00	73.00	8		
* Nickel	UG/L	2 / 8	152.700	84.40 - 221.00	73.00	2		
* bis(2-Ethylhexyl)phthalate	UG/L	1 / 1	8.000	8.00 - 8.00	4.80	1		
Arsenic	UG/L	4 / 9	12.450	10.60 - 15.30	0.03	3	27.99	
Calcium	UG/L	1 / 8	327000.000	327000.00 - 327000.00				
Cobalt	UG/L	2 / 8	66.900	58.30 - 75.50	220.00			
Iron	UG/L	9 / 9	40617.888	851.00 - 239000.00				
Magnesium	UG/L	9 / 9	158355.555	23200.00 - 653000.00				
Manganese	UG/L	1 / 8	1990.000	1990.00 - 1990.00	18.00	1	6085.00	
Potassium	UG/L	1 / 8	148000.000	148000.00 - 148000.00				
Selenium	UG/L	1 / 8	7.200	7.20 - 7.20	18.00		3.15	1
Total Hepta-Furans		1 / 1	9.234	9.23 - 9.23				
Total Hexa-Dioxins		1 / 1	6.995	6.99 - 6.99				
u14808798	?	3 / 3	1027.000	1010.00 - 1044.00				
u16887006	?	3 / 3	3523.020	3467.90 - 3571.16				
u9999900072	?	2 / 2	8535.000	8210.00 - 8860.00				

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 047
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 15	43.000	43.00 - 43.00	0.04	1		
* Arsenic	UG/L	1 / 4	46.300	46.30 - 46.30	0.03	1	27.99	1
* Benzene	UG/L	1 / 15	50.000	50.00 - 50.00	0.34	1		
* Carbon disulfide	UG/L	2 / 14	4.500	2.00 - 7.00	2.10	1		
* Chlorobenzene	UG/L	2 / 16	46.500	46.00 - 47.00	3.90	1		
* Methylene chloride	UG/L	2 / 13	5.000	1.00 - 9.00	4.10	1		
* Nickel	UG/L	4 / 4	30722.500	5290.00 - 42700.00	73.00	4		
* Trichloroethene	UG/L	2 / 16	47.000	46.00 - 48.00	1.60	1		
Iron	UG/L	4 / 4	3807.250	561.00 - 8000.00				
Magnesium	UG/L	3 / 4	12696.666	5040.00 - 24100.00				
Toluene	UG/L	2 / 16	47.500	47.00 - 48.00	75.00			

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 510
Shallow Ground Water, Sampling Interval I

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Acetone	UG/L	1 / 2	18.000	18.00 - 18.00	370.00			
Methylene chloride	UG/L	1 / 1	3.000	3.00 - 3.00	4.10			

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 523
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Nickel	UG/L	2 / 2	10650.000	10600.00 - 10700.00	73.00	1		
123789-HxCDF	PG/L	1 / 1	3.789	3.78 - 3.78	5.00[c]			
Arsenic	UG/L	2 / 2	15.750	14.90 - 16.60	0.03	1	27.99	
Iron	UG/L	1 / 1	21000.000	21000.00 - 21000.00				
Total Hexa-Furans		1 / 1	3.789	3.78 - 3.78				

Notes:

- * Retained as a chemical of potential concern
- a USEPA Region III Residential Risk-Based Screening Value, March 1994
- c TEF used to calculate dioxin equivalent RBC

Table
Chemicals Detected at Site GDC
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 3	45.000	45.00 - 45.00	0.04	1		
* Benzene	UG/L	1 / 3	51.000	51.00 - 51.00	0.34	1		
* Chlorobenzene	UG/L	2 / 4	48.500	48.00 - 49.00	3.90	1		
* Nickel	UG/L	1 / 1	9640.000	9640.00 - 9640.00	73.00	1		
* Trichloroethene	UG/L	1 / 3	51.000	51.00 - 51.00	1.60	1		
4,4'-DDD	UG/L	1 / 1	0.016	0.01 - 0.01	0.28			
Calcium	UG/L	1 / 1	128000.000	128000.00 - 128000.00				
Iron	UG/L	1 / 1	3480.000	3480.00 - 3480.00				
Magnesium	UG/L	1 / 1	7710.000	7710.00 - 7710.00				
Manganese	UG/L	1 / 1	527.000	527.00 - 527.00	18.00	1	6085.00	
Parathion	UG/L	1 / 1	0.170	0.17 - 0.17	22.00			
Potassium	UG/L	1 / 1	5380.000	5380.00 - 5380.00				
Toluene	UG/L	2 / 4	52.000	50.00 - 54.00	75.00			
u14808798	?	1 / 1	97.500	97.50 - 97.50				
u16887006	?	1 / 1	11.200	11.20 - 11.20				
u9999900072	?	1 / 1	505.000	505.00 - 505.00				

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site GDC
Deep Groundwater, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
Methylene chloride	UG/L	1 / 2	2.000	2.00 - 2.00	4.10			

Notes:

* Retained as a chemical of potential concern
USEPA Region III Residential Risk-Based Screening Value, March 1

Table
Chemicals Detected at Site 044
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* Acetophenone	UG/L	1 / 1	1.000	1.00 - 1.00	0.00	1		
* Beryllium	UG/L	1 / 8	21.900	21.90 - 21.90	0.01	1		
* Heptachlor epoxide	UG/L	1 / 2	0.003	0.00 - 0.00	0.00	1		
* Nickel	UG/L	9 / 9	883777.777	13200.00 - 4640000.00	73.00	8		
* Nickel	UG/L	2 / 8	152.700	84.40 - 221.00	73.00	2		
* bis(2-Ethylhexyl)phthalate	UG/L	1 / 1	8.000	8.00 - 8.00	4.80	1		
Arsenic	UG/L	4 / 9	12.450	10.60 - 15.30	0.03	3	27.99	
Calcium	UG/L	1 / 8	327000.000	327000.00 - 327000.00				
Cobalt	UG/L	2 / 8	66.900	58.30 - 75.50	220.00			
Iron	UG/L	9 / 9	40617.888	851.00 - 239000.00				
Magnesium	UG/L	9 / 9	158355.555	23200.00 - 653000.00				
Manganese	UG/L	1 / 8	1990.000	1990.00 - 1990.00	18.00	1	6085.00	
Potassium	UG/L	1 / 8	148000.000	148000.00 - 148000.00				
Selenium	UG/L	1 / 8	7.200	7.20 - 7.20	18.00		3.15	1
Total Hepta-Furans		1 / 1	9.234	9.23 - 9.23				
Total Hexa-Dioxins		1 / 1	6.995	6.99 - 6.99				
u14808798	?	3 / 3	1027.000	1010.00 - 1044.00				
u16887006	?	3 / 3	3523.020	3467.90 - 3571.16				
u9999900072	?	2 / 2	8535.000	8210.00 - 8860.00				

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

Table
Chemicals Detected at Site 047
Shallow Ground Water, Sampling Interval 1

Parameter	Units	Frequency of Detection	Average Detected Concentration	Range of Detected Concentrations	Screening[a] Concentration	Num. Over Screen	Reference Concentration	Num. Over Ref.
* 1,1-Dichloroethene	UG/L	1 / 15	43.000	43.00 - 43.00	0.04	1		
* Arsenic	UG/L	1 / 4	46.300	46.30 - 46.30	0.03	1	27.99	1
* Benzene	UG/L	1 / 15	50.000	50.00 - 50.00	0.34	1		
* Carbon disulfide	UG/L	2 / 14	4.500	2.00 - 7.00	2.10	1		
* Chlorobenzene	UG/L	2 / 16	46.500	46.00 - 47.00	3.90	1		
* Methylene chloride	UG/L	2 / 13	5.000	1.00 - 9.00	4.10	1		
* Nickel	UG/L	4 / 4	30722.500	5290.00 - 42700.00	73.00	4		
* Trichloroethene	UG/L	2 / 16	47.000	46.00 - 48.00	1.60	1		
Iron	UG/L	4 / 4	3807.250	561.00 - 8000.00				
Magnesium	UG/L	3 / 4	12696.666	5040.00 - 24100.00				
Toluene	UG/L	2 / 16	47.500	47.00 - 48.00	75.00			

Notes:

* Retained as a chemical of potential concern

a USEPA Region III Residential Risk-Based Screening Value, March 1994

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
CHARLESTON, S.C. 29408-6100

5090
Ser 106.2/0723
04 OCT 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and
Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF QUARTERLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Quarterly RFI Progress Report for the Naval Base Charleston Complex as required by our Hazardous and Solid Waste Ammendments Part B Permit (EPA SCO 170 022 560).

Enclosure (1) is the Quarterly RFI Progress Report for activity up through September 30, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R L Laney

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Report - Summary through 30 September, 1995

Copy to:
SCDHEC (Bowers)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
USEPA (Brittain)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 September 1995 To 30 September 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 1994 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of September 1995.

II. PORTION OF THE RFI COMPLETED

- Field work was initiated in Zone A during September 1995 with the redevelopment of the 6 existing monitoring wells at SWMU 2.

- Limited soil sampling for the engineering parameters to be used in the Corrective Measures Study was completed in Zone C.

- Contract award to begin writing the Zones D, F, and G RFI Work Plan was completed on 5 September 1995. Subsequent to the award, a scoping meeting was held between members of the BRAC Cleanup Team and BRAC Project Team.

- Field work continued in Zone E at a number of sites. Attachment A contains a summary of the work completed to date.

- The third quarter of groundwater sampling was initiated in Zone H on 11 September 1995. To date sampling has been completed at 66 of the 97 wells.

- Limited soil sampling for the engineering parameters to be used in the Corrective Measures Study was completed in Zone I.

III. SUMMARIES OF FINDINGS

Previous months status reports have included a summary to date for Zones C, H, and I. A correction to last month's status report needs to be noted with respect to groundwater results reported for SWMU 47. Preliminary results indicated that a groundwater contamination problem existed at monitoring well NBCC-047-003. Upon further review during the validation process, it was determined that the results reported were for laboratory matrix spike and matrix spike duplicate samples collected from the same well rather than the results being representative of contamination.

Field sampling crews performing the groundwater sampling in Zone H discovered the presence of an oily dense non-aqueous phase liquid (DNAPL) in monitoring well NBCH-017-002 at SWMU 17. Preliminary sample results indicate the oily substance contained 290,000 ppm (29%) Arochlor 1260; 13,000 ppm of 1,3-dichlorobenzene; 23,000 ppm of 1,4-dichlorobenzene; and 160,000 ppm of 1,2,4-trichlorobenzene. None of the other wells at the site were observed to contain free product; however, sumps installed years ago along a rear wing of FBM-61 as part of a product recovery system were observed to also contain a considerable amount of product.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the September 1995 meeting and the minutes of the August 1995 meeting are provided as Attachment B. The minutes of the September 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

An update to the *Final Corrective Action Management Plan, Revision 1* dated 21 April 1995 is needed to accurately reflect the current status of the project. Delays in funding have impacted the schedules for work plan development in Zones D, F, G, and K. The project schedules for Zones A, B, E, J, and L need to be revised to reflect either actual or anticipated work plan approval dates so the time frame for completion of the RFI field work and subsequent report

submittal can be adjusted appropriately. The SCDHEC BCT representatives have instructed the Navy to forward a change request and supporting justification to SCDHEC as soon as practical.

Quality assurance plans (QAPs) for the laboratory subcontractors (Lockheed Martin and Triangle Laboratories) selected for the Zone A and B RFI through a competitive bid process need to be included in the *Final Comprehensive RFI Work Plan*. The BCT representatives from both SCDHEC and EPA were informed of the new contract award and the need to incorporate the QAPs into the Comprehensive Plan which is due to be revised by 21 October 1995. Copies of the QAPs have been forwarded to both SCDHEC and EPA in the interim to avoid a delay in the start of field work.

A review of the Global Positioning System (GPS) survey data generated for the soil boring and monitoring well locations in Zone C has indicated that the GPS unit generated some erroneous readings. The locations affected were around large buildings or near overhead utility lines which are probable sources of interference. Because of the experiences in Zone C, it is likely that the use of GPS will have to be abandoned for more conventional surveying methods in Zone E.

Late laboratory deliverables for the Zone C and I RFI are beginning to impede progress on the validation of data to be used in the generation of the RFI reports for those respective zones. Contractual penalties in the amount of 1% per day are being sought in an effort to make the laboratory more responsive. The last of the data is currently projected to be received by 6 October 1995 with validation complete by 13 October 1995. Approximately one additional week will then be needed to verify the manual corrections to the analytical database were input properly.

Logistical problems involving the need for an additional equipment decontamination area have the potential to impact the progress of well installations in Zones A, B, and E which are planned to be conducted concurrently. Efforts are underway to obtain a temporary location within the Controlled Industrial Area (CIA) which will greatly improve this situation.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Validation of the Zone C and I analytical data will continue along with preparation of the draft RFI reports.

- Preparation of the draft work plan for Zones D, F, and G will continue. If funding becomes available, work will begin on the Zone K work plan.

- Comments from SCDHEC and EPA on the *Draft-Final Zone H RFI Report* are anticipated. In addition, meetings between EnSafe/Allen & Hoshall and EPA baseline risk assessment personnel are scheduled for 10 and 11 October 1995 to discuss the report. Revisions to the report will continue based on the content of the written comments and outcome of the meetings.

- The revised *Draft-Final Zone L RFI Work Plan* is due to be submitted to SCDHEC and EPA for review and comment on 18 October 1995.

- Revision 1 to the *Final Comprehensive RFI Work Plan* is due to be submitted to SCDHEC and EPA for final approval on 26 October 1995.

Field Activities:

- Field work will continue in Zones A, B, E, and H in accordance with the project field schedule which is updated bi-weekly.

- Quarterly groundwater sampling is expected to begin in Zones C and I.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and EPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Status Report - Zone E RFI
Summary of Field Activities
August 21 — September 26, 1995

The following summary details work completed and work remaining at each site. Work remaining does not take into account the additional work which will be required to define the extent of any contamination detected in the initial phase of the project. Drilling activities began on September 26, 1995

AOCs 538 and 539 — Building 6
AOC 538
Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from seven soil borings (13 samples) inside the building. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with two samples collected each 24 hour time period (10 samples with one blank).

Work Remaining — Collect soil samples from one shallow well location, install and sample one shallow well and one deep well outside the building. Data from one soil boring and one monitoring well location will be shared with AOC 542 due to the close proximity of these sites.

AOC 539
Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from two soil borings (4 samples) and one sediment sample was collected from a drain inside the building. Wipe sampling activities have been completed with 6 wipe samples collected (3 random floor, 3 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with one sample collected each 24 hour time period (5 samples with one blank). Fifteen samples and two blanks were collected to provide coverage of AOCs 538 and 539 (Building 6 inclusive).

Work Remaining — Collect soil samples from one shallow well location, install and sample one shallow well and one deep well outside the building.

SWMUs 23 and 63, AOCs 540, 541, 542, and 543 — Building 226
Data will be shared between several AOCs and SWMUs due to the close proximity of these sites.

SWMU 23
Work Completed — Soil samples were collected from one soil boring (2 samples) outside of Building 226.

Work Remaining — Collect soil samples from one soil boring and one shallow well location, install and sample one shallow well and one deep well outside the building.

SWMU 63

Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring and two shallow well locations (6 samples) outside of Building 226.

Work Remaining — Install and sample two shallow monitoring wells outside the building.

AOC 540

Work Completed — Soil sampling activities inside Building 226 have been completed. Soil samples were collected from one soil boring (2 samples) inside the building. No further action is scheduled at this time.

AOC 541

Work Completed — Soil sampling activities have been completed. A soil sample was collected from one soil boring (1 sample) in the area between Buildings 6 and 226. A sample could not be collected from the second interval due to an obstruction in the boring. No further action is scheduled at this time.

AOC 542

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring and four shallow monitoring well locations (14 samples) in the area between Buildings 6 and 226.

Work Remaining — Install and sample four shallow monitoring wells in the area between Buildings 6 and 226. Data from one soil boring and one monitoring well location will be shared with AOC 538 due to the close proximity of these sites.

AOC 543

Work Completed — Soil sampling activities inside Building 226 have been completed. Soil samples were collected from one soil boring (2 samples) inside the building. Soil samples were also collected from one soil boring (2 samples) between Buildings 3 and 226.

Work Remaining — Collect soil samples from one soil boring and one monitoring well location outside the building, install and sample one monitoring well.

SWMU 67 — Building 3

Work Completed — Soil sampling activities inside Building 3 have been completed. Soil samples were collected from five soil borings and one monitoring well location (12 samples) inside the building. Air sampling for mercury was completed using a Jerome Mercury Vapor Analyzer. Wipe samples were collected at 8 locations (4 in the former mercury gauge room, 4 in the most recent gauge room).

Work Remaining — Collect soil samples from one monitoring well location outside the building, install and sample one shallow monitoring well inside the building and one shallow well outside the building.

SWMU 70, AOCs 548 and 549 — Building 5

SWMU 70

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings and two shallow monitoring well locations (8 samples) between Buildings 3 and 5.

Work Remaining — Install and sample two shallow monitoring wells between Buildings 3 and 5.

AOC 548

Work Completed — Soil sampling activities inside of Building 5 have been completed. Soil samples were collected from four soil borings (8 samples) inside the building. No further work is scheduled at this time.

AOC 549

Work Completed — Soil sampling activities inside and outside of Building 5 have been completed. Soil samples were collected from three soil borings (6 samples) inside the building and four soil borings and three shallow monitoring well locations (14 samples) in the alley between Buildings 3 and 5.

Work Remaining — Install and sample three shallow monitoring wells and one deep well between Buildings 3 and 5.

SWMU 22, AOC 554 — Between Buildings 5 and 44

SWMU 22

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

AOC 554

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

SWMUs 87 and 172, AOC 564 — Building 80

Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 87

Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) outside of Building 80. No further action is scheduled at this time.

SWMU 172

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and two monitoring well locations (12 samples) outside of Building 80. One sediment sample was collected from the drain outside the building.

Work Remaining — Install and sample two shallow monitoring wells and one deep monitoring well.

AOC 564
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) outside of Building 80. No further action is scheduled at this time.

AOC 576 — Building 80
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 80 and two monitoring well locations (4 samples) outside the building.

Work Remaining — Install and sample two shallow monitoring wells and one deep monitoring well outside of the building.

AOC 566 — Building 194
Work Completed — Soil sampling activities have been completed around the building. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) outside of Building 194.

Work Remaining — Install and sample one shallow monitoring well and one deep monitoring well outside of the building.

AOC 572 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings and three shallow monitoring well locations (16 samples) outside of Building 177.

Work Remaining — Install and sample three shallow monitoring wells outside the building.

AOC 573 — Building 177
Work Completed — Soil samples were collected from four soil borings (8 samples) outside Building 177. Two sediment samples were collected from drains adjacent to Building 177.

Work Remaining — Collect soil samples from one shallow monitoring well location outside the building. Install and sample one shallow monitoring well and one deep monitoring well outside of Building 177.

AOC 579 — Building 1035
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 1035. No further action is scheduled at this time.

SWMU 83 — Building 9
Work Completed — Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities are being collected from September 24 - 29, 1995.

Work Remaining — Collect soil samples from six soil boring locations inside and two shallow monitoring well locations outside of Building 9. Install and sample two shallow monitoring wells outside of the building.

AOC 580 — Building 10
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring and two shallow monitoring well locations (12 samples) outside of Building 10.

Work Remaining — Collect soil samples from two shallow monitoring well locations outside the building. Install and sample two shallow monitoring wells and one deep monitoring well outside of Building 10.

AOC 583 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring and three shallow monitoring well locations (14 samples) outside of Building 236.

Work Remaining — Install and sample three shallow monitoring wells and one deep monitoring well outside of Building 236.

SWMU 97 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring and one shallow monitoring well locations (6 samples) outside of Building 236.

Work Remaining — Install and sample two shallow monitoring wells and one deep monitoring well outside of Building 236.

AOC 567 — Building 75
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (7 samples) outside of Building 75. A sample could not be collected from the second interval at one soil boring due to an obstruction in the boring. No further action is scheduled at this time.

AOC 598 and 599 — Building 39, Pier J
AOC 598
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings and one shallow monitoring well location (8 samples) at Pier J. One sediment sample was collected from a drain at the pier.

Work Remaining — Install and sample one shallow monitoring well at Pier J.

AOC 599

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (8 samples) adjacent to Building 39. A soil sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings. A sediment sample was collected from a drain outside of Building 39.

Work Remaining — Install and sample one shallow monitoring well outside of Building 39.

SWMU 106, AOC 603 — Dry Dock #3

Data will be shared between this AOC and SWMU due to their close proximity.

SWMU 106

Work Completed — Soil samples were collected from two soil boring locations (4 samples) adjacent to Dry Dock #3.

Work Remaining — Collect soil samples from one shallow monitoring well location, install and sample shallow and one deep monitoring well adjacent to Dry Dock #3.

AOC 603

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) adjacent to Dry Dock #3.

Work Remaining — Install and sample one shallow and one deep monitoring well (supplemental well pair) adjacent to Dry Dock #3.

SWMU 5 and 18, AOC 605 — Pad 1278

Data will be shared between the SWMUs and AOC due to the close proximity of these sites.

SWMU 5

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) adjacent to SWMU 5. No further action is scheduled at this time.

SWMU 18

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings and two shallow monitoring well locations (9 samples) adjacent to SWMU 18. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring.

Work Remaining — Install and sample two shallow monitoring wells adjacent to SWMU 18.

AOC 605

Work Completed — Soil sampling activities have been completed. Soil samples were collected from eight soil boring and three shallow monitoring well locations (20 samples) adjacent to

Pad 1278. A sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings.

Work Remaining — Install and sample three shallow monitoring wells adjacent to Pad 1278.

Zone E — Site Specific Completion List					
	Samples Collected				
Site Name	Soil	Sediment	Wipe	Air	Groundwater
AOC 538 - Bldg 6	13	N/A	16	10	0
AOC 539 - Bldg 6	4	1	6	5	0
SWMU 23 - Bldg 226	2	N/A	N/A	N/A	0
SWMU 63 - Bldg 226	6	N/A	N/A	N/A	0
AOC 540 - Bldg 226	2	N/A	N/A	N/A	0
AOC 541 - Bldg 226	1	N/A	N/A	N/A	N/A
AOC 542 - Bldg 226	14	N/A	N/A	N/A	0
AOC 543 - Bldg 226	4	N/A	N/A	N/A	0
SWMU 67 - Bldg 3	12	N/A	8	Random	0
SWMU 70 - Bldg 5	8	N/A	N/A	N/A	0
AOC 548 - Bldg 5	8	N/A	N/A	N/A	N/A
AOC 549 - Bldg 5	20	N/A	N/A	N/A	0
SWMU 22 - Bldg 5	4	N/A	N/A	N/A	N/A
AOC 554 - Bldg 5	4	N/A	N/A	N/A	N/A
SWMU 87 - Bldg 80	2	N/A	N/A	N/A	N/A
SWMU 172 - Bldg 80	12	1	N/A	N/A	0
AOC 564 - Bldg 80	6	N/A	N/A	N/A	N/A
AOC 576 - Bldg 80	10	N/A	N/A	N/A	0
AOC 566 - Bldg 194	10	N/A	N/A	N/A	0
AOC 572 - Bldg 177	16	N/A	N/A	N/A	0
AOC 573 - Bldg 177	8	2	N/A	N/A	0
AOC 579 - Bldg 1035	8	N/A	N/A	N/A	N/A
SWMU 83 - Bldg 9	0	N/A	16	0	0
AOC 580 - Bldg 10	12	N/A	N/A	N/A	0
AOC 583 - Bldg 236	14	N/A	N/A	N/A	0

Zone E — Site Specific Completion List					
Site Name	Samples Collected				
	Soil	Sediment	Wipe	Air	Groundwater
SWMU 97 - Bldg 236	6	N/A	N/A	N/A	0
AOC 567 - Bldg 75	7	N/A	N/A	N/A	N/A
AOC 598 - Pier J	8	1	N/A	N/A	0
AOC 599 - Bldg 39	8	1	N/A	N/A	1
SWMU 106 - DD3	4	N/A	N/A	N/A	0
AOC 603 - DD3	10	N/A	N/A	N/A	0
SWMU 5 - Pad 1278	6	N/A	N/A	N/A	N/A
SWMU 18 - 1278	9	N/A	N/A	N/A	0
AOC 605 - 1278	20	N/A	N/A	N/A	0
TOTAL	278	6	46	15	1

Note:
N/A indicates no samples were proposed for that particular matrix.

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 8 August 1995

1. Call to Order and Administrative Remarks. The meeting was called to order by Captain Jim Augustin, Co-Chairman of the RAB. He also announced that Mr. Don Harbert was elected as the new Community Co-Chair. He asked for suggestions on where to hold future RAB meetings after September.

2. RAB Members Present:

Captain Jim Augustin	Mr. Stephen Best
Mr. Wilburn Gilliard	Mr. Donald Harbert
Mr. Virgil Johnston	Mr. Ralph Laney
Mr. Lou Mintz	Mr. Arthur Pinckney
Ms. Ann Ragan	Mr. Oliver Addison
Mr. Doyle Brittain	Mr. James Couner
Mr. Bobby Dearhart	Mr. Daryle Fontenot
Ms. Wannetta Mallette-Pratt	Mr. Robert Mikell
Ms. Jane Settle	Mr. Bob Veronee

3. Visitors Present.

Mr. Tony Hunt	SOUTHNAVFAC
Mr. Brian Stockmaster	SOUTHNAVFAC
CAPT W. F. Nold	CHASNAVSHIPYD
Mr. N. F. Johnson	CHASNAVSHIPYD
Ms. Jeri Johnson	CNCRDA
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Ms. Cathy Miller	COMNAVBASE PAO
LT Donna Murphy	COMNAVBASE PAO
Mr. Joe Bowers	SCDHEC
Mr. Terry Joyce	Charleston Post and Courier

4. Comments on Minutes.

The meeting was preceded by a tour for RAB members and media of sampling sites. Captain Augustin thanked Mr. Tony Hunt for the tour. Captain Augustin asked for comments on the minutes of the last meeting. The minutes were accepted and will be placed in the repositories.

5. Update on Environmental Cleanup.

Mr. Tony Hunt of Southern Division passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) Progress Report for

Subj: RESTORATION ADVISORY BOARD (RAB) Minutes of 8 August 1995

July 1995. (Attached to these minutes is a copy of the report with a map showing where the various Zones are.)

He reported that there is still no change in the funding status for the Investigative Stage. Zones A,B,C,H and I are fully funded. Zone E is funded through December 1995. Zones J and L are funded for RFI Work Plans only. Remaining to be funded through the Corrective Measures Study stage are Zone E (from January 1996 through completion), Zones J and L (for implementation of the Work Plans), and Zones D, F, G, and K (to begin work plan preparation).

Progress in July was that the comments on the Draft Final Work Plan for Zone E have been received, addressed and the documents resubmitted for final approval. The combined Draft Final Work Plan comments have been received, addressed and resubmitted for Zones A and B. Zone H Draft Final RFI report was submitted for review in July.

One additional site was discovered in July. The site is located in the vicinity of the laboratory and x-ray room in Building 58. The total number of sites to investigate is 234.

Work expected for August includes field work in Zone A, B, and E, receiving regulatory comments on Zones J and L work plans and generating response to comments and revisions, and continuing Zone C and I field work.

Mr. Hunt presented a slide (attached) which summarized funding status. The data was the same as brought back by the Cleanup Team from a Philadelphia conference. The figures appear in the BRAC Cleanup Plan Abstract, a document which outlines the status of all Base cleanups and includes funding levels based on the President's budget submission to Congress.

Funding for both the investigation process and clean-up continues to be a main concern. Mrs. Mallette-Pratt asked if the lack of funding would prolong the cleanup process. Mr. Hunt responded by saying that the cleanup would definitely be prolonged and now it appears that the investigation will also be prolonged. Mr. Arthur Pinckney asked how would this affect the leasing process. Mr. Virgil Johnston of the Charleston Naval Complex Redevelopment Authority explained that this should not slow down the leasing process. A short term lease can still be entered into with future tenants. RAB members also wanted to know if improvement could be made to the property under a short term lease. CAPT Augustin said that improvements can be made, but leasees often ask themselves whether they should because of environmental unknown.

At reduced funding levels, Fast Track Cleanup as envisioned and briefed to the Defense Environmental Response Task Force in January 1995 will not be possible. Up until May 1995, we were in a situation where we asked for funds as soon as we

had a zone ready to work on contract and we would get the money. Now there are far more requirements than money and we will be constrained by funding availability.

CDR Moore, Base Transition Coordinator, stated that he understood that if the Base had an Environmental Baseline Survey approved the Finding of Suitability to Lease (FOSL) process would go a lot faster. He wanted to know when the final draft of the survey will be available from the regulators. Mr. Bobby Dearhart (BRAC Clean-up Team) stated that they have all the drafts and comments incorporated and should have it done in the next few weeks.

CAPT Augustin explained the BRAC Cleanup Plan Abstract. Environmental funding for Charleston is not approved by Congress on a line item basis. It is approved in a lump sum for all the BRAC environmental money for the Navy. It is then parceled out to Southern Division and all other Navy activities across the country. Southern Division then looks at all the requirements at Charleston and decide how best to distribute the money. It is expected that Congress will take what was submitted by the President and reduce the numbers. Again, we don't know what those final numbers will be and how money will be allocated. The BRAC Cleanup Plan Abstract is trying to give an idea of what those numbers will be with what we know today.

Mr. Lancy stated that if this community doesn't stand up and be counted, it may not get the money necessary for cleanup from Congress. CAPT Augustin suggested Mr. Don Harbert take on the community concerns and be the focal point on these matters whether it's in the form of a letter or a visit to elected officials.

Mr. Dearhart asked if we received the money estimated for FY 96 cost to complete, do we have enough work to spend it on. Mr. Hunt stated that they have a list of the projects that will be executed. It will take a lot of work between the Navy and local agencies to use approaches like interim measures. We can substantiate keeping up with the schedule that was originally set for cost to complete. Mr. Doyle Brittain, Environmental Protection Agencies, asked Mr. Hunt to explain cost to complete. Mr. Hunt stated that it essentially says this is what it is going to cost to complete cleanup and the investigation. It is the total requirements for the cleanup.

Mr. Jim Conner wanted to know if we are spending to much time and money on investigation instead of cleanup. He also wanted to know if any cleanup has been done so that leasing can take place. Mr. Hunt stated that we have not done any cleanup and we are still in the investigative stages. Mr. Dearhart and other RAB members indicated that buildings can still be leased without cleanup. We must know what is out there before cleanup can begin. Congress mandates that we must go through testing before cleanup can begin. Ms. Johnson, of the RDA staff, stated that environmental cleanup does not affect the leasing process and they are moving forward with leasing. Companies are not looking to own and they realize there may

be some sampling and remediation on the property they are utilizing. Nonetheless Mr. Conner pointed out that specific early cleanups of certain sites may be needed to attract reusers. Mr. Johnston stated that the RDA is doing a good job at leasing. They are currently negotiating and trying to line up leases with about 15 businesses.

6. Update on Environmental Impact Statement (EIS).

Mr. Dearhart stated that the EIS has been submitted and is out of the local area. A Record of Decision from the Secretary of the Navy is expected soon.

7. Update on the Redevelopment Authority Actions.

Mr. Johnston provided an update on the RDA. They are currently negotiating with the Border Patrol to move into Zone H. The Border Patrol wants to renovate the old barracks area and be in by 19 October 1995. They are expected to bring in 500 to 800 people. They are willing to pay a regime fee and give 3 millions dollars to fix up facilities. He also stated that FMB61 does not have to be cleaned up before the Border Patrol moves in, but, they must be issued an approval saying the building is usable. They are still negotiating with Babcock and Wilcox for a lease.

8. Questions.

Mr. Pinckney noted the need for more tours for the RAB members. Mr. Hunt responded that the Navy would like to have the RAB members see the roto-sonic drill in action as well as view soil sampling in the field.

Mrs. Mallette-Pratt asked for the status of Technical Assistance and Training for the RAB. A response was taken for future action.

Mr. Pinckney also asked about the status of the Shipyard Cleanup Detachment noting that the available funding might be used up on sampling and leave nothing for cleanup. Mr. Ralph Laney said that meetings between NAVSEA and NAVFAC were scheduled for 9-10 August and that funding is a principle concern. Cleanup work has been identified.

9. Adjournment.

It was announced that the next meeting will be held 12 September 1995 at the North Woods Atrium on Ashley Phosphate Road. Informal discussion time starts at 6:00 p.m. with a public hearing by the State at 6:30 p.m., followed by the regular RAB meeting at 7:00 p.m. The meeting was adjourned.

Subj: RESTORATION ADVISORY BOARD (RAB) Minutes of 8 August 1995

Minutes recorded by: _____
Annie Perkins
Secretary

Minutes approved by: _____ _____
J. H. AUGUSTIN **DON HARBERT**
Co-Chairman **Co-Chairman**

Attachments to Minutes
(1) Progress Report for July
(2) Monthly RCRA Facility Investigation (RFI) Report, July 1995

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR JULY 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Investigation only, no change from previous)
  - Fully funded: Zones A, B, C, H, I
  - Funded through December of 1995: Zone E
  - Funded for RFI Work Plans only: Zones J, L

- Remaining to fund for investigation (through Corrective Measures Study)
  - Zone E from beginning of 2nd qtr FY 96 to completion
  - Zones J and L implementation
  - All portions of investigation for Zones D, F, G and K

PROGRESS FOR ~~JUNE~~ July

- Zone E Draft Final work plan comments have been received, addressed and the document has been resubmitted for final approval.

- Zone A and B (combined) Draft Final work plan comments have been received, addressed and the document has been resubmitted for final approval.

- Zone H Draft Final RFI report was submitted for review.

- One additional site was discovered in ~~June~~ July. The site is located in the vicinity of the laboratory and x-ray room in building 58. The concern is whether spills of mercury or silver that was used in these processes could have migrated to the soil and groundwater around the building. The RCRA Facility Assessment has been accomplished and is under review by the Navy. The determination of whether the site will be included in the RCRA Facility Investigation will be made in discussion with the EPA and SCDHEC. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	205
Total	400
No Further Investigation at this time	165
Total to investigate	234

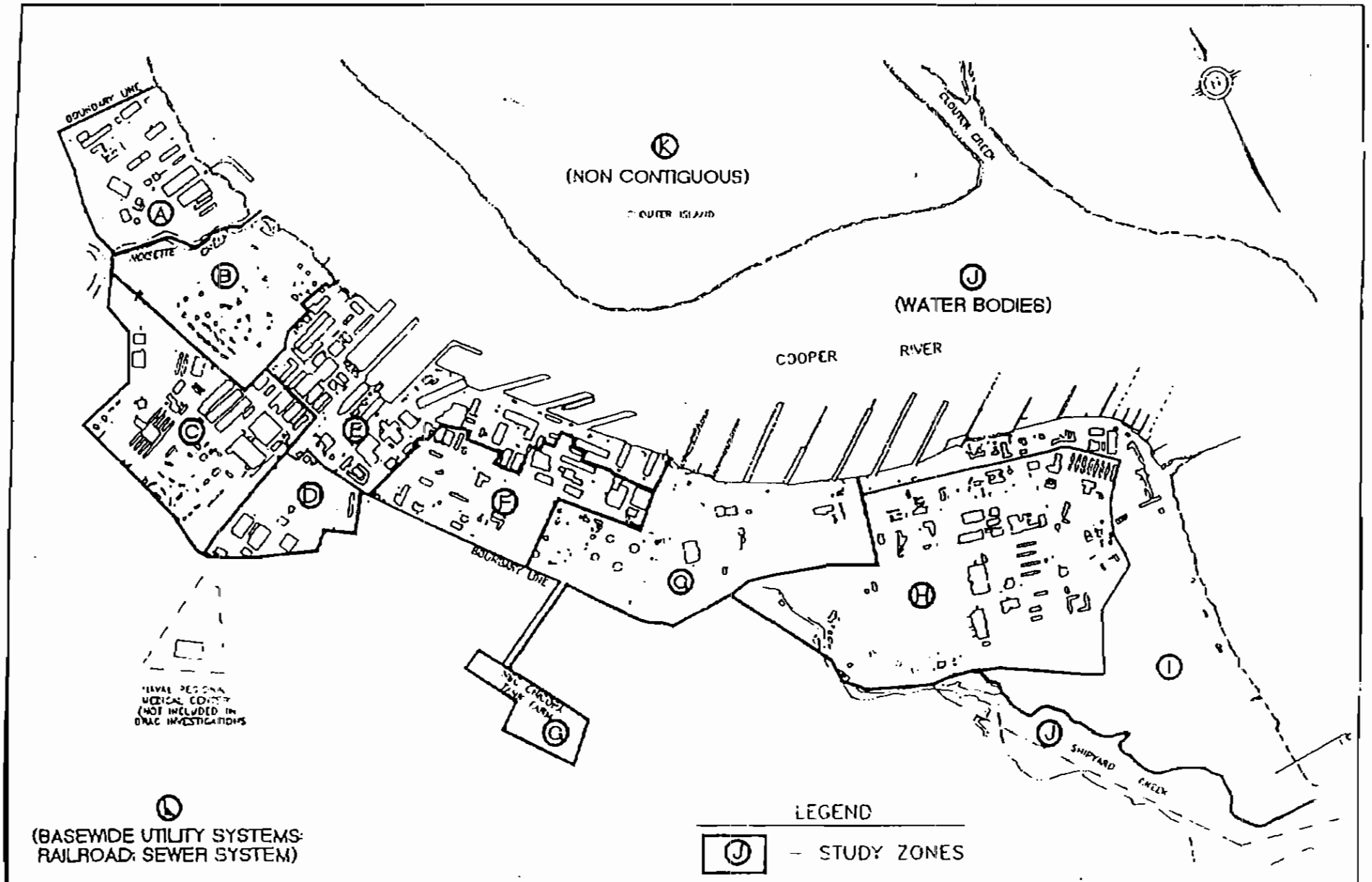
- Zone C and I field work continues, the following table provides a status.

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Wipe
Zone H	800/800	292/292	13/13	4/4	0
Zone I	184/204	55/55	22/22	5/5	18/18
Zone C	218/238	31/31	13/13	14/14	0

PROJECTED ACTIVITY FOR AUGUST

- Begin field work in Zone E.
- Begin field work in Zones A & B.
- Receive regulatory comments on Zones J and L work plans and generate response to comments and revisions if necessary.
- Continue Zone C and I field work.



NAVAL BASE CHARLESTON
CHARLESTON, S.C.

FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES

DWG DATE: 01/13/95 | DWG NAME: 29ZONE1

5090
Ser 106.2/0723
04 OCT 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and
Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF QUARTERLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Quarterly RFI Progress Report for the Naval Base Charleston Complex as required by our Hazardous and Solid Waste Ammendments Part B Permit (EPA SCO 170 022 560).

Enclosure (1) is the Quarterly RFI Progress Report for activity up through September 30, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Report - Summary through 30 September, 1995

Copy to:
SCDHEC (Bowers)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
USEPA (Brittain)
E/A&H

Blind copy to:
106DF, 106.2, 106.2x

106 RLR 10/4
106.2
106.2x

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
CHARLESTON, S.C. 29408-6100

5090
Ser 106.2/0763
NOV 03 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of October, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Report - October, 1995

Copy to:
SCDHEC (Bowers)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 October 1995 To 31 October 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 1994 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of October 1995.

II. PORTION OF THE RFI COMPLETED

- With the exception of 6 soil borings located at SWMU 2 and 1 grid based location, sample collection from all soil borings proposed in Zones A and B have been completed. Additionally, all 19 shallow wells proposed in the RFI work plan were installed and developed.

- Preparation of the *Draft Zone C RFI Report* continued.

- The Draft Zones D, F, and G RFI Work Plan was nearly completed by the end of the current reporting period.

- Field work continued in Zone E at a number of sites. Attachment A contains a summary of the work completed to date.

- The third quarter of groundwater sampling in Zone H was completed.

- Preparation of the *Draft Zone I RFI Report* continued.

- Comments on the *Draft-Final Zone J RFI Work Plan* were received. Preparation of a response to the comments and revisions to the plan were initiated.

- The *Final Zone L RFI Work Plan* was submitted to SCDHEC and EPA on 18 October 1995 for final review and approval.

III. SUMMARIES OF FINDINGS

Analytical reports for samples collected in Zones A, B, and E were being received just prior to submittal of this status update. The reports are in the process of undergoing preliminary review but there was insufficient time to compile a summary for this status update. Next months report will contain a summary of data received to date.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The agenda from the October 1995 meeting and the minutes of the September 1995 meeting are provided as Attachment B. The minutes of the October 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

Revision 2 of the *Final Corrective Action Management Plan* was rejected on the basis that lack of funding is an inadequate reason to request a schedule revision. The Navy is currently reevaluating the CAMP revision.

Concerns were raised by USEPA regarding the content of the Baseline Risk Assessment section of the *Draft Zone H RFI Report*. To resolve the issues representatives from EnSafe/Allen & Hoshall met with USEPA risk assessment personnel on 10 and 11 October 1995. The most significant issue resolved was related to the ecological risk assessment. During the meeting it was agreed that, for all zone specific reports, a quantitative risk assessment will be performed for terrestrial areas specific to the zone. For aquatic environments that may be common to both the zone in question and Zone J, a preliminary risk characterization will be completed to assess

the potential for risk related to concentrations of contaminants from within the zone being addressed. This preliminary characterization will provide a starting point for a full risk determination that will be completed for the aquatic areas found in Zone J.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Validation of the Zone C and I analytical data will continue along with preparation of the draft RFI reports.
- The *Draft Zones D, F, and G RFI Work Plan* is anticipated to be submitted to the Navy for review and comment by mid-November. If funding becomes available, work will begin on the Zone K work plan.
- Comments from SCDHEC and EPA on the *Draft-Final Zone H RFI Report* are anticipated.
- The *Final Zone J RFI Work Plan* and a response to comments are due to be submitted to SCDHEC and USEPA on 18 November 1995.

Field Activities:

- The installation of deep wells in Zones A and B is anticipated to begin by the week of 13 November 1995.
- Quarterly groundwater sampling is expected to begin in Zones C and I.
- Soil, sediment, and surface water sampling efforts will continue in Zone E. In addition, the installation of deep wells will begin in Zone E upon completion of the deep well installations in Zones A and B.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and EPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Status Report - Zone E RFI
Summary of Field Activities
August 21 — October 31, 1995

The following summary details work completed and work remaining at each site. Work remaining does not take into account the additional work which will be required to define the extent of any contamination detected in the initial phase of the project. A total of 49 shallow groundwater monitoring wells have been installed, with 389 soil, 11 sediment, 53 wipe, and 15 air samples collected.

AOCs 538 and 539 — Building 6

AOC 538

Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from seven soil borings (13 samples) inside the building. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with two samples collected each 24 hour time period (10 samples with one blank).

Work Remaining — Collect soil samples from one shallow well location, install and sample one shallow well and one deep well outside the building. Data from one soil boring and one monitoring well location will be shared with AOC 542 due to the close proximity of these sites.

AOC 539

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside and from one shallow monitoring well location (2 samples) outside of Building 6. One sediment sample was also collected from a drain inside the building. Wipe sampling activities have been completed with 6 wipe samples collected (3 random floor, 3 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with one sample collected each 24 hour time period (5 samples with one blank). Note: 15 samples with two blanks for complete coverage of AOC 538 and 539 (Building 6 inclusive).

Work Remaining — Install and sample one shallow monitoring well and one deep monitoring well outside the building.

SWMUs 23 and 63, AOCs 540, 541, 542, and 543 — Building 226

Data will be shared between several AOCs and SWMUs due to the close proximity of these sites.

SWMU 23

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings locations (4 samples) and from one shallow monitoring well location (2 samples) outside of Building 226. One shallow monitoring well has been installed outside of the building.

Work Remaining — Sample one shallow monitoring well, install and sample one deep well outside the building.

SWMU 63
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring and two shallow well locations (6 samples) outside of Building 226. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Sample the two shallow monitoring wells outside the building.

AOC 540
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside of Building 226. No further action is scheduled at this time.

AOC 541
Work Completed — Soil sampling activities have been completed. A soil sample was collected from one soil boring (1 sample) in the area between Buildings 6 and 226. A sample could not be collected from the second interval due to an obstruction in the boring. Data from this boring will be shared with AOC 542 due to the close proximity of these sites. No further action is scheduled at this time.

AOC 542
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and four shallow monitoring well locations (7 samples) in the area between Buildings 6 and 226. A sample could not be collected from the second interval at one soil boring and one well location due to subsurface obstructions. Four shallow monitoring wells have been installed in the area between Buildings 6 and 226.

Work Remaining — Sample the four shallow monitoring wells in the area between Buildings 6 and 226. Data from one soil boring and one monitoring well location will be shared with AOC 538 due to the close proximity of these sites.

AOC 543
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside and from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 226. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the shallow monitoring well outside the building.

SWMU 67 — Building 3

Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and one monitoring well location (2 samples) inside Building 3 and one shallow monitoring well location (2 samples) outside the building. Air sampling for mercury was completed using a Jerome Mercury Vapor Analyzer. Wipe samples were collected at 8 locations (4 in the former mercury gauge room, 4 in the most recent gauge room). Two shallow monitoring wells have been installed, one inside the building and one outside the building.

Work Remaining — Sample the two shallow monitoring wells.

SWMU 70, AOCs 548 and 549 — Building 5

SWMU 70

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings and two shallow monitoring well locations (8 samples) between Buildings 3 and 5. Two shallow monitoring wells have been installed between Buildings 3 and 5.

Work Remaining — Sample the two shallow monitoring wells between Buildings 3 and 5.

AOC 548

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) inside of Building 5. No further work is scheduled at this time.

AOC 549

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 5 and four soil borings and three shallow monitoring well locations (14 samples) in the alley between Buildings 3 and 5. Three shallow monitoring wells have been installed in the alley between the buildings.

Work Remaining — Sample the three shallow monitoring wells and install and sample one deep well in the alley between Buildings 3 and 5.

SWMU 22, AOC 554 — Between Buildings 5 and 44

Data will be shared between this AOC and SWMU due to the close proximity of these sites.

SWMU 22

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

AOC 554
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

SWMUs 87 and 172, AOC 564 — Building 80
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 87
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) outside of Building 80, at the former location of the <90 day storage area. No further action is scheduled at this time.

SWMU 172
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and two monitoring well locations (12 samples) outside of Building 80, at the former location of the steam cleaning operations. One sediment sample was collected from the drain outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 564
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) outside of Building 80, at the location of the oil/water separator. No further action is scheduled at this time.

AOC 576 — Building 80
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 80 and two monitoring well locations (4 samples) outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of the building.

AOC 566 — Building 194
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) outside of Building 194. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of the building.

AOC 572 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and three shallow monitoring well locations (6 samples) outside of Building 177, at the former location of the motor area. Three shallow monitoring wells have been installed in the parking lot outside of Building 177. One sediment sample was also collected from a drain in the parking lot outside the building.

Work Remaining — Sample the three shallow monitoring wells outside the building.

AOC 573 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) outside Building 177. Two sediment samples were collected from drains adjacent to Building 177.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of Building 177.

AOC 579 — Building 1035
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 1035. No further action is scheduled at this time.

SWMU 83 — Building 9
Work Completed — Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities are being collected from September 24 - 29, 1995.

Work Remaining — Collect soil samples from six soil boring locations inside and two shallow monitoring well locations outside of Building 9. Install and sample two shallow monitoring wells outside of the building.

AOC 580 — Building 10
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 10. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of Building 10.

AOC 583 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and three shallow monitoring well locations (6 samples) outside of Building 236. Two shallow monitoring wells have been installed.

Work Remaining — Install one more shallow monitoring well and sample the three shallow monitoring wells outside the building. Install and sample one deep monitoring well outside of Building 236.

SWMU 97 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 236. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 236.

AOC 567 — Building 75
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (7 samples) outside of Building 75. A sample could not be collected from the second interval at one soil boring due to an obstruction in the boring.
Four wipe samples have also been collected from inside the building. No further action is scheduled at this time.

AOC 598 and 599 — Building 39, Pier J

AOC 598
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) at Pier J. One sediment sample was collected from a drain at the pier. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well at Pier J.

AOC 599
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (6 samples) and one shallow monitoring well location (2 samples) adjacent to Building 39. A soil sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings. One sediment sample was collected from a drain outside of Building 39. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 39.

SWMU 106, AOC 603 — Dry Dock #3
Data will be shared between this AOC and SWMU due to their close proximity.

SWMU 106
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring locations (4 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well location, install and sample one deep monitoring well adjacent to Dry Dock #3.

AOC 603
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well adjacent to Dry Dock #3.

SWMU 5 and 18, AOC 605 — Pad 1278
Data will be shared between the SWMUs and AOC due to the close proximity of these sites.

SWMU 5
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) adjacent to SWMU 5. No further action is scheduled at this time.

SWMU 18
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and two shallow monitoring well locations (4 samples) adjacent to SWMU 18. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 605
Work Completed — Soil sampling activities have been completed. Soil samples were collected from eight soil boring (14 samples) and three shallow monitoring well locations (6 samples) adjacent to Pad 1278. A sample could not be collected from the second interval at one soil boring and one shallow monitoring well location due to obstructions in the borings. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells adjacent to Pad 1278.

SWMU 65, AOC 544 and 546 - Building 221
Data will be shared between these AOCs and SWMU due to the close proximity of these sites.

SWMU 65
Work Completed - Soil samples have been collected from four shallow monitoring well locations (7 samples) outside of Building 221. A soil sample could not be collected from the second interval of one soil boring due to an obstruction in the boring. Three shallow monitoring wells have been installed outside of the building.

Work Remaining - Collect soil samples from two more shallow monitoring well locations outside the building. Install three more shallow monitoring wells and one deep monitoring well and sample six shallow monitoring wells and one deep monitoring well outside the building.

AOC 544
Work Completed - Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (8 samples) inside of Building 221. No further action is scheduled at this time.

AOC 546
Work Completed - An attempt to collect a soil sample from one corner of former Building 1025 was unsuccessful due to subsurface obstructions encountered below the concrete surface. Samples collected from SWMU 65 and AOC 544 will share data with this site due to the proximity of these sites and should be sufficient to determine the presence of any contamination which may have produced by AOC 546. One sediment sample was collected from a drain in the corner of former Building 1025. No further action is scheduled at this time.

AOC 551 and 552 - Building 1119
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 551
Work Completed - Soil sampling activities have been completed. Soil samples were collected at four soil borings (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 1119. Two shallow monitoring wells have been installed.

Work Remaining - Sample the two shallow monitoring wells, install and sample one deep monitoring well outside of Building 1119.

AOC 552
Work Completed - Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) at the location of former Building 1030. An attempt to collect soil samples from a fourth soil boring was unsuccessful due to subsurface obstructions in the area of the boring. No further action is scheduled at this time.

SWMU 173 - Building 1297
Work Completed - Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside of Building 1297. Three sediment samples were also collected from three drains outside of the building. No further action is scheduled at this time.

SWMU 100 - Building 218
Work Completed - Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) at the location of the former satellite accumulation area. One shallow monitoring well has been installed.

Work Remaining - Sample the one shallow monitoring well.

AOC 528 - Building 1453
Work Completed - Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) outside of Building 1453. One shallow monitoring well was installed outside the building.

Work Remaining - Sample the one shallow monitoring well outside the building.

AOC 586 - Former Building 1014
Work Completed - Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples). One shallow monitoring well was installed at the location of former Building 1014.

Work Remaining - Sample the one shallow monitoring well.

AOCs 569, 570 and 578 - Building 25
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 569
Work Completed - Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and two shallow monitoring well locations (4 samples) at the location of the former oil storehouse and gas station.

Work Remaining - Install and sample two shallow monitoring wells and one deep monitoring well.

AOC 531 - Building 459
Work Completed - Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) around Building 459. One surface soil sample will be collected and shared with AOC 530. No further action is scheduled at this time.

AOC 558 - Building 77
Work Completed - Four wipe samples have been collected from the substation inside of Building 77.

Work Remaining - Collect four concrete core samples from the area outside the substation.

AOC 596 - Building 101
Work Completed - Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) outside the building, and one soil boring (2 samples) and four shallow monitoring well locations (8 samples) inside the building. Soil samples could not be collected from a second soil boring location inside the building due to subsurface obstructions. Four shallow monitoring well have been installed outside the building.

Work Remaining - Sample the four shallow monitoring wells and install and sample two deep monitoring wells outside of the building.

AOC 597 - Building 91
Work Completed - Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 91. Three wipe samples were collected from inside the building. No further action is scheduled at this time.

Zone E — Site Specific Completion List					
	Samples Collected				
Site Name	Soil	Sediment	Wipe	Air	Groundwater
AOC 538 - Bldg 6	13	N/A	16	10	0
AOC 539 - Bldg 6	6	1	6	5	0
SWMU 23 - Bldg 226	6	N/A	N/A	N/A	0
SWMU 63 - Bldg 226	6	N/A	N/A	N/A	0
AOC 540 - Bldg 226	2	N/A	N/A	N/A	0
AOC 541 - Bldg 226	1	N/A	N/A	N/A	N/A
AOC 542 - Bldg 226	14	N/A	N/A	N/A	0
AOC 543 - Bldg 226	4	N/A	N/A	N/A	0
SWMU 67 - Bldg 3	12	N/A	8	Random	0
SWMU 70 - Bldg 5	8	N/A	N/A	N/A	0
AOC 548 - Bldg 5	8	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List					
	Samples Collected				
Site Name	Soil	Sediment	Wipe	Air	Groundwater
AOC 549 - Bldg 5	20	N/A	N/A	N/A	0
SWMU 22 - Bldg 5	4	N/A	N/A	N/A	N/A
AOC 554 - Bldg 5	4	N/A	N/A	N/A	N/A
SWMU 87 - Bldg 80	2	N/A	N/A	N/A	N/A
SWMU 172 - Bldg 80	12	1	N/A	N/A	0
AOC 564 - Bldg 80	6	N/A	N/A	N/A	N/A
AOC 576 - Bldg 80	10	N/A	N/A	N/A	0
AOC 566 - Bldg 194	10	N/A	N/A	N/A	0
AOC 572 - Bldg 177	16	1	N/A	N/A	0
AOC 573 - Bldg 177	8	2	N/A	N/A	0
AOC 579 - Bldg 1035	8	N/A	N/A	N/A	N/A
SWMU 83 - Bldg 9	0	N/A	16	0	0
AOC 580 - Bldg 10	12	N/A	N/A	N/A	0
AOC 583 - Bldg 236	14	N/A	N/A	N/A	0
SWMU 97 - Bldg 236	6	N/A	N/A	N/A	0
AOC 567 - Bldg 75	7	N/A	N/A	N/A	N/A
AOC 598 - Pier J	8	1	N/A	N/A	0
AOC 599 - Bldg 39	8	1	N/A	N/A	0
SWMU 106 - DD3	4	N/A	N/A	N/A	0
AOC 603 - DD3	10	N/A	N/A	N/A	0
SWMU 5 - Pad 1278	6	N/A	N/A	N/A	N/A
SWMU 18 - 1278	9	N/A	N/A	N/A	0
AOC 605 - 1278	20	N/A	N/A	N/A	0
SWMU 65 - Bldg 221	7	N/A	N/A	N/A	0
AOC 544 - Bldg 221	8	N/A	N/A	N/A	N/A
AOC 546 - Bldg 221	N/A	1	N/A	N/A	N/A

Zone E — Site Specific Completion List					
	Samples Collected				
Site Name	Soil	Sediment	Wipe	Air	Groundwater
AOC 551 - Bldg 1119	12	N/A	N/A	N/A	0
AOC 552 - Bldg 1119	6	N/A	N/A	N/A	N/A
SWMU 173 - Bldg 1297	4	3	N/A	N/A	N/A
SWMU 100 - Bldg 218	6	N/A	N/A	N/A	0
AOC 528 - Bldg 1453	8	N/A	N/A	N/A	0
AOC 586 - Bldg 1014	8	N/A	N/A	N/A	0
AOC 569 - Bldg 25	10	N/A	N/A	N/A	0
AOC 531 - Bldg 459	6	N/A	N/A	N/A	N/A
AOC 558 - Bldg 77	N/A	N/A	4	N/A	N/A
AOC 596 - Bldg 101	22	N/A	N/A	N/A	0
AOC 597 - Bldg 91	8	N/A	3	N/A	N/A
TOTAL	389	11	53	15	0

Note:
N/A indicates no samples were proposed for that particular matrix.

Tuesday, Oct 10, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

6:00 PM NORTHWOODS ATRIUM (Best Western) off Interstate 26 at Ashley Phosphate Road

RAB members, BRAC Cleanup Team, and interested citizens informally talk about what's going on from 6 p.m.

7:00 pm RAB Meeting

A.	Introduction of the RAB Members and Guests	
B.	Administrative Remarks, Comments on the minutes of last meeting,	
C.	RAB Member concerns	Captain Augustin
D.	Subcommittee Reports	
E.	Environmental Cleanup Progress Report	Mr. Tony Hunt
F.	Update on Redevelopment Authority Actions	Mr. Virgil Johnston
G.	Navy Closure Progress	Captain Augustin
H.	Remaining Questions and Comments from Visitors	
I.	Other Business	

Please mark your calendar: Our next meeting is Tuesday, November 14. Note that the Atrium is not available on our normal meeting day in November or December. One option is meet at Southern Division main conference room. If you have other suggested locations

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 12 September 1995

1. Call to Order. The meeting was called to order by Captain Jim Augustin, Co-Chairman of the RAB.

2. RAB Members Attending.

Captain Jim Augustin	Mr. Don Harbert
Mr. Van Robinson	Mr. Daryle Fontenot
Mr. Virgil Johnston	Mrs. Susan Floyd
Mr. Bobby Dearhart	Mr. Ralph Lane
Mr. Doyle Brittain	Mr. Arthur Pinckney
Mrs. Wannetta Mallette-Pratt	Ms. Ann Ragan

3 Guests Attending.

Mr. Tony Hunt	SOUTHNAVFAC
Mr. Brian Stockmaster	SOUTHNAVFAC
Mrs. Pat Franklin	SOUTHNAVFAC
Mr. Bill Hill	SOUTHNAVFAC
Mrs. Kimberly Reavis	SOUTHNAVFAC
Mr. Jeff Drummond	SOUTHNAVFAC
Mr. Jim Beltz	SOUTHNAVFAC
Mr. Tom Gerken	CHASNAVSHIPYD
Mrs. Anna Gerken	Concerned Citizen
CDR. Daniel Ries	CHASNAVSHIPYD
Mr. Ken Hickman	CHASNAVSHIPYD
Mr. Joe Bowers	SCDHEC
Mr. Seth Nelson	NES
Mr. Jim Moore	DOD Base Transition Coordinator
Mr. Rick Richter	Trident DHEC
Mrs. Jeri Johnson	RDA
Ms. Susan Dunn	Grassroots Conversion Coalition
Mr. Ron Ruys	Concerned Citizen
Mrs. June Brittain	Concerned Citizen
Mr. Jack Smith	Nelson-Mullins
Mr. Darryl DeHaven	DOE-NRRO
Mr. Eric White	Albrecht & Assoc.
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Ms. Debra Blagg	EnSafe/Allen & Hoshall
Ms. Lisa Brown	EnSafe/Allen & Hoshall
Mr. Peter McPheters	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Mr. John Litton	SCDHEC
Mr. David Walton	SCDHEC

4. Comments on Minutes.

Captain Augustin asked for comments on the minutes of the last meeting. Mrs. Wannetta Mallette-Pratt noted two statements that were omitted. An Addendum to the minutes of the 8 August meeting has been prepared and is attached to these minutes. The minutes were then accepted and both the minutes and the Addendum will be placed in the repositories.

5. RAB Member Concerns.

Captain Augustin passed out a list of concerns of RAB members that had surfaced during previous meetings. A copy of these concerns and suggestions for improvements is attached for information. He noted that many of the concerns have now been addressed and that progress is being made toward addressing all of them. He asked that RAB members review these items for the next meeting when current status of each and any new concerns will be discussed. He then asked for RAB Sub-Committee Reports. There were none at this time.

6. Update on Environmental Cleanup.

Mr. Tony Hunt, Remedial Project Manager for the Charleston Naval Complex, passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) Progress Report for August 1995. (Attached to these minutes is a copy of the report with a map showing the various Zones.)

Mr. Hunt reported that there were changes in funding from the last several months. The fully funded zones are still Zones A, B, C, H and I. Zone E is funded through December 1995 but we have budgeted in FY 96 for the remainder of that funding and should receive it during the first quarter of FY 96.

RFI Work Plans for Zones J, L, D, F and G are funded but there is no implementation money. This means while we are able to proceed with planning documents and get them approved by the regulators, we do not have the funding to go into the zones and start taking soil samples, groundwater samples, install monitoring wells, etc. The Work Plans for Zones J and L are in review by EPA and SCDHEC. Zones D, F and G are presently being prepared as one Work Plan. Zone K Work Plan preparation and implementation remains unfunded. Funding has been obtained for the remainder of the groundwater monitoring in Zone H.

The FY 96 dollars that we expect to receive are for the remainder of Zone E ($1.3 million) and $7.5 million for remediation work that will be accomplished by the Shipyard Detachment. The Shipyard will be involved with the cleanup, acting as a response action contractor. It appears that funding and work will support between 150 and 200 people.

In response to a question from Mr. Arthur Pinckney, Mr. Hunt clarified what was said at the last RAB meeting in regard to funding. Mr. Hunt said we were not going

to get all the funding in FY 96 we needed to complete our investigations - for example, the RFI type work which is needed to identify the extent of contamination in all zones. What we did receive instead was money to support remediation work that the Shipyard Detachment will be tasked with in order to start cleaning up sites that have already been identified. We now have the opportunity to get into cleanup a lot faster but our investigations have slowed down.

The Zones needing funds to carry the investigations through the Corrective Measures Study will be Zone J which is the ecological and Zone L which is the sewer system and the railroads; Zone D which is the large area outside of the McMillan Gate (parking lot and the warehouses); and Zones F and G which is the area where the ballfields and fuel farm are - the center portion of the Base. We have no funds for any part of the Zone K investigation which is the non-contiguous property such as Clouter Island and the Navy property at the Naval Station South Annex by the Air Force Base.

Mr. Hunt reported that progress for August included Zone E Work Plan approval. Also some progress has been made in the field to locate utilities. Soil sampling has been concentrated in and around facilities that the RDA is interested in such as the Electroplating Facility (Bldg 226), the Inside Machine Shop (Bldg 3), and the Foundry (Bldg 6).

Mr. Jim Moore asked if there had been sampling in Zone E. Mr. Hunt said that there had been soil sampling, and that installation of monitoring wells would begin in several weeks.

Zones A and B Work Plans have been approved and work is underway to clear the underground utilities so that well installation can begin. The six existing wells in Zone A have been redeveloped and are about to be sampled.

The Zone H draft final RFI Report is in regulatory review. We anticipate regulatory comments in October.

No additional sites were discovered in August with the total remaining at 400. Zones C and I field work is essentially complete. Geotechnical work is now being done.

Third quarter sampling in Zone H has been funded and is being subcontracted to General Engineering Laboratories, a local laboratory. Captain Augustin asked that Mr. Hunt explain the difference between sampling being done for the whole Zone and quarterly sampling. Mr. Hunt said that, initially, monitoring wells will be installed and will be sampled to determine what the constituents are in the groundwater at that point in time. That gives us an idea of whether there is the presence or absence of contamination. Then we monitor periodically to see if there is any movement. This periodical sampling is standard practice. If the well is consistently found to maintain a certain level of concentration of contaminants then

we can be fairly certain of where that contamination has migrated if there is any. He pointed out that periodic sampling is only done on groundwater.

In response to a question, Mr. Hunt explained again that existing wells in Zone A have been redeveloped. There were about six wells that were in and around the area of Solid Waste Management Unit (SWMU) 2, which is a land contamination area. They were installed about 1-1/2 years ago and we are going back to see what is in them now as opposed to then and utilize the information in the overall groundwater sampling strategy.

Projected activity for September is that groundwater monitoring wells installation will begin in Zone E. They are being given priority in and around Buildings 3 and 6. We expect to begin the field work in Zones A and B for soil sampling and groundwater monitoring wells installation. We expect to meet and resolve comments and concerns on Zones J and L Work Plans. We are also into the process of preparing Zones C and I final RFI Report which are due 18 and 11 December, respectively.

Mrs. Jeri Johnson asked if sampling would be done around the piers. Mr. Hunt said that this area was Zone J, the ecological study area, and discharges from the outfalls will be looked at as well as in and around the drydocks where there could have been something discharged. She also asked if there would be a problem with dredging before the investigations are completed. Mr. Hunt said that the RDA dredging would probably be done under current permits which address the same sediments that have been dredged for a number of years. Based on the investigation results, the Corps of Engineers may ask that they be provided. Mr. Hunt said that he could look at expediting sampling in that area.

Mr. Doyle Brittain of the EPA stated that the RDA needed to talk with the BCT prior to any dredging.

Mr. Brittain questioned why Mr. Hunt was calling Zone J the ecological study area. He said he considered it waterbodies. Mr. Hunt said that he referred to it as the ecological study area because the focus of that investigation is to address the migration of contaminants from land based zones to the water bodies. The contamination would be predominantly in the sediments. The investigation also covers areas on land on the Base that have ecological habitats so the Navy is not simply studying waterbodies, but also the effects on ecological receptors.

Mr. Jim Moore asked why it was taking from September to December to complete the RFI for Zones C and I. Mr. Hunt said that all of the data was not in. The field work has been completed and the data is being compiled and validated. The data is then used in the Risk Assessment. What takes so long is compiling all of the geological, hydrogeological and chemical data, completing the Risk Assessment and ultimately combining into the form of the RFI Report.

Mr. Van Robinson asked if the RAB could get an overview of how much money has been spent in the areas of investigation and remedial action so far and how much will be spent in the next five years or so. Mr. Hunt said that he could probably come up with how much has been spent up to now, but it would be difficult to estimate what would be spent in the future on remedial costs. He said that the Cost to Complete numbers which were given out at the last RAB meeting were very conservative numbers that just take the type of contamination and a guess on volume based on very early knowledge. Mr. Robinson asked for a percentage complete on the investigations. Mr. Hunt said that the investigations are about 75% funded. He also said that the $7.5 million just approved for remediation would only last through 1 October 1996. Then more funds would be required. Mr. Hunt said he was hoping for about $15 million next year.

7. Update of Redevelopment Authority Actions.

Mr. Virgil Johnston of the RDA gave a brief update on recent actions. The RDA is still negotiating with Babcock & Wilcox, CMMC and CSI. Those three companies will probably take over the entire Controlled Industrial Area (CIA).

The Border Patrol has requested portions of the Southern end of the Base and another tenant is looking at the area. The Southern end will be pretty well filled up. The Northern end beyond the Noisette Creek is being saved until something really worthwhile is found. Multiple people are looking at the same buildings on the Base.

The RDA is now trying to determine the condition of the infrastructure on the Base. The SC Electric and Gas Company will likely take over the electrical utilities. The Charleston Public Works Department is taking over the water system. Whoever the RDA negotiates with to take over the roads will probably take over the storm drains also. The steam plant will probably be dismantled in a couple of years and the area converted to natural gas.

Mr. Van Robinson asked when the Base security would be discontinued and the Base would opened to the public. Mr. Johnston said that he thought it would probably be in April 1996 when the Base officially closes. Mr. Robinson also asked what was being considered for the Northern end and the area around the Golf Course. Mr. Johnston replied that Mr. Doug McKay out of Columbia is working on that reuse. They are looking at a steel company and another company. They are trying to find someone who will come in and put money ($50/$60 million) into capital improvements. Mr. Johnson also said that nothing was being done with the housing or the Golf Course at this time. The Army is looking at some of the housing. North Charleston would like to have the big house (Quarters A) as a museum and they may get it. The RDA and North Charleston are negotiating on the fire and police requirements trying to get them on the Base.

Mr. Arthur Pinckney asked if the RDA was meeting with the SBA. Mr. Johnston said that one small business operation was going into Building 76. Charleston

County is putting some small businesses into that area. Also, the Shipyard workers are wanting to open up about 10 or 12 small businesses in the Shipyard area.

8. The Process of Getting to a Lease.

Captain Augustin gave a brief on the steps required to reach a Finding of Suitability to Lease (FOSL). When the Navy gets a request for a lease, four areas have to be considered concurrently. They are: Availability - FOSL - Survey - Lease.

The first is obvious. The Navy has to see if the property is occupied or available for lease. The next thing is the Finding of Suitability to Lease. This process is time consuming. It involves the Navy, SCDHEC and EPA. Everybody has gotten together to talk about how to make the process go more quickly, but there are some very basic things that have to be done to reach a FOSL. We have to gather all of the environmental information in the files about a particular building so that it can be reviewed. The information is then put into a document called an Environmental Baseline Survey for Lease (EBSL). Once that work is done, the FOSL document itself can be written. It only amounts to about two pages, but it is an analysis of all of the data, stating whether or not the building can be leased. Also, if there are any Environmental restrictions that would be put into the lease, these restrictions are stated in the FOSL. All of this then goes to the State and Federal regulator level for review and comes out as, hopefully, a successful Finding of Suitability to Lease.

Mrs. Mallette-Pratt asked who gets the revenue from the sub-leases. Captain Augustin asked Mrs. Jeri Johnson of the RDA to respond. Mrs. Johnson said that the RDA gets the revenue. It may or may not have to be shared with the Navy. The RDA will plow the revenue back into operating and maintaining the Base. It will also go into capital improvements

9. Other Business.

Captain Augustin called attention to a Post and Courier article written by Terry Joyce. It was on the Zone H Report. The Report reveals no major hazards. Captain Augustin also referred back to last month's discussion about whether sampling or cleanup should be done first; that is, which is more valuable to the RDA. In Mr. Hunt's update it was reported that there is now a mixture in our funds of some of each. It will be a continuing topic where the Navy will look for the advice of RAB members as to how they see the difference between sampling and cleanup and their importance as we proceed along in supporting specific things that the RDA is going to bring forward for true redevelopment - people that have money and will invest in facilities on the Base.

An EPA handout which was available at the meeting is attached to these minutes.

10. Adjournment.

It was announced that the next meeting is scheduled for 10 October 1995 at the Best Western Atrium Inn on Ashley Phosphate Road. The meeting will be from 7:00 p.m. to 9:00 p.m. with a Social Hour beginning at 6:00 p.m.

Minutes approved by: _____ _____

J.H. AUGUSTIN	**DON HARBERT**
CAPT, CEC, USN	**Co-Chairman**
Co-Chairman	

Attachments to Minutes:

(1) Addendum to Minutes for August
(2) RAB Concerns
(3) Monthly Progress Report
(4) EPA Handout

ADDENDUM TO 8 AUGUST 1995 MINUTES
RESTORATION ADVISORY BOARD

Mrs. Wannetta Mallette-Pratt made the statement that the residents of North Charleston wanted the Base cleaned up as quickly as possible and put on the City's tax roles.

Mrs. Jeri Johnson of the RDA said that the RDA may be interested in long term leasing.

The above statements are included in the minutes at the request of Mrs. Mallette-Pratt.

ATTACHMENT (1)

September 12, 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD

Summary of RAB Member Concerns, May 9, 1995

Hard facts on Sampling Results
Current CNSY Workers used on Cleanup
RDA Changes, how is cleanup affected?
Who will provide Base Security?
Better site for RAB meetings
RAB involvement on improving approaches to Base
How do local residents benefit from cleanup? (enviro justice issue)
Write Congressmen on budget cuts
Navy brief closure progress
Jobs for the Community
Graphic needed- Base Reusers mapped
Asbestos Sheeting on Bldgs
Will RDA have a member on the RAB?
RAB tour Base sites

From RAB Planning Session of June 13, 1995

Suggestions for improvement

See another RAB
Establish RAB timeline
RAB member input on agendas
Sampling demo
Technical assistance
Increasing comfort level of
other RAB members
Make RAB feel important

ATTACHMENT (2)

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR AUGUST 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Investigation only, no change from previous)
  Fully funded: Zones A, B, C, H, I
  Funded through December of 1995: Zone E
  Funded for RFI Work Plans only: Zones J, L, D, F, G
  Remainder of Groundwater monitoring in Zone H

  FY 96 Budgeted
  $1.33 Million remainder of Zone E
  $7.5 Million targeted for Remedial Action

- Remaining to fund for investigation (through Corrective Measures Study)
  Zones J, L, D, F, G implementation
  All portions of investigation for Zone K

PROGRESS FOR AUGUST

- Zone E work plan was approved on August 10. Final submittal has been made. Geophysical work to locate utilities has begun.

- Zone A and B work plan has been approved final submittal is being prepared.

- Zone H Draft Final RFI report is being review by regulatory agencies.

♦ No additional sites were discovered in August. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	205
Total	400
No Further Investigation at this time	165
Total to investigate	234

♦ Data is being reviewed for Zone C and I field work, geotechnical information is currently being collected.

♦ 3rd Quarter sampling in Zone H is underway, this task has been subcontracted to GEL.

♦ The existing monitoring wells in Zone A have been redeveloped, subsurface utilities are being cleared for soil sampling next week.

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Air	Wipe
Zone H	800/800	292/292	13/13	4/4		0
Zone I	204/204	55/55	22/22	5/5		18/18
Zone C	238/238	31/31	13/13	14/14		0
Zone A & B	0/196	0/34	0/2			
Zone E	152/767	0/192	0/38		1/7	0/34

PROJECTED ACTIVITY FOR SEPTEMBER

♦ Begin groundwater monitoring well installation in Zone E. Continue to clear subsurface utilities and conduct soil samping. Priority is being given to buildings and areas of interest to the RDA.

♦ Begin field work in Zones A & B.

♦ Resolve regulatory comments on Zones J and L work plans.

♦ Continue work on Zone C and I RFI report (Due 18 Dec and 11 Dec respectively).

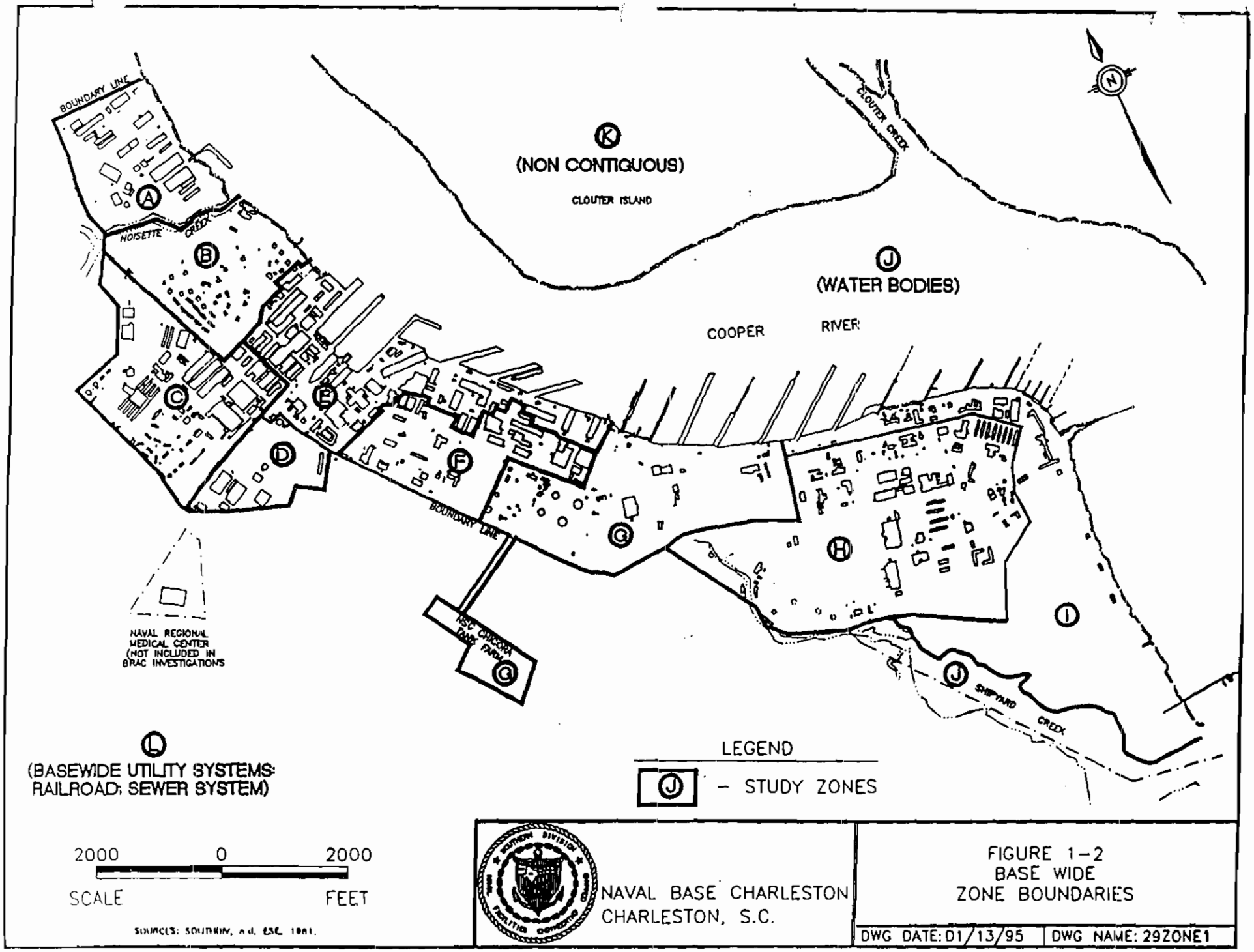


FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES

United States
Environmental Protection
Agency

Region IV
Office of Public Affairs
345 Courtland St. NE
Atlanta, Georgia 30365

Environmental News

(404) 347-3004

EPA CLEANUP OF HAZARDOUS WASTE SITES IN THE SOUTHEAST THREATENED AUGUST 1995

The U.S. Environmental Protection Agency has proposed reforms that would make Superfund faster, fairer and more efficient to provide better health protection to the one in four Americans who live near hazardous waste sites. The President's budget request -- $7.4 billion in fiscal year 1996 for The Environmental Protection Agency, which begins on October 1, 1995, is both fiscally responsible and protective of human health, and the environment and continues our reform efforts. But pending Congressional proposals threaten EPA's efforts to protect public health and the environment at numerous hazardous waste sites in the southeast and around the country.

The House Appropriations bill cuts funding of hazardous waste site cleanup by $560 million, including a $115 million in Superfund enforcement -- cuts that would slow the pace of cleanup and weaken efforts to enforce the cleanup law. Congressional proposals for reauthorization of the Superfund program also significantly weaken current protections to public health under the law. The taxing authority for Superfund expires on December 31, 1995. Taken together, the budget cuts and the proposed changes to the Superfund law would:

- **Slow or halt cleanups in some communities.** The President's budget would allow EPA to continue performing and overseeing cleanups. In contrast, the House Appropriations and Superfund reauthorization proposals would slow, halt, and even compromise those cleanups. Approximately 52 cleanup projects in the southeast alone are threatened by the House budget proposal. In the event that Congress does not pass a workable reauthorization bill, all cleanups under the Superfund program will come to a halt at the end of this calendar year.

- **Makes taxpayers pay for pollution, rather than polluters.** Congressional Superfund reauthorization proposals would repeal polluters' liability for disposal of hazardous materials that occurred before 1980 or 1987. This would place the responsibility for as much as $1.6 billion of cleanups on the shoulders of taxpayers instead of polluters.

ATTACHMENT (4)

EPA's ability to ensure that all citizens are equally protected from the risks posed by contamination of Superfund sites will be severely curtailed because the House Appropriations bill reduces the Superfund enforcement budget by 60%. Last year, $200 million was recovered from polluters, money that was returned to the public Treasury on behalf of the American people.

- **Impact State hazardous waste site cleanup programs.** The President's budget request strengthens states' cleanup programs by doubling funding to develop state program capabilities. However, the House Appropriations 36% cut in hazardous waste cleanup funding will leave states unable to clean up many sites within their boundaries, delay cleanups, and make it difficult to promptly return contaminated property to productive economic use. The reauthorization proposals do not establish funding for state run hazardous waste site cleanup programs, or ensure national consistency of hazardous waste site cleanup standards, which may lead to less protective standards and greater risk to public health.

- **Stall efforts to protect communities' health.** Pending Congressional proposals for Superfund reauthorization may result in less protective cleanups over the long term by completely blocking the Administrations's goal of treating the worst sites first. Some of the reauthorization proposals would use cost when selecting site remedies to override other important considerations such as public health protection and community acceptance. This approach could burden future generations with the cost of cleanups by leaving waste in place, which could lead to the spread of contamination and more expensive cleanups in the future. The Administration balances cost with other important factors, such as risk to public health, community acceptance, long term health protection and reliability of the remedy.

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
CHARLESTON, S.C. 29408-6100

5090
Ser 106.2/0825
08 DEC 1995

Mr. G. Randall Thompson
Director, Division of Hazardous and Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF MONTHLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Monthly RFI Progress Report for the Naval Base Charleston Complex.

Enclosure (1) is the Monthly RFI Progress Report for the month of November, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

for R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office

Encl:
(1) Monthly RCRA Facility Investigation Report - November, 1995

Copy to:
SCDHEC (Bowers)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 November 1995 To 31 November 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 1994 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of November 1995.

II. PORTION OF THE RFI COMPLETED

- The proposed page change revisions to the *Comprehensive RFI Work Plan* were completed on 30 November 1995.

- Installation of the deep wells in Zones A and B was completed during the current reporting period. Development of the monitoring wells installed in Zones A and B was completed. Prior to sampling the wells will be allowed to recover for 2 weeks as specified in the RFI work Plan.

- Preparation of the *Draft Zone C RFI Report* continued.

- The *Draft Zones D, F, and G RFI Work Plan* was submitted to the Navy for review and comment.

- Field work continued in Zone E at a number of sites. Attachment A contains a summary of the work completed to date.

- Comments from SCDHEC and EPA regarding the *Draft-Final Zone H RFI Report* were received on 27 November 1995. Revisions to the document are currently underway.

- Preparation of the *Draft Zone I RFI Report* continued.

- The *Final Zone J RFI Work Plan* was submitted to SCDHEC and EPA for review on 22 November 1995.

III. SUMMARIES OF FINDINGS

Attachment B contains summarized analytical reports for samples collected in Zones A, B, and E. The data sheets contain "hits only" for sites where it appears contaminant concentrations will frequently exceed RBCs.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The minutes of the October 1995 meeting are provided as Attachment C. The minutes of the November 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

The practice of scaling back the analytical parameters based on compounds detected in the first of the four quarterly groundwater sampling events has been questioned by SCDHEC. The issue is slated for further discussion during upcoming project team meetings.

The geology encountered during the installation of deep wells in Zones B and E has brought the need for deep wells at several locations into question. During the attempted installation of several wells, the Ashley Formation (formerly called the Cooper Marl) was found at less than 25 feet below ground surface. If a "deep" well were to be installed at that depth with a 10 foot length of screen as prescribed in the *Comprehensive RFI Work Plan* it would result in a screened interval which overlaps the paired shallow well. Where such conditions have been encountered to date the deep well boring has been abandoned. A proposal to modify the *Comprehensive RFI Work Plan* to provide contingency measures such as a shorter screen or abandonment of those deep locations affected has been made. The topic is scheduled for further discussion at an upcoming project team meeting.

The current *Corrective Action Management Plan* (CAMP) states that the RFI reports for Zones B, C, and I are due during the month of December 1995. The Zone B due date does not

reflect the actual field work start date of 10 August 1995 which was based on regulatory agency approval of the plan. To accommodate the delayed approval of the plan it has been proposed that the Zone B report be incorporated into the Zone A report which is due in April 96. The current CAMP built in a delay between the submittal of the Zone H RFI report and the Zone C and I reports which would allow "lessons learned" in Zone H to be considered and thereby reduce or eliminate repetitive comments. The draft reports for C and I have been proposed to be submitted 30 days after the submittal of the *Final Zone H RFI Report* which is due on 27 December 1995.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Preparation of the draft RFI reports for Zones C and I will continue.
- The *Draft-Final Zones D, F, and G RFI Work Plan* will be submitted to SCDHEC and EPA on 14 December for review and comment.
- Funding to write the Zone K RFI work plan is anticipated to be awarded on 15 December 1995. If funding is awarded it is expected that a scoping meeting will follow shortly thereafter.
- The *Final Zone H RFI Report* is due to be submitted to SCDHEC and EPA on 27 December 1995.

Field Activities:

- Sampling of the monitoring wells in Zones A and B is anticipated to begin the second week of December.
- Quarterly groundwater sampling will begin in Zones C and I.

- Soil sampling efforts will continue in Zone E. In addition, the installation of both deep and shallow wells will continue.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and EPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Status Report — Zone E RFI
Summary of Field Activities
August 21 - November 30, 1995

The following summary details work completed and work remaining at each site. Work remaining does not take into account the additional work which will be required to define the extent of any contamination detected in the initial phase of the project. A total of 92 shallow groundwater monitoring wells and 11 deep wells have been installed. A total of 571 soil, 28 sediment, 74 wipe, 15 air, 4 core, and 23 surface water samples have been collected.

SWMU 5 and 18, AOC 605 — Pad 1278
Data will be shared between the SWMUs and AOC due to the close proximity of these sites.

SWMU 5
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) adjacent to SWMU 5. No further action is scheduled at this time.

SWMU 18
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and two shallow monitoring well locations (4 samples) adjacent to SWMU 18. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 605
Work Completed — Soil sampling activities have been completed. Soil samples were collected from eight soil boring (14 samples) and three shallow monitoring well locations (6 samples) adjacent to Pad 1278. A sample could not be collected from the second interval at one soil boring and one shallow monitoring well location due to obstructions in the borings. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells adjacent to Pad 1278.

SWMUs 21 and 54 — Building 1275
Data will be shared between these SWMUs due to the close proximity of these sites.

SWMU 21
Work Completed — Work completed for this site is to be shared with SWMU 54. All samples were identified with a SWMU 54 identification.

SWMU 54
Work Completed — Soil sampling activities have been completed. Soil samples were collected from 37 soil boring (74 samples) and three shallow monitoring well locations (6 samples) in the area adjacent to former Building 1275. Four sediment samples were also collected from four locations adjacent to the site in the Cooper River. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells. Collect 27 soil samples across the site for the purpose of defining the thickness of the abrasive blast media.

SWMUs 22 and 25, AOC 554 — Between Buildings 5 and 44
Data will be shared between this AOC and SWMU due to the close proximity of these sites.

SWMU 22
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

AOC 554
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

SWMU 25
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMUs 23 and 63, AOCs 540, 541, 542, and 543 — Building 226
Data will be shared between several AOCs and SWMUs due to the close proximity of these sites.

SWMU 23
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings locations (4 samples) and from one shallow monitoring well location (2 samples) outside of Building 226. One shallow and one deep monitoring well have been installed outside of the building.

Work Remaining — Sample one shallow monitoring well one deep well outside the building.

SWMU 63
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring and two shallow well locations (6 samples) outside of Building 226. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Sample the two shallow monitoring wells outside the building.

AOC 540
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside of Building 226. No further action is scheduled at this time.

AOC 541
Work Completed — Soil sampling activities have been completed. A soil sample was collected from one soil boring (1 sample) in the area between Buildings 6 and 226. A sample could not be collected from the second interval due to an obstruction in the boring. Data from this boring will be shared with AOC 542 due to the close proximity of these sites. No further action is scheduled at this time.

AOC 542
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and four shallow monitoring well locations (7 samples) in the area between Buildings 6 and 226. A sample could not be collected from the second interval at one soil boring and one well location due to subsurface obstructions. Four shallow monitoring wells have been installed in the area between Buildings 6 and 226.

Work Remaining — Sample the four shallow monitoring wells in the area between Buildings 6 and 226. Data from one soil boring and one monitoring well location will be shared with AOC 538 due to the close proximity of these sites.

AOC 543
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside and from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 226. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the shallow monitoring well outside the building.

SWMU 53, AOC 526 — Building 212
Data from this AOC and SWMU will be shared due to the close proximity of these sites.

SWMU 53
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) and one shallow monitoring well location (2 samples) adjacent to Building 212. One shallow monitoring wells have been installed.

Work Remaining — Sample the shallow monitoring well.

AOC 526
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seven soil boring (14 samples) and two shallow monitoring well locations (3 samples) adjacent to Building 212. One shallow monitoring well has been installed.

Work Remaining — Install one shallow and one deep monitoring well adjacent to the building. Sample the two shallow and one deep monitoring wells.

SWMU 65, AOC 544 and 546 — Building 221
Data will be shared between these AOCs and SWMU due to the close proximity of these sites.

SWMU 65
Work Completed — Soil samples have been collected from six shallow monitoring well locations (11 samples) outside of Building 221. A soil sample could not be collected from the second interval of one soil boring due to an obstruction in the boring. Four shallow monitoring wells have been installed outside of the building.

Work Remaining — Install two more shallow monitoring wells and one deep monitoring well and sample six shallow monitoring wells and one deep monitoring well outside the building.

AOC 544
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (8 samples) inside of Building 221. No further action is scheduled at this time.

AOC 546
Work Completed — An attempt to collect a soil sample from one corner of former Building 1025 was unsuccessful due to subsurface obstructions encountered below the concrete surface. Samples collected from SWMU 65 and AOC 544 will share data with this site due to the proximity of these sites and should be sufficient to determine the presence of any contamination which may have produced by AOC 546. One sediment sample was collected from a drain in the corner of former Building 1025. No further action is scheduled at this time.

SWMU 67 — Building 3

Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and one monitoring well location (2 samples) inside Building 3 and one shallow monitoring well location (2 samples) outside the building. Air sampling for mercury was completed using a Jerome Mercury Vapor Analyzer. Wipe samples were collected at 8 locations (4 in the former mercury gauge room, 4 in the most recent gauge room). Two shallow monitoring wells have been installed, one inside the building and one outside the building.

Work Remaining — Sample the two shallow monitoring wells.

SWMU 70, AOCs 548 and 549 — Building 5

SWMU 70

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings and two shallow monitoring well locations (8 samples) between Buildings 3 and 5. Two shallow monitoring wells have been installed between Buildings 3 and 5.

Work Remaining — Sample the two shallow monitoring wells between Buildings 3 and 5. Install and sample one deep monitoring well which was relocated from AOC 549.

AOC 548

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) inside of Building 5. No further work is scheduled at this time.

AOC 549

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 5 and four soil borings and three shallow monitoring well locations (14 samples) in the alley between Buildings 3 and 5. Three shallow monitoring wells have been installed in the alley between the buildings. One deep well proposed for this site was not accessible; therefore, the location of this well was moved to SWMU 70.

Work Remaining — Sample the three shallow monitoring wells in the alley between Buildings 3 and 5.

SWMU 81 — Former Building 1245

Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations in the Cooper River, adjacent to the site. Three concrete core samples were collected from the location of the former building. No further action is scheduled at this time.

SWMUs 83 and 84, AOC 574 — Building 9
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 83
Work Completed — Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Soil samples were collected from one shallow monitoring well location (2 samples) outside the building. One shallow monitoring well has been installed.

Work Remaining — Collect soil samples from six soil boring locations inside and one shallow monitoring well location outside of Building 9. Install one shallow well and sample the two shallow monitoring wells outside of the building.

SWMU 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and two shallow monitoring well locations (4 samples) adjacent to Building 9. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 574
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring (4 samples) and three shallow monitoring well locations (6 samples) adjacent to Building 9. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells and install and sample one deep monitoring well.

SWMUs 87 and 172, AOC 564 — Building 80
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 87
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) outside of Building 80, at the former location of the <90 day storage area. No further action is scheduled at this time.

SWMU 172
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and two monitoring well locations (12 samples) outside of Building 80, at the former location of the steam cleaning operations. One sediment sample was collected from the drain outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 564
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) outside of Building 80, at the location of the oil/water separator. No further action is scheduled at this time.

SWMU 97 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 236. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 236.

SWMU 100 — Building 218
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) at the location of the former satellite accumulation area. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 218.

SWMU 102 — Building 79
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMU 106, AOC 603 — Dry Dock #3
Data will be shared between this AOC and SWMU due to their close proximity.

SWMU 106
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring locations (4 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

AOC 603
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

SWMU 145 — Building 13A
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMU 170 and 170
Work Completed — These SWMUs have not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMU 173 — Building 1297
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside of Building 1297. Three sediment samples were also collected from three drains outside of the building. No further action is scheduled at this time.

AOC 525 — Building 223
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 528 — Building 1453
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) outside of Building 1453. One shallow monitoring well was installed outside the building.

Work Remaining — Sample the one shallow monitoring well outside the building.

AOC 530 — Building 35
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 531 — Building 459
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) around Building 459. Wipe sampling activities have been completed with 4 wipe samples collected. One surface soil sample will be collected and shared with AOC 530. No further action is scheduled at this time.

AOCs 538 and 539 — Building 6
AOC 538
Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from seven soil borings (13 samples) inside the building and one shallow monitoring well location (2 samples) outside the building. A sample could not be collected from

the second interval at one soil boring location due to an obstruction in the boring. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with two samples collected each 24 hour time period (10 samples with one blank). One shallow and one deep monitoring well have been installed outside of Building 6.

Work Remaining — Sample one shallow and one deep monitoring well outside the building. Data from one soil boring and one monitoring well location will be shared with AOC 542 due to the close proximity of these sites.

AOC 539
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside and from one shallow monitoring well location (2 samples) outside of Building 6. One sediment sample was also collected from a drain inside the building. Wipe sampling activities have been completed with 6 wipe samples collected (3 random floor, 3 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with one sample collected each 24 hour time period (5 samples with one blank). Note: 15 samples with two blanks for complete coverage of AOC 538 and 539 (Building 6 inclusive). One shallow monitoring well has been installed outside the building.

Work Remaining — Sample one shallow monitoring well and install and sample one deep monitoring well outside the building.

AOC 550 — Former Building 1111
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 551 and 552 — Building 1119
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 551
Work Completed — Soil sampling activities have been completed. Soil samples were collected at four soil borings (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 1119. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells, install and sample one deep monitoring well outside of Building 1119.

AOC 552
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) at the location of former Building 1030. An attempt to collect soil samples from a fourth soil boring was unsuccessful due to subsurface obstructions in the area of the boring. No further action is scheduled at this time.

AOC 555 — Former Building 29
Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations adjacent to the site in the Cooper River. No further action is scheduled at this time.

AOC 556 — Dry Dock Discharges
Work Completed — Sampling activities have been completed. Nine sediment samples were collected from 9 locations in the Cooper River adjacent to Dry Docks 1, 2, 3, 4 and 5. In addition, 23 surface water samples were collected from the same 9 locations at which the sediment samples were collected. Samples were collected from one to three different intervals at each location, depending on the depth of water. No further action is scheduled at this time.

AOC 558 — Building 77
Work Completed — Four wipe samples have been collected from the substation inside of Building 77.

Work Remaining — Collect four concrete core samples from the area outside the substation.

AOCs 559, 560 and 561 — Building 32
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 559
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seventeen soil borings (34 samples) and five shallow monitoring well locations (10 samples) in the area surrounding Building 32. Five shallow and one deep monitoring wells have been installed. Wipe sampling activities have been completed with 9 wipe samples collected inside of Building 32.

Work Remaining — Sample the five shallow and one deep monitoring wells and install and sample two more deep monitoring wells.

AOC 560
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) adjacent to Building 32. No further action is scheduled at this time.

AOC 561
Work Completed — Soil samples have been collected from four soil borings (8 samples) adjacent to Building 451-B.

Work Remaining — Collect soil samples from one soil boring inside of Building 451-B.

AOC 562 — Building 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) adjacent to Building 84.

Work Remaining — Collect 4 wipe samples from inside the building.

AOC 563 — Former Building 37
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 566 — Building 194
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) outside of Building 194. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of the building.

AOC 567 — Building 75
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (7 samples) outside of Building 75. A sample could not be collected from the second interval at one soil boring due to an obstruction in the boring.
Four wipe samples have also been collected from inside the building. No further action is scheduled at this time.

AOCs 569, 570 and 578 — Building 25
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 569
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and two shallow monitoring well locations (4 samples) at the location of the former oil storehouse and gas station. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 570
Work Completed — Soil samples have been collected from six soil borings (12 samples) and two shallow monitoring well locations (4 samples) outside of Building 25. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Collect soil samples from six soil borings and one shallow monitoring well location. Sample the two shallow monitoring wells. Install and sample one shallow and two deep monitoring wells.

AOC 578
Work Completed — No work has been completed at this site.
Work Remaining — Collect soil samples from six soil borings inside of Building 25.

AOC 571 — Building 177
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 572 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and three shallow monitoring well locations (6 samples) outside of Building 177, at the former location of the motor area. Three shallow monitoring wells have been installed in the parking lot outside of Building 177. One sediment sample was also collected from a drain in the parking lot outside the building.

Work Remaining — Sample the three shallow monitoring wells outside the building.

AOC 573 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) outside Building 177. Two sediment samples were collected from drains adjacent to Building 177. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of Building 177.

AOC 576 — Building 80
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 80 and two monitoring well locations (4 samples) outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of the building.

AOC 579 — Building 1035
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 1035. No further action is scheduled at this time.

AOC 580 — Building 10
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 10. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of Building 10.

AOC 583 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and three shallow monitoring well locations (6 samples) outside of Building 236. Three shallow monitoring wells have been installed outside of Building 236.

Work Remaining — Sample the three shallow monitoring wells outside the building and install and sample one deep monitoring well outside of Building 236.

AOC 586 — Former Building 1014
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples). One shallow monitoring well was installed at the location of former Building 1014.

Work Remaining — Sample the one shallow monitoring well.

AOC 590 — Building 79
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 592 — Former Building 1225
Work Completed — No work has been completed at this site.

Work Remaining — Collect soil samples from four soil boring locations at the location of former Building 1225.

AOC 596 — Building 101
Work Completed — Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) outside the building, and one soil boring (2 samples) and four

shallow monitoring well locations (8 samples) inside the building. Soil samples could not be collected from a second soil boring location inside the building due to subsurface obstructions. Four shallow monitoring well have been installed outside the building.

Work Remaining — Sample the four shallow monitoring wells and install and sample two deep monitoring wells outside of the building.

AOC 597 — Building 91
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 91. Three wipe samples were collected from inside the building. One concrete core sample was collected outside the building. No further action is scheduled at this time.

AOC 598 and 599 — Building 39, Pier J
AOC 598
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) at Pier J. One sediment sample was collected from a drain at the pier. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well at Pier J.

AOC 599
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (6 samples) and one shallow monitoring well location (2 samples) adjacent to Building 39. A soil sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings. One sediment sample was collected from a drain outside of Building 39. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 39.

AOC 602 — Building 95
Work Completed — Wipe sampling activities have been completed. Wipe samples were collected from four locations inside the building.

Work Remaining — Collect soil samples from four soil borings outside Building 95.

AOC 604 — Building 96
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete Core	Surface Water	Groundwater
AOC 526 - Bldg 212	17	N/A	N/A	N/A	N/A	N/A	0
AOC 528 - Bldg 1453	8	N/A	N/A	N/A	N/A	N/A	0
AOC 531 - Bldg 459	6	N/A	4	N/A	N/A	N/A	N/A
AOC 538 - Bldg 6	15	N/A	16	10	N/A	N/A	0
AOC 539 - Bldg 6	6	1	6	5	N/A	N/A	0
AOC 540 - Bldg 226	2	N/A	N/A	N/A	N/A	N/A	0
AOC 541 - Bldg 226	1	N/A	N/A	N/A	N/A	N/A	N/A
AOC 542 - Bldg 226	12	N/A	N/A	N/A	N/A	N/A	0
AOC 543 - Bldg 226	8	N/A	N/A	N/A	N/A	N/A	0
AOC 544 - Bldg 221	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 546 - Bldg 221	N/A	1	N/A	N/A	N/A	N/A	N/A
AOC 548 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 549 - Bldg 5	20	N/A	N/A	N/A	N/A	N/A	0
AOC 551 - Bldg 1119	12	N/A	N/A	N/A	N/A	N/A	0
AOC 552 - Bldg 1119	6	N/A	N/A	N/A	N/A	N/A	N/A
AOC 554 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 555 - Bldg 29	N/A	2	N/A	N/A	N/A	N/A	N/A
AOC 556 - Dry Docks	N/A	9	N/A	N/A	N/A	23	N/A
AOC 558 - Bldg 77	N/A	N/A	4	N/A	N/A	N/A	N/A
AOC 559 - Bldg 32	44	N/A	9	N/A	N/A	N/A	0
AOC 560 - Bldg 32	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 561 - Bldg 32	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 562 - Bldg 84	8	N/A	0	N/A	N/A	N/A	N/A
AOC 564 - Bldg 80	6	N/A	N/A	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete Core	Surface Water	Groundwater
AOC 566 - Bldg 194	10	N/A	N/A	N/A	N/A	N/A	0
AOC 567 - Bldg 75	7	N/A	4	N/A	N/A	N/A	N/A
AOC 569 - Bldg 25	10	N/A	N/A	N/A	N/A	N/A	0
AOC 570 - Bldg 25	16	N/A	N/A	N/A	N/A	N/A	0
AOC 572 - Bldg 177	16	1	N/A	N/A	N/A	N/A	0
AOC 573 - Bldg 177	10	2	N/A	N/A	N/A	N/A	0
AOC 574 - Bldg 9	10	N/A	N/A	N/A	N/A	N/A	0
AOC 576 - Bldg 80	10	N/A	N/A	N/A	N/A	N/A	0
AOC 579 - Bldg 1035	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 580 - Bldg 10	12	N/A	N/A	N/A	N/A	N/A	0
AOC 583 - Bldg 236	14	N/A	N/A	N/A	N/A	N/A	0
AOC 586 - Bldg 1014	8	N/A	N/A	N/A	N/A	N/A	0
AOC 596 - Bldg 101	22	N/A	N/A	N/A	N/A	N/A	0
AOC 597 - Bldg 91	8	N/A	3	N/A	1	N/A	N/A
AOC 598 - Pier J	8	1	N/A	N/A	N/A	N/A	0
AOC 599 - Bldg 39	8	1	N/A	N/A	N/A	N/A	0
AOC 602 - Bldg 95	0	N/A	4	N/A	N/A	N/A	N/A
AOC 603 - DD3	10	N/A	N/A	N/A	N/A	N/A	0
AOC 605 - 1278	20	N/A	N/A	N/A	N/A	N/A	0
SWMU 5 - Pad 1278	6	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 18 - 1278	9	N/A	N/A	N/A	N/A	N/A	0
SWMU 21 - Bldg 1275	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 22 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 23 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete Core	Surface Water	Groundwater
SWMU 53 - Bldg 212	4	N/A	N/A	N/A	N/A	N/A	0
SWMU 54 - Bldg 1275	43	4	N/A	N/A	N/A	N/A	N/A
SWMU 63 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 65 - Bldg 221	11	N/A	N/A	N/A	N/A	N/A	0
SWMU 67 - Bldg 3	14	N/A	8	Ran-dom	N/A	N/A	0
SWMU 70 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	0
SWMU 81 - Bldg 1245	N/A	2	N/A	N/A	3	N/A	N/A
SWMU 83 - Bldg 9	2	N/A	16	0	N/A	N/A	0
SWMU 84 - Bldg 9	12	N/A	N/A	N/A	N/A	N/A	0
SWMU 87 - Bldg 80	2	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 97 - Bldg 236	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 100 - Bldg 218	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 106 - DD3	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 172 - Bldg 80	12	1	N/A	N/A	N/A	N/A	0
SWMU 173 - Bldg 1297	4	3	N/A	N/A	N/A	N/A	N/A
TOTAL	571	28	74	15	4	23	0

Note:
N/A indicates no samples were proposed for that particular matrix.

SW846-VOA						
	SAMPLE ID ------->	039-S-B004-02				
	ORIGINAL ID ----->	039SB00402				
	LAB SAMPLE ID --->	L5506-10				
	ID FROM REPORT -->	039SB00402				
	SAMPLE DATE ----->	10/02/95				
	DATE ANALYZED --->	10/12/95				
	MATRIX ---------->	Soil				
	UNITS ---------->	UG/KG A				
CAS #	Parameter	L5506 NV				
74-87-3	Chloromethane					
75-01-4	Vinyl chloride					
74-83-9	Bromomethane					
75-00-3	Chloroethane					
75-69-4	Trichlorofluoromethane					
67-64-1	Acetone	14.				
75-35-4	1,1-Dichloroethylene					
75-15-0	Carbon disulfide					
75-09-2	Methylene chloride					
156-60-5	trans-1,2-Dichloroethene					
108-05-4	Vinyl acetate					
75-34-3	1,1-Dichloroethane					
78-93-3	2-Butanone (MEK)	2.3 J				
156-59-2	cis-1,2-Dichloroethylene					
67-66-3	Chloroform					
71-55-6	1,1,1-Trichloroethane					
56-23-5	Carbon tetrachloride					
107-06-2	1,2-Dichloroethane					
71-43-2	Benzene					
79-01-6	Trichloroethene					
78-87-5	1,2-Dichloropropane					
75-27-4	Bromodichloromethane					
110-75-8	2-Chloroethylvinyl ether					
108-10-1	4-Methyl-2-Pentanone (MIBK)					
10061-01-5	cis-1,3-Dichloropropene					
108-88-3	Toluene					
10061-02-6	trans-1,3-Dichloropropene					
591-78-6	2-Hexanone					
79-00-5	1,1,2-Trichloroethane					
127-18-4	Tetrachloroethene					
124-48-1	Dibromochloromethane					
108-90-7	Chlorobenzene					
100-41-4	Ethylbenzene					
1330-20-7	Xylene (Total)					
95-47-6	o-Xylene					
100-42-5	Styrene					
75-25-2	Bromoform					

SW846-DRO							
	SAMPLE ID ------->	039-S-8005-01					
	ORIGINAL ID ----->	039SB00501					
	LAB SAMPLE ID --->	L5506-47					
	ID FROM REPORT -->	039SB00501					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/20/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-6	TPH - Diesel Range Organics	150. X					

SW846-SVOA							
	SAMPLE ID ------->	039-S-B005-01					
	ORIGINAL ID ----->	039SB00501					
	LAB SAMPLE ID --->	L5506-27					
	ID FROM REPORT -->	039SB00501					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/16/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	UG/KG A					
CAS #	Parameter	L5506 NV					
108-95-2	Phenol						
111-44-4	bis(2-Chloroethyl)ether						
95-57-8	2-Chlorophenol						
541-73-1	1,3-Dichlorobenzene						
106-46-7	1,4-Dichlorobenzene						
100-51-6	Benzyl alcohol						
95-50-1	1,2-Dichlorobenzene						
95-48-7	2-Methylphenol (o-Cresol)						
108-60-1	2,2'-oxybis(1-Chloropropane)						
621-64-7	N-Nitroso-di-n-propylamine						
67-72-1	Hexachloroethane						
98-95-3	Nitrobenzene						
78-59-1	Isophorone						
88-75-5	2-Nitrophenol						
105-67-9	2,4-Dimethylphenol						
65-85-0	Benzoic acid						
111-91-1	bis(2-Chloroethoxy)methane						
120-83-2	2,4-Dichlorophenol						
120-82-1	1,2,4-Trichlorobenzene						
91-20-3	Naphthalene						
106-47-8	4-Chloroaniline						
87-68-3	Hexachlorobutadiene						
59-50-7	4-Chloro-3-methylphenol						
91-57-6	2-Methylnaphthalene						
77-47-4	Hexachlorocyclopentadiene						
88-06-2	2,4,6-Trichlorophenol						
95-95-4	2,4,5-Trichlorophenol						
91-58-7	2-Chloronaphthalene						
88-74-4	2-Nitroaniline						
131-11-3	Dimethylphthalate						
208-96-8	Acenaphthylene	730. J					
606-20-2	2,6-Dinitrotoluene						
99-09-2	3-Nitroaniline						
83-32-9	Acenaphthene	300. J					
51-28-5	2,4-Dinitrophenol						
100-02-7	4-Nitrophenol						

SW846-SVOA			
	SAMPLE ID ------->	039-S-B005-01	
	ORIGINAL ID ----->	039SB00501	
	LAB SAMPLE ID --->	L5506-27	
	ID FROM REPORT -->	039SB00501	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/16/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
132-64-9	Dibenzofuran		
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenylphenylether		
86-73-7	Fluorene	320.	J
100-01-6	4-Nitroaniline		
534-52-1	2-Methyl-4,6-Dinitrophenol		
86-30-6	N-Nitrosodiphenylamine		
101-55-3	4-Bromophenylphenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	6500.	
120-12-7	Anthracene	1100.	
86-74-8	Carbazole	960.	
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene	16000.	E
129-00-0	Pyrene	11000.	
85-68-7	Butylbenzylphthalate		
91-94-1	3,3'-Dichlorobenzidine		
56-55-3	Benzo(a)anthracene	4000.	
218-01-9	Chrysene	6900.	
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)		
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene	6200.	
207-08-9	Benzo(k)fluoranthene	3800.	
50-32-8	Benzo(a)pyrene	3500.	
193-39-5	Indeno(1,2,3-cd)pyrene	2700.	
53-70-3	Dibenzo(a,h)anthracene	950.	
191-24-2	Benzo(g,h,i)perylene	2900.	
95-53-4	o-Toludine	??????????	
1888-71-7	Hexachloropropene	??????????	
95-94-3	1,2,4,5-Tetrachlorobenzene	??????????	
608-93-5	Pentachlorobenzene	??????????	
91-59-8	2-Naphthylamine	??????????	
134-32-7	1-Naphthylamine	??????????	
297-97-2	Thionazin	??????????	

SW846-VOA							
	SAMPLE ID ------->	039-S-B005-02					
	ORIGINAL ID ----->	039SB00502					
	LAB SAMPLE ID --->	L5506-8					
	ID FROM REPORT -->	039SB00502					
	SAMPLE DATE ----->	10/02/95					
	DATE ANALYZED --->	10/12/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	UG/KG A					
CAS #	Parameter	L5506 NV					
74-87-3	Chloromethane						
75-01-4	Vinyl chloride						
74-83-9	Bromomethane						
75-00-3	Chloroethane						
75-69-4	Trichlorofluoromethane						
67-64-1	Acetone	25.					
75-35-4	1,1-Dichloroethylene						
75-15-0	Carbon disulfide						
75-09-2	Methylene chloride						
156-60-5	trans-1,2-Dichloroethene						
108-05-4	Vinyl acetate						
75-34-3	1,1-Dichloroethane						
78-93-3	2-Butanone (MEK)						
156-59-2	cis-1,2-Dichloroethylene						
67-66-3	Chloroform						
71-55-6	1,1,1-Trichloroethane						
56-23-5	Carbon tetrachloride						
107-06-2	1,2-Dichloroethane						
71-43-2	Benzene						
79-01-6	Trichloroethene						
78-87-5	1,2-Dichloropropane						
75-27-4	Bromodichloromethane						
110-75-8	2-Chloroethylvinyl ether						
108-10-1	4-Methyl-2-Pentanone (MIBK)						
10061-01-5	cis-1,3-Dichloropropene						
108-88-3	Toluene						
10061-02-6	trans-1,3-Dichloropropene						
591-78-6	2-Hexanone						
79-00-5	1,1,2-Trichloroethane						
127-18-4	Tetrachloroethene						
124-48-1	Dibromochloromethane						
108-90-7	Chlorobenzene						
100-41-4	Ethylbenzene						
1330-20-7	Xylene (Total)						
95-47-6	o-Xylene						
100-42-5	Styrene						
75-25-2	Bromoform						

SW846-DRO							
	SAMPLE ID ------->	039-S-B006-01					
	ORIGINAL ID ----->	039SB00601					
	LAB SAMPLE ID --->	L5506-45					
	ID FROM REPORT -->	039SB00601					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/20/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-6	TPH - Diesel Range Organics	48. X					

SW846-PEST

SAMPLE ID ------->	039-S-B006-01
ORIGINAL ID ----->	039SB00601
LAB SAMPLE ID --->	L5506-25
ID FROM REPORT -->	039SB00601
SAMPLE DATE ----->	10/02/95
DATE EXTRACTED -->	10/14/95
DATE ANALYZED --->	10/23/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506 NV
319-84-6	alpha-BHC	
319-85-7	beta-BHC	
58-89-9	gamma-BHC (Lindane)	
319-86-8	delta-BHC	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor epoxide	
5103-74-2	gamma-Chlordane	24.
959-98-8	Endosulfan I	
5103-71-9	alpha-Chlordane	10.
72-55-9	4,4'-DDE	9.3
50-29-3	4,4'-DDT	
60-57-1	Dieldrin	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	22.
7421-93-4	Endrin aldehyde	
1031-07-8	Endosulfan sulfate	
72-43-5	Methoxychlor	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	
57-74-9	Chlordane	
465-73-6	Isodrin	??????????
143-50-0	Kepone	??????????

SW846-VOA

SAMPLE ID ------->	039-S-B006-01
ORIGINAL ID ----->	039SB00601
LAB SAMPLE ID --->	L5506-5
ID FROM REPORT -->	039SB00601
SAMPLE DATE ----->	10/02/95
DATE ANALYZED --->	10/12/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506	NV
74-87-3	Chloromethane		
75-01-4	Vinyl chloride		
74-83-9	Bromomethane		
75-00-3	Chloroethane		
75-69-4	Trichlorofluoromethane		
67-64-1	Acetone	12.	J
75-35-4	1,1-Dichloroethylene		
75-15-0	Carbon disulfide		
75-09-2	Methylene chloride		
156-60-5	trans-1,2-Dichloroethene		
108-05-4	Vinyl acetate		
75-34-3	1,1-Dichloroethane		
78-93-3	2-Butanone (MEK)		
156-59-2	cis-1,2-Dichloroethylene		
67-66-3	Chloroform		
71-55-6	1,1,1-Trichloroethane		
56-23-5	Carbon tetrachloride		
107-06-2	1,2-Dichloroethane		
71-43-2	Benzene		
79-01-6	Trichloroethene		
78-87-5	1,2-Dichloropropane		
75-27-4	Bromodichloromethane		
110-75-8	2-Chloroethylvinyl ether		
108-10-1	4-Methyl-2-Pentanone (MIBK)		
10061-01-5	cis-1,3-Dichloropropene		
108-88-3	Toluene	1.8	J
10061-02-6	trans-1,3-Dichloropropene		
591-78-6	2-Hexanone		
79-00-5	1,1,2-Trichloroethane		
127-18-4	Tetrachloroethene		
124-48-1	Dibromochloromethane		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene		
1330-20-7	Xylene (Total)		
95-47-6	o-Xylene		
100-42-5	Styrene		
75-25-2	Bromoform		

SW846-VOA

SAMPLE ID ------->	039-S-B006-02
ORIGINAL ID ----->	039SB00602
LAB SAMPLE ID --->	L5506-6
ID FROM REPORT -->	039SB00602
SAMPLE DATE ----->	10/02/95
DATE ANALYZED --->	10/12/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506	NV
74-87-3	Chloromethane		
75-01-4	Vinyl chloride		
74-83-9	Bromomethane		
75-00-3	Chloroethane		
75-69-4	Trichlorofluoromethane		
67-64-1	Acetone	38.	
75-35-4	1,1-Dichloroethylene		
75-15-0	Carbon disulfide		
75-09-2	Methylene chloride		
156-60-5	trans-1,2-Dichloroethene		
108-05-4	Vinyl acetate		
75-34-3	1,1-Dichloroethane		
78-93-3	2-Butanone (MEK)	4.2	J
156-59-2	cis-1,2-Dichloroethylene		
67-66-3	Chloroform		
71-55-6	1,1,1-Trichloroethane		
56-23-5	Carbon tetrachloride		
107-06-2	1,2-Dichloroethane		
71-43-2	Benzene		
79-01-6	Trichloroethene		
78-87-5	1,2-Dichloropropane		
75-27-4	Bromodichloromethane		
110-75-8	2-Chloroethylvinyl ether		
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.2	J
10061-01-5	cis-1,3-Dichloropropene		
108-88-3	Toluene		
10061-02-6	trans-1,3-Dichloropropene		
591-78-6	2-Hexanone		
79-00-5	1,1,2-Trichloroethane		
127-18-4	Tetrachloroethene		
124-48-1	Dibromochloromethane		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	92.	
1330-20-7	Xylene (Total)	1400.	E
95-47-6	o-Xylene	560.	E
100-42-5	Styrene		
75-25-2	Bromoform		

SW846-PEST						
	SAMPLE ID ------->	039-S-8007-01				
	ORIGINAL ID ----->	039SB00701				
	LAB SAMPLE ID --->	L5506-33				
	ID FROM REPORT -->	039SB00701				
	SAMPLE DATE ----->	10/02/95				
	DATE EXTRACTED -->	10/14/95				
	DATE ANALYZED --->	10/23/95				
	MATRIX ---------->	Soil				
	UNITS ---------->	UG/KG A				
CAS #	Parameter	L5506 NV				
319-84-6	alpha-BHC					
319-85-7	beta-BHC					
58-89-9	gamma-BHC (Lindane)					
319-86-8	delta-BHC					
76-44-8	Heptachlor					
309-00-2	Aldrin					
1024-57-3	Heptachlor epoxide					
5103-74-2	gamma-Chlordane					
959-98-8	Endosulfan I					
5103-71-9	alpha-Chlordane					
72-55-9	4,4'-DDE					
50-29-3	4,4'-DDT					
60-57-1	Dieldrin					
72-20-8	Endrin					
33213-65-9	Endosulfan II					
72-54-8	4,4'-DDD					
7421-93-4	Endrin aldehyde					
1031-07-8	Endosulfan sulfate					
72-43-5	Methoxychlor					
8001-35-2	Toxaphene					
12674-11-2	Aroclor-1016					
11104-28-2	Aroclor-1221					
11141-16-5	Aroclor-1232					
53469-21-9	Aroclor-1242					
12672-29-6	Aroclor-1248					
11097-69-1	Aroclor-1254					
11096-82-5	Aroclor-1260	98.				
57-74-9	Chlordane					
465-73-6	Isodrin	??????????				
143-50-0	Kepone	??????????				

SW846-DRO							
	SAMPLE ID ------->	039-S-B008-01					
	ORIGINAL ID ----->	039SB00801					
	LAB SAMPLE ID --->	L5506-51					
	ID FROM REPORT -->	039SB00801					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/22/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-6	TPH - Diesel Range Organics	1300.					

SW846-GRO							
	SAMPLE ID ------->	039-S-B008-01					
	ORIGINAL ID ----->	039SB00801					
	LAB SAMPLE ID --->	L5506-51					
	ID FROM REPORT -->	039SB00801					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/22/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-5	TPH - Gasoline Range Organics	380.					

SW846-PEST			
	SAMPLE ID ------->	039-S-B008-01	
	ORIGINAL ID ----->	039SB00801	
	LAB SAMPLE ID --->	L5506-31	
	ID FROM REPORT -->	039SB00801	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/14/95	
	DATE ANALYZED --->	10/24/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
58-89-9	gamma-BHC (Lindane)		
319-86-8	delta-BHC		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
5103-74-2	gamma-Chlordane		
959-98-8	Endosulfan I		
5103-71-9	alpha-Chlordane		
72-55-9	4,4'-DDE		
50-29-3	4,4'-DDT		
60-57-1	Dieldrin		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
7421-93-4	Endrin aldehyde		
1031-07-8	Endosulfan sulfate		
72-43-5	Methoxychlor		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260	26.	
57-74-9	Chlordane		
465-73-6	Isodrin	??????????	
143-50-0	Kepone	??????????	

SW846-SVOA

SAMPLE ID ------->	039-S-8008-01
ORIGINAL ID ----->	039S800801
LAB SAMPLE ID --->	L5506-31
ID FROM REPORT -->	039S800801
SAMPLE DATE ----->	10/02/95
DATE EXTRACTED -->	10/12/95
DATE ANALYZED --->	10/16/95
MATRIX ---------->	Soil
UNITS ----------->	UG/KG A

CAS #	Parameter	L5506 NV
108-95-2	Phenol	
111-44-4	bis(2-Chloroethyl)ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol (o-Cresol)	
108-60-1	2,2'-oxybis(1-Chloropropane)	
621-64-7	N-Nitroso-di-n-propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic acid	
111-91-1	bis(2-Chloroethoxy)methane	
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-methylphenol	
91-57-6	2-Methylnaphthalene	730. J
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	
91-58-7	2-Chloronaphthalene	
88-74-4	2-Nitroaniline	
131-11-3	Dimethylphthalate	
208-96-8	Acenaphthylene	
606-20-2	2,6-Dinitrotoluene	
99-09-2	3-Nitroaniline	
83-32-9	Acenaphthene	
51-28-5	2,4-Dinitrophenol	
100-02-7	4-Nitrophenol	

SW846-SVOA			
	SAMPLE ID ------->	039-S-B008-01	
	ORIGINAL ID ----->	039SB00801	
	LAB SAMPLE ID --->	L5506-31	
	ID FROM REPORT -->	039SB00801	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/16/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
132-64-9	Dibenzofuran		
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenylphenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline		
534-52-1	2-Methyl-4,6-Dinitrophenol		
86-30-6	N-Nitrosodiphenylamine		
101-55-3	4-Bromophenylphenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	300.	J
120-12-7	Anthracene		
86-74-8	Carbazole		
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene		
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate		
91-94-1	3,3'-Dichlorobenzidine		
56-55-3	Benzo(a)anthracene		
218-01-9	Chrysene		
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)		
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenzo(a,h)anthracene		
191-24-2	Benzo(g,h,i)perylene		
95-53-4	o-Toludine	??????????	
1888-71-7	Hexachloropropene	??????????	
95-94-3	1,2,4,5-Tetrachlorobenzene	??????????	
608-93-5	Pentachlorobenzene	??????????	
91-59-8	2-Naphthylamine	??????????	
134-32-7	1-Naphthylamine	??????????	
297-97-2	Thionazin	??????????	

SW846-DRO							
	SAMPLE ID ------->	039-S-B008-02					
	ORIGINAL ID ----->	039SB00802					
	LAB SAMPLE ID --->	L5506-52					
	ID FROM REPORT -->	039SB00802					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/22/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-6	TPH - Diesel Range Organics	19000.					

SW846-GRO							
	SAMPLE ID ------->	039-S-B008-02					
	ORIGINAL ID ----->	039SB00802					
	LAB SAMPLE ID --->	L5506-52					
	ID FROM REPORT -->	039SB00802					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/22/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-5	TPH - Gasoline Range Organics	9500.					

SW846-SVOA	SAMPLE ID ------->	039-S-B008-02	
	ORIGINAL ID ----->	039SB00802	
	LAB SAMPLE ID --->	L5506-32	
	ID FROM REPORT -->	039SB00802	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/16/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol (o-Cresol)		
108-60-1	2,2'-oxybis(1-Chloropropane)		
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol		
65-85-0	Benzoic acid		
111-91-1	bis(2-Chloroethoxy)methane		
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	37000.	E
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	68000.	E
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol		
91-58-7	2-Chloronaphthalene		
88-74-4	2-Nitroaniline		
131-11-3	Dimethylphthalate		
208-96-8	Acenaphthylene		
606-20-2	2,6-Dinitrotoluene		
99-09-2	3-Nitroaniline		
83-32-9	Acenaphthene	4300.	
51-28-5	2,4-Dinitrophenol		
100-02-7	4-Nitrophenol		

SW846-SVOA						
	SAMPLE ID ------->	039-S-B008-02				
	ORIGINAL ID ----->	039SB00802				
	LAB SAMPLE ID --->	L5506-32				
	ID FROM REPORT -->	039SB00802				
	SAMPLE DATE ----->	10/02/95				
	DATE EXTRACTED -->	10/12/95				
	DATE ANALYZED --->	10/16/95				
	MATRIX ---------->	Soil				
	UNITS ---------->	UG/KG A				
CAS #	Parameter	L5506 NV				
132-64-9	Dibenzofuran	6700.				
121-14-2	2,4-Dinitrotoluene					
84-66-2	Diethylphthalate					
7005-72-3	4-Chlorophenylphenylether					
86-73-7	Fluorene	10000.				
100-01-6	4-Nitroaniline					
534-52-1	2-Methyl-4,6-Dinitrophenol					
86-30-6	N-Nitrosodiphenylamine					
101-55-3	4-Bromophenylphenylether					
118-74-1	Hexachlorobenzene					
87-86-5	Pentachlorophenol					
85-01-8	Phenanthrene	12000.				
120-12-7	Anthracene	1100.				
86-74-8	Carbazole					
84-74-2	Di-n-butylphthalate					
206-44-0	Fluoranthene					
129-00-0	Pyrene	890.				
85-68-7	Butylbenzylphthalate					
91-94-1	3,3'-Dichlorobenzidine					
56-55-3	Benzo(a)anthracene					
218-01-9	Chrysene					
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)					
117-84-0	Di-n-octylphthalate					
205-99-2	Benzo(b)fluoranthene					
207-08-9	Benzo(k)fluoranthene					
50-32-8	Benzo(a)pyrene					
193-39-5	Indeno(1,2,3-cd)pyrene					
53-70-3	Dibenzo(a,h)anthracene					
191-24-2	Benzo(g,h,i)perylene					
95-53-4	o-Toludine	??????????				
1888-71-7	Hexachloropropene	??????????				
95-94-3	1,2,4,5-Tetrachlorobenzene	??????????				
608-93-5	Pentachlorobenzene	??????????				
91-59-8	2-Naphthylamine	??????????				
134-32-7	1-Naphthylamine	??????????				
297-97-2	Thionazin	??????????				

SW846-VOA

SAMPLE ID ------->	039-S-B008-02
ORIGINAL ID ----->	039SB00802
LAB SAMPLE ID --->	L5506-12
ID FROM REPORT -->	039SB00802
SAMPLE DATE ----->	10/02/95
DATE ANALYZED --->	10/13/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506	NV
74-87-3	Chloromethane		
75-01-4	Vinyl chloride		
74-83-9	Bromomethane		
75-00-3	Chloroethane		
75-69-4	Trichlorofluoromethane		
67-64-1	Acetone	140.	
75-35-4	1,1-Dichloroethylene		
75-15-0	Carbon disulfide		
75-09-2	Methylene chloride		
156-60-5	trans-1,2-Dichloroethene		
108-05-4	Vinyl acetate		
75-34-3	1,1-Dichloroethane		
78-93-3	2-Butanone (MEK)		
156-59-2	cis-1,2-Dichloroethylene		
67-66-3	Chloroform		
71-55-6	1,1,1-Trichloroethane		
56-23-5	Carbon tetrachloride		
107-06-2	1,2-Dichloroethane		
71-43-2	Benzene	250.	E
79-01-6	Trichloroethene		
78-87-5	1,2-Dichloropropane		
75-27-4	Bromodichloromethane		
110-75-8	2-Chloroethylvinyl ether		
108-10-1	4-Methyl-2-Pentanone (MIBK)		
10061-01-5	cis-1,3-Dichloropropene		
108-88-3	Toluene		
10061-02-6	trans-1,3-Dichloropropene		
591-78-6	2-Hexanone		
79-00-5	1,1,2-Trichloroethane		
127-18-4	Tetrachloroethene		
124-48-1	Dibromochloromethane		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	590.	BE
1330-20-7	Xylene (Total)	890.	BE
95-47-6	o-Xylene		
100-42-5	Styrene		
75-25-2	Bromoform		

SW846-PEST

SAMPLE ID ------->	039-S-B009-01
ORIGINAL ID ----->	039SB00901
LAB SAMPLE ID --->	L5506-37
ID FROM REPORT -->	039SB00901
SAMPLE DATE ----->	10/02/95
DATE EXTRACTED -->	10/14/95
DATE ANALYZED --->	10/24/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506 NV
319-84-6	alpha-BHC	
319-85-7	beta-BHC	
58-89-9	gamma-BHC (Lindane)	
319-86-8	delta-BHC	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor epoxide	
5103-74-2	gamma-Chlordane	
959-98-8	Endosulfan I	
5103-71-9	alpha-Chlordane	
72-55-9	4,4'-DDE	
50-29-3	4,4'-DDT	8.4
60-57-1	Dieldrin	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	9.6
7421-93-4	Endrin aldehyde	6.7
1031-07-8	Endosulfan sulfate	
72-43-5	Methoxychlor	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	
57-74-9	Chlordane	
465-73-6	Isodrin	??????????
143-50-0	Kepone	??????????

SW846-PEST

SAMPLE ID ------->	039-S-B010-01
ORIGINAL ID ----->	039SB01001
LAB SAMPLE ID --->	L5506-35
ID FROM REPORT -->	039SB01001
SAMPLE DATE ----->	10/02/95
DATE EXTRACTED -->	10/14/95
DATE ANALYZED --->	10/24/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506 NV
319-84-6	alpha-BHC	
319-85-7	beta-BHC	
58-89-9	gamma-BHC (Lindane)	
319-86-8	delta-BHC	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor epoxide	
5103-74-2	gamma-Chlordane	
959-98-8	Endosulfan I	
5103-71-9	alpha-Chlordane	
72-55-9	4,4'-DDE	4.9
50-29-3	4,4'-DDT	
60-57-1	Dieldrin	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	6.9
7421-93-4	Endrin aldehyde	
1031-07-8	Endosulfan sulfate	
72-43-5	Methoxychlor	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	
57-74-9	Chlordane	
465-73-6	Isodrin	??????????
143-50-0	Kepone	??????????

SW846-VOA			
	SAMPLE ID ------->	039-S-B010-02	
	ORIGINAL ID ----->	039SB01002	
	LAB SAMPLE ID --->	L5506-16	
	ID FROM REPORT -->	039SB01002	
	SAMPLE DATE ----->	10/02/95	
	DATE ANALYZED --->	10/13/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
74-87-3	Chloromethane		
75-01-4	Vinyl chloride		
74-83-9	Bromomethane		
75-00-3	Chloroethane		
75-69-4	Trichlorofluoromethane		
67-64-1	Acetone	65.	
75-35-4	1,1-Dichloroethylene		
75-15-0	Carbon disulfide	1.8	J
75-09-2	Methylene chloride		
156-60-5	trans-1,2-Dichloroethene		
108-05-4	Vinyl acetate		
75-34-3	1,1-Dichloroethane		
78-93-3	2-Butanone (MEK)	5.	J
156-59-2	cis-1,2-Dichloroethylene	11.	
67-66-3	Chloroform		
71-55-6	1,1,1-Trichloroethane		
56-23-5	Carbon tetrachloride		
107-06-2	1,2-Dichloroethane		
71-43-2	Benzene		
79-01-6	Trichloroethene		
78-87-5	1,2-Dichloropropane		
75-27-4	Bromodichloromethane		
110-75-8	2-Chloroethylvinyl ether		
108-10-1	4-Methyl-2-Pentanone (MIBK)		
10061-01-5	cis-1,3-Dichloropropene		
108-88-3	Toluene		
10061-02-6	trans-1,3-Dichloropropene		
591-78-6	2-Hexanone		
79-00-5	1,1,2-Trichloroethane		
127-18-4	Tetrachloroethene		
124-48-1	Dibromochloromethane		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene		
1330-20-7	Xylene (Total)		
95-47-6	o-Xylene		
100-42-5	Styrene		
75-25-2	Bromoform		

SW846-PEST

SAMPLE ID ------->	039-S-B011-01
ORIGINAL ID ----->	039SB01101
LAB SAMPLE ID --->	L5506-39
ID FROM REPORT -->	039SB01101
SAMPLE DATE ----->	10/02/95
DATE EXTRACTED -->	10/14/95
DATE ANALYZED --->	10/24/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506 NV
319-84-6	alpha-BHC	
319-85-7	beta-BHC	
58-89-9	gamma-BHC (Lindane)	
319-86-8	delta-BHC	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor epoxide	
5103-74-2	gamma-Chlordane	
959-98-8	Endosulfan I	
5103-71-9	alpha-Chlordane	
72-55-9	4,4'-DDE	9.9
50-29-3	4,4'-DDT	11.
60-57-1	Dieldrin	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	16.
7421-93-4	Endrin aldehyde	
1031-07-8	Endosulfan sulfate	
72-43-5	Methoxychlor	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	
57-74-9	Chlordane	
465-73-6	Isodrin	??????????
143-50-0	Kepone	??????????

SW846-SVOA						
	SAMPLE ID ------->	039-S-B011-01				
	ORIGINAL ID ----->	039SB01101				
	LAB SAMPLE ID --->	L5506-39				
	ID FROM REPORT -->	039SB01101				
	SAMPLE DATE ----->	10/02/95				
	DATE EXTRACTED -->	10/12/95				
	DATE ANALYZED --->	10/16/95				
	MATRIX ---------->	Soil				
	UNITS ---------->	UG/KG A				
CAS #	Parameter	L5506 NV				
108-95-2	Phenol					
111-44-4	bis(2-Chloroethyl)ether					
95-57-8	2-Chlorophenol					
541-73-1	1,3-Dichlorobenzene					
106-46-7	1,4-Dichlorobenzene					
100-51-6	Benzyl alcohol					
95-50-1	1,2-Dichlorobenzene					
95-48-7	2-Methylphenol (o-Cresol)					
108-60-1	2,2'-oxybis(1-Chloropropane)					
621-64-7	N-Nitroso-di-n-propylamine					
67-72-1	Hexachloroethane					
98-95-3	Nitrobenzene					
78-59-1	Isophorone					
88-75-5	2-Nitrophenol					
105-67-9	2,4-Dimethylphenol					
65-85-0	Benzoic acid					
111-91-1	bis(2-Chloroethoxy)methane					
120-83-2	2,4-Dichlorophenol					
120-82-1	1,2,4-Trichlorobenzene					
91-20-3	Naphthalene	1100.				
106-47-8	4-Chloroaniline					
87-68-3	Hexachlorobutadiene					
59-50-7	4-Chloro-3-methylphenol					
91-57-6	2-Methylnaphthalene	1700.				
77-47-4	Hexachlorocyclopentadiene					
88-06-2	2,4,6-Trichlorophenol					
95-95-4	2,4,5-Trichlorophenol					
91-58-7	2-Chloronaphthalene					
88-74-4	2-Nitroaniline					
131-11-3	Dimethylphthalate					
208-96-8	Acenaphthylene					
606-20-2	2,6-Dinitrotoluene					
99-09-2	3-Nitroaniline					
83-32-9	Acenaphthene					
51-28-5	2,4-Dinitrophenol					
100-02-7	4-Nitrophenol					

SW846-SVOA			
	SAMPLE ID ------->	039-S-B011-01	
	ORIGINAL ID ----->	039SB01101	
	LAB SAMPLE ID --->	L5506-39	
	ID FROM REPORT -->	039SB01101	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/16/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
132-64-9	Dibenzofuran		
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenylphenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline		
534-52-1	2-Methyl-4,6-Dinitrophenol		
86-30-6	N-Nitrosodiphenylamine		
101-55-3	4-Bromophenylphenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	200.	J
120-12-7	Anthracene		
86-74-8	Carbazole		
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene	350.	J
129-00-0	Pyrene	290.	J
85-68-7	Butylbenzylphthalate		
91-94-1	3,3'-Dichlorobenzidine		
56-55-3	Benzo(a)anthracene	150.	J
218-01-9	Chrysene	170.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	6200.	
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenzo(a,h)anthracene		
191-24-2	Benzo(g,h,i)perylene		
95-53-4	o-Toludine	??????????	
1888-71-7	Hexachloropropene	??????????	
95-94-3	1,2,4,5-Tetrachlorobenzene	??????????	
608-93-5	Pentachlorobenzene	??????????	
91-59-8	2-Naphthylamine	??????????	
134-32-7	1-Naphthylamine	??????????	
297-97-2	Thionazin	??????????	

SW846-VOA						
SAMPLE ID ------->	039-S-B011-01					
ORIGINAL ID ----->	039SB01101					
LAB SAMPLE ID --->	L5506-19					
ID FROM REPORT -->	039SB01101					
SAMPLE DATE ----->	10/02/95					
DATE ANALYZED --->	10/13/95					
MATRIX ---------->	Soil					
UNITS ---------->	UG/KG	A				

CAS #	Parameter	L5506	NV				
74-87-3	Chloromethane						
75-01-4	Vinyl chloride						
74-83-9	Bromomethane						
75-00-3	Chloroethane						
75-69-4	Trichlorofluoromethane						
67-64-1	Acetone	74.					
75-35-4	1,1-Dichloroethylene						
75-15-0	Carbon disulfide	1.2	J				
75-09-2	Methylene chloride						
156-60-5	trans-1,2-Dichloroethene	4.1	J				
108-05-4	Vinyl acetate						
75-34-3	1,1-Dichloroethane						
78-93-3	2-Butanone (MEK)	11.	J				
156-59-2	cis-1,2-Dichloroethylene	200.					
67-66-3	Chloroform						
71-55-6	1,1,1-Trichloroethane						
56-23-5	Carbon tetrachloride						
107-06-2	1,2-Dichloroethane						
71-43-2	Benzene	4.7	J				
79-01-6	Trichloroethene	37.					
78-87-5	1,2-Dichloropropane						
75-27-4	Bromodichloromethane						
110-75-8	2-Chloroethylvinyl ether						
108-10-1	4-Methyl-2-Pentanone (MIBK)						
10061-01-5	cis-1,3-Dichloropropene						
108-88-3	Toluene	2.3	J				
10061-02-6	trans-1,3-Dichloropropene						
591-78-6	2-Hexanone						
79-00-5	1,1,2-Trichloroethane						
127-18-4	Tetrachloroethene	170.					
124-48-1	Dibromochloromethane						
108-90-7	Chlorobenzene						
100-41-4	Ethylbenzene	150.	B				
1330-20-7	Xylene (Total)	300.	B				
95-47-6	o-Xylene						
100-42-5	Styrene						
75-25-2	Bromoform						

SW846-DRO			
	SAMPLE ID ------->	039-S-B011-02	
	ORIGINAL ID ----->	039SB01102	
	LAB SAMPLE ID --->	L5506-60	
	ID FROM REPORT -->	039SB01102	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/22/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	MG/KG	A

CAS #	Parameter	L5506	NV
9999900-02-6	TPH - Diesel Range Organics	14000.	

SW846-GRO							
	SAMPLE ID ------->	039-S-B011-02					
	ORIGINAL ID ----->	039SB01102					
	LAB SAMPLE ID --->	L5506-60					
	ID FROM REPORT -->	039SB01102					
	SAMPLE DATE ----->	10/02/95					
	DATE EXTRACTED -->	10/12/95					
	DATE ANALYZED --->	10/22/95					
	MATRIX ---------->	Soil					
	UNITS ---------->	MG/KG A					
CAS #	Parameter	L5506 NV					
9999900-02-5	TPH - Gasoline Range Organics	7900.					

SW846-PEST			
	SAMPLE ID ------->	039-S-B011-02	
	ORIGINAL ID ----->	039SB01102	
	LAB SAMPLE ID --->	L5506-40	
	ID FROM REPORT -->	039SB01102	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/14/95	
	DATE ANALYZED --->	10/24/95	
	MATRIX ---------->	Soil	
	UNITS ----------->	UG/KG	A

CAS #	Parameter	L5506	NV
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
58-89-9	gamma-BHC (Lindane)		
319-86-8	delta-BHC		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
5103-74-2	gamma-Chlordane		
959-98-8	Endosulfan I		
5103-71-9	alpha-Chlordane		
72-55-9	4,4'-DDE		
50-29-3	4,4'-DDT	520.	D25
60-57-1	Dieldrin		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
7421-93-4	Endrin aldehyde		
1031-07-8	Endosulfan sulfate		
72-43-5	Methoxychlor		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		
57-74-9	Chlordane		
465-73-6	Isodrin	??????????	
143-50-0	Kepone	??????????	

SW846-SVOA						
SAMPLE ID ------->	039-S-B011-02					
ORIGINAL ID ----->	039SB01102					
LAB SAMPLE ID --->	L5506-40					
ID FROM REPORT -->	039SB01102					
SAMPLE DATE ----->	10/02/95					
DATE EXTRACTED -->	10/12/95					
DATE ANALYZED --->	10/16/95					
MATRIX ---------->	Soil					
UNITS ---------->	UG/KG A					
CAS # Parameter	L5506 NV					
108-95-2 Phenol						
111-44-4 bis(2-Chloroethyl)ether						
95-57-8 2-Chlorophenol						
541-73-1 1,3-Dichlorobenzene						
106-46-7 1,4-Dichlorobenzene						
100-51-6 Benzyl alcohol						
95-50-1 1,2-Dichlorobenzene						
95-48-7 2-Methylphenol (o-Cresol)						
108-60-1 2,2'-oxybis(1-Chloropropane)						
621-64-7 N-Nitroso-di-n-propylamine						
67-72-1 Hexachloroethane						
98-95-3 Nitrobenzene						
78-59-1 Isophorone						
88-75-5 2-Nitrophenol						
105-67-9 2,4-Dimethylphenol						
65-85-0 Benzoic acid						
111-91-1 bis(2-Chloroethoxy)methane						
120-83-2 2,4-Dichlorophenol						
120-82-1 1,2,4-Trichlorobenzene						
91-20-3 Naphthalene	27000. E					
106-47-8 4-Chloroaniline						
87-68-3 Hexachlorobutadiene						
59-50-7 4-Chloro-3-methylphenol						
91-57-6 2-Methylnaphthalene	59000. E					
77-47-4 Hexachlorocyclopentadiene						
88-06-2 2,4,6-Trichlorophenol						
95-95-4 2,4,5-Trichlorophenol						
91-58-7 2-Chloronaphthalene						
88-74-4 2-Nitroaniline						
131-11-3 Dimethylphthalate						
208-96-8 Acenaphthylene						
606-20-2 2,6-Dinitrotoluene						
99-09-2 3-Nitroaniline						
83-32-9 Acenaphthene	2800.					
51-28-5 2,4-Dinitrophenol						
100-02-7 4-Nitrophenol						

SW846-SVOA	SAMPLE ID ------->	039-S-B011-02	
	ORIGINAL ID ----->	039SB01102	
	LAB SAMPLE ID --->	L5506-40	
	ID FROM REPORT -->	039SB01102	
	SAMPLE DATE ----->	10/02/95	
	DATE EXTRACTED -->	10/12/95	
	DATE ANALYZED --->	10/16/95	
	MATRIX ---------->	Soil	
	UNITS ---------->	UG/KG	A

CAS #	Parameter	L5506	NV
132-64-9	Dibenzofuran	4800.	
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenylphenylether		
86-73-7	Fluorene	7400.	
100-01-6	4-Nitroaniline		
534-52-1	2-Methyl-4,6-Dinitrophenol		
86-30-6	N-Nitrosodiphenylamine		
101-55-3	4-Bromophenylphenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	14000.	E
120-12-7	Anthracene	1500.	
86-74-8	Carbazole		
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene	380.	J
129-00-0	Pyrene	1200.	
85-68-7	Butylbenzylphthalate		
91-94-1	3,3'-Dichlorobenzidine		
56-55-3	Benzo(a)anthracene		
218-01-9	Chrysene	150.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)		
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenzo(a,h)anthracene		
191-24-2	Benzo(g,h,i)perylene		
95-53-4	o-Toludine	??????????	
1888-71-7	Hexachloropropene	??????????	
95-94-3	1,2,4,5-Tetrachlorobenzene	??????????	
608-93-5	Pentachlorobenzene	??????????	
91-59-8	2-Naphthylamine	??????????	
134-32-7	1-Naphthylamine	??????????	
297-97-2	Thionazin	??????????	

SW846-VOA

SAMPLE ID ------->	039-S-B011-02
ORIGINAL ID ----->	039SB01102
LAB SAMPLE ID --->	L5506-20
ID FROM REPORT -->	039SB01102
SAMPLE DATE ----->	10/02/95
DATE ANALYZED --->	10/13/95
MATRIX ---------->	Soil
UNITS ---------->	UG/KG A

CAS #	Parameter	L5506	NV
74-87-3	Chloromethane		
75-01-4	Vinyl chloride		
74-83-9	Bromomethane		
75-00-3	Chloroethane		
75-69-4	Trichlorofluoromethane		
67-64-1	Acetone	38.	
75-35-4	1,1-Dichloroethylene	25.	
75-15-0	Carbon disulfide		
75-09-2	Methylene chloride		
156-60-5	trans-1,2-Dichloroethene	4.5	J
108-05-4	Vinyl acetate		
75-34-3	1,1-Dichloroethane		
78-93-3	2-Butanone (MEK)		
156-59-2	cis-1,2-Dichloroethylene		
67-66-3	Chloroform		
71-55-6	1,1,1-Trichloroethane	160.	
56-23-5	Carbon tetrachloride		
107-06-2	1,2-Dichloroethane		
71-43-2	Benzene	61.	
79-01-6	Trichloroethene	260.	E
78-87-5	1,2-Dichloropropane		
75-27-4	Bromodichloromethane		
110-75-8	2-Chloroethylvinyl ether		
108-10-1	4-Methyl-2-Pentanone (MIBK)		
10061-01-5	cis-1,3-Dichloropropene		
108-88-3	Toluene		
10061-02-6	trans-1,3-Dichloropropene		
591-78-6	2-Hexanone		
79-00-5	1,1,2-Trichloroethane		
127-18-4	Tetrachloroethene	730.	E
124-48-1	Dibromochloromethane		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	610.	BE
1330-20-7	Xylene (Total)	680.	BE
95-47-6	o-Xylene	63.	
100-42-5	Styrene		
75-25-2	Bromoform		

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

APX9 PEST													
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/28/95		09/28/95		09/08/95		10/17/95		10/01/95		10/01/95	
	DATE ANALYZED --->	10/11/95		10/11/95		09/26/95		10/27/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin									29.	P		
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD			4.91									
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT					4.7				3.2			
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane									13.	P		
5103-74-2	gamma-Chlordane									16.			
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

APX9 PEST													
	SAMPLE ID ------->	070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		538-C-B008-02		540-C-B001-02	
	ORIGINAL ID ----->	070CB00101		087CB00101		097CB00301		172CB00301		538CB00802		540CB00102	
	LAB SAMPLE ID --->	23396.01		23458.02		23548.01		23458.01		23360.01		23387.03	
	ID FROM REPORT -->	070CB00101		087CB00101		097CB00301		172CB00301		538CB00802		540CB00102	
	SAMPLE DATE ----->	08/31/95		09/08/95		09/18/95		09/08/95		08/28/95		08/30/95	
	DATE EXTRACTED -->	09/05/95		09/13/95		09/19/95		09/13/95		08/30/95		09/07/95	
	DATE ANALYZED --->	09/20/95		09/24/95		09/26/95		09/23/95		09/11/95		09/19/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23447	NV	23535	NV	23447	NV	23359	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC			4.83									
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor					7.7						2.4	
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide					7.37							
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE			328.	E	15.1		42.6					
60-57-1	Dieldrin			12.		5.5							
72-20-8	Endrin			14.3		4.91							
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD			145.	E								
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT			70.3									
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane			48.8		82.7	E	3.22				1.6	
5103-74-2	gamma-Chlordane			55.5		198.	E	3.25				2.7	
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde			4.19								3.7	P
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

APX9 PEST																	
	SAMPLE ID ------->	542-C-B006-02		543-C-B002-02		543-C-B003-02		543-C-B004-02		573-C-B002-01		573-C-B003-02	
	ORIGINAL ID ----->	542CB00602		543CB00202		543CB00302		543CB00402		573CB00201		573CB00302	
	LAB SAMPLE ID --->	23369.01		23797.02		23789.01		23387.04		23471.01		23471.02	
	ID FROM REPORT -->	542CB00602		543CB00202		543CB00302		543CB00402		573CB00201		573CB00302	
	SAMPLE DATE ----->	08/30/95		10/12/95		10/11/95		08/30/95		09/11/95		09/11/95	
	DATE EXTRACTED -->	09/01/95		10/14/95		10/14/95		09/07/95		09/13/95		09/13/95	
	DATE ANALYZED --->	09/14/95		10/28/95		10/28/95		09/19/95		09/24/95		09/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23359	NV	23720	NV	23720	NV	23386	NV	23471	NV	23471	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor					1.5		4.					
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE							4.5	P	5.44			
60-57-1	Dieldrin												
72-20-8	Endrin									7.52			
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD									4.9			
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT							3.4					
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane					??????????		31.	E				
5103-74-2	gamma-Chlordane					??????????		44.	E				
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde							2.9	P				
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
12789-03-6	Technical Chlordane	??????????		??????????		5.4		??????????		??????????		??????????	

APX9 PEST													
	SAMPLE ID ------->	573-C-B005-02		576-C-B003-01		598-C-B002-02		599-C-B005-02		605-C-B010-01		605-C-B011-02	
	ORIGINAL ID ----->	573CB00502		576CB00301		598CB00202		599CB00502		605CB01001		605CB01102	
	LAB SAMPLE ID --->	23471.03		23437.02		23560.01		23574.01		23593.02		23593.01	
	ID FROM REPORT -->	573CB00502		576CB00301		598CB00202		599CB00502		605CB01001		605CB01102	
	SAMPLE DATE ----->	09/11/95		09/06/95		09/19/95		09/20/95		09/21/95		09/21/95	
	DATE EXTRACTED -->	09/13/95		09/08/95		09/20/95		09/22/95		09/26/95		09/26/95	
	DATE ANALYZED --->	09/24/95		09/14/95		09/26/95		09/29/95		09/29/95		09/29/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23471	NV	23424	NV	23560	NV	23560	NV	23593	NV	23593	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde			9.7	P								
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

APX9 PEST													
	SAMPLE ID ------->	GDE-C-B001-01		GDE-C-B002-02		GDE-C-B009-01		GDE-C-B010-02					
	ORIGINAL ID ----->	GDECB00101		GDECB00202		GDECB00901		GDECB01002					
	LAB SAMPLE ID --->	23502.01		23502.02		23484.03		23484.02					
	ID FROM REPORT -->	GDECB00101		GDECB00202		GDECB00901		GDECB01002					
	SAMPLE DATE ----->	09/13/95		09/13/95		09/12/95		09/12/95					
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95					
	DATE ANALYZED --->	09/24/95		09/24/95		09/27/95		09/27/95					
	MATRIX ---------->	Soil		Soil		Soil		Soil					
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A				
CAS #	Parameter	23502	NV	23502	NV	23484	NV	23484	NV				
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE					11.							
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde	3.6	P										
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????					

APX9 SVOA															
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/28/95		09/28/95		09/08/95		10/17/95		10/01/95		10/01/95	
	DATE ANALYZED --->	10/10/95		10/05/95		09/21/95		11/01/95		10/12/95		10/12/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol												
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene												
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene												
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene							91.	J				
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran												

APX9 SVOA													
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/28/95		09/28/95		09/08/95		10/17/95		10/01/95		10/01/95	
	DATE ANALYZED --->	10/10/95		10/05/95		09/21/95		11/01/95		10/12/95		10/12/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene							1500.					
120-12-7	Anthracene							240.	J				
84-74-2	Di-n-butylphthalate			180.	J								
206-44-0	Fluoranthene	76.	J			42.	J	1900.				250.	J
129-00-0	Pyrene	74.	J			46.	J	2200.				250.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene							940.				98.	J
218-01-9	Chrysene	73.	J			42.	J	1400.				200.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	110.	JB	120.	JB	3900.				100.	J		
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	77.	J					680.	J				
207-08-9	Benzo(k)fluoranthene	79.	J					1100.				270.	J
50-32-8	Benzo(a)pyrene	74.	J					850.				140.	J
193-39-5	Indeno(1,2,3-cd)pyrene							530.	J				
53-70-3	Dibenzo(a,h)anthracene							200.	J				
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene							660.	J				
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA													
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/28/95		09/28/95		09/08/95		10/17/95		10/01/95		10/01/95	
	DATE ANALYZED --->	10/10/95		10/05/95		09/21/95		11/01/95		10/12/95		10/12/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
60-11-7	p-(Dimethylamino)azobenzene												
53-96-3	Acetamidofluorene												
57-97-6	7,12-Dimethylbenz(a)anthracene												
56-49-5	3-Methylcholanthrene												
60-51-5	Dimethoate												
96-12-8	1,2-Dibromo-3-Chloropropane												
70-30-4	Hexachlorophene												
143-50-0	Kepone												
134-32-7	1-Naphthylamine												
23950-58-5	Pronamide												
126-68-1	O,O,O-Triethylphosphorothioate												
3689-24-5	Sulfotep												
88-85-7	Dinoseb												
56-38-2	Parathion												
86-74-8	Carbazole							110.	J				
108-39-4	3-Methylphenol (m-Cresol)												

APX9 SVOA													
	SAMPLE ID ------->	070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		528-C-B003-02		538-C-B008-02	
	ORIGINAL ID ----->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	LAB SAMPLE ID --->	23396.01		23458.02		23548.01		23458.01		23797.01		23360.01	
	ID FROM REPORT -->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	SAMPLE DATE ----->	08/31/95		09/08/95		09/18/95		09/08/95		10/12/95		08/28/95	
	DATE EXTRACTED -->	09/05/95		09/13/95		09/19/95		09/13/95		10/14/95		08/30/95	
	DATE ANALYZED --->	09/08/95		09/23/95		09/25/95		09/23/95		10/24/95		09/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23447	NV	23535	NV	23447	NV	23720	NV	23359	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol	68.	J					190.	J				
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene												
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol	76.	J			67.	J	160.	J				
91-57-6	2-Methylnaphthalene												
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene	65.	J			54.	J	120.	J				
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran												

APX9 SVOA													
	SAMPLE ID ------->	070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		528-C-B003-02		538-C-B008-02	
	ORIGINAL ID ----->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	LAB SAMPLE ID --->	23396.01		23458.02		23548.01		23458.01		23797.01		23360.01	
	ID FROM REPORT -->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	SAMPLE DATE ----->	08/31/95		09/08/95		09/18/95		09/08/95		10/12/95		08/28/95	
	DATE EXTRACTED -->	09/05/95		09/13/95		09/19/95		09/13/95		10/14/95		08/30/95	
	DATE ANALYZED --->	09/08/95		09/23/95		09/25/95		09/23/95		10/24/95		09/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23447	NV	23535	NV	23447	NV	23720	NV	23359	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol					43.	J						
85-01-8	Phenanthrene			220.	J								
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene			540.	J	81.	J					110.	J
129-00-0	Pyrene	82.	J	470.	J	120.	J	180.	J			120.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene			260.	J	55.	J					57.	J
218-01-9	Chrysene			340.	J	54.	J					82.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)			79.	J	100.	J	110.	J				
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene			230.	J	56.	J					78.	J
207-08-9	Benzo(k)fluoranthene			300.	J	57.	J					64.	J
50-32-8	Benzo(a)pyrene			370.	J	66.	J					73.	J
193-39-5	Indeno(1,2,3-cd)pyrene			190.	J							37.	J
53-70-3	Dibenzo(a,h)anthracene			85.	J								
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene			220.	J	44.	J					44.	J
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA																	
	SAMPLE ID ------->	070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		528-C-B003-02		538-C-B008-02	
	ORIGINAL ID ----->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	LAB SAMPLE ID --->	23396.01		23458.02		23548.01		23458.01		23797.01		23360.01	
	ID FROM REPORT -->	070CB00101		087CB00101		097CB00301		172CB00301		528CB00302		538CB00802	
	SAMPLE DATE ----->	08/31/95		09/08/95		09/18/95		09/08/95		10/12/95		08/28/95	
	DATE EXTRACTED -->	09/05/95		09/13/95		09/19/95		09/13/95		10/14/95		08/30/95	
	DATE ANALYZED --->	09/08/95		09/23/95		09/25/95		09/23/95		10/24/95		09/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23447	NV	23535	NV	23447	NV	23720	NV	23359	NV
55-18-5	N-Nitrosodiethylamine												
120-58-1	Isosafrole												
109-06-8	2-Picoline												
62-44-2	Phenacetin												
98-86-2	Acetophenone												
930-55-2	N-Nitrosopyrrolidine												
119-93-7	3,3-Dimethylbenzidine												
91-80-5	Methapyrilene												
59-89-2	N-Nitrosomorpholine												
95-53-4	o-Toludine												
2303-16-4	Diallate												
100-75-4	N-Nitrosopiperidine												
52-85-7	Famphur												
122-09-8	alpha, alpha-Dimethylphenethylamine												
87-65-0	2,6-Dichlorophenol												
106-50-3	p-Phenylenediamine												
95-94-3	1,2,4,5-Tetrachlorobenzene											53.	J
298-02-2	Phorate												
130-15-4	1,4-Naphthoquinone												
99-65-0	1,3-Dinitrobenzene												
62-75-9	N-Nitrosodimethylamine												
58-90-2	2,3,4,6-Tetrachlorophenol												
608-93-5	Pentachlorobenzene												
56-57-5	4-Nitroquinoline 1-oxide												
510-15-6	Chlorobenzilate												
297-97-2	Thionazin												
298-04-4	Disulfoton												
91-59-8	2-Naphthylamine												
465-73-6	Isodrin												
99-55-8	5-Nitro-o-toluidine												
122-39-4	Diphenylamine												
99-35-4	1,3,5-Trinitrobenzene												
92-67-1	4-Aminobiphenyl												
1888-71-7	Hexachloropropene												
82-68-8	Pentachloronitrobenzene												
66-27-3	Methyl methanesulfonate												

APX9 SVOA																	
	SAMPLE ID ------->	540-C-B001-02		542-C-B006-02		543-C-B002-02		543-C-B003-02		543-C-B004-02		551-C-B002-01	
	ORIGINAL ID ----->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	LAB SAMPLE ID --->	23387.03		23369.01		23797.02		23789.01		23387.04		23704.01	
	ID FROM REPORT -->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	SAMPLE DATE ----->	08/30/95		08/30/95		10/12/95		10/11/95		08/30/95		09/29/95	
	DATE EXTRACTED -->	09/01/95		09/01/95		10/14/95		10/14/95		09/01/95		10/06/95	
	DATE ANALYZED --->	09/07/95		09/08/95		10/24/95		10/24/95		09/07/95		10/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23359	NV	23720	NV	23720	NV	23386	NV	23704	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol	38.	J										
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene												
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene												
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene	42.	J							84.	J		
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran									86.	J		

APX9 SVOA													
	SAMPLE ID ------->	540-C-B001-02		542-C-B006-02		543-C-B002-02		543-C-B003-02		543-C-B004-02		551-C-B002-01	
	ORIGINAL ID ----->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	LAB SAMPLE ID --->	23387.03		23369.01		23797.02		23789.01		23387.04		23704.01	
	ID FROM REPORT -->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	SAMPLE DATE ----->	08/30/95		08/30/95		10/12/95		10/11/95		08/30/95		09/29/95	
	DATE EXTRACTED -->	09/01/95		09/01/95		10/14/95		10/14/95		09/01/95		10/06/95	
	DATE ANALYZED --->	09/07/95		09/08/95		10/24/95		10/24/95		09/07/95		10/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23359	NV	23720	NV	23720	NV	23386	NV	23704	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene									170.	J		
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol	45.	J										
85-01-8	Phenanthrene	160.	J							780.		100.	J
120-12-7	Anthracene									230.	J		
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	310.	J			140.	J			710.		200.	J
129-00-0	Pyrene	410.				130.	J			660.		210.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	150.	J			88.	J			240.	J	110.	J
218-01-9	Chrysene	220.	J			100.	J			290.	J	140.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)									150.	J	85.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	210.	J							190.	J		
207-08-9	Benzo(k)fluoranthene	160.	J			100.	J			160.	J	200.	J
50-32-8	Benzo(a)pyrene	170.	J			80.	J			180.	J	140.	J
193-39-5	Indeno(1,2,3-cd)pyrene	120.	J							110.	J	110.	J
53-70-3	Dibenzo(a,h)anthracene	52.	J							64.	J		
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene	140.	J							130.	J	110.	J
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA							
SAMPLE ID ------->	540-C-B001-02	542-C-B006-02	543-C-B002-02	543-C-B003-02	543-C-B004-02	551-C-B002-01
ORIGINAL ID ----->	540CB00102	542CB00602	543CB00202	543CB00302	543CB00402	551CB00201
LAB SAMPLE ID --->	23387.03	23369.01	23797.02	23789.01	23387.04	23704.01
ID FROM REPORT -->	540CB00102	542CB00602	543CB00202	543CB00302	543CB00402	551CB00201
SAMPLE DATE ----->	08/30/95	08/30/95	10/12/95	10/11/95	08/30/95	09/29/95
DATE EXTRACTED -->	09/01/95	09/01/95	10/14/95	10/14/95	09/01/95	10/06/95
DATE ANALYZED --->	09/07/95	09/08/95	10/24/95	10/24/95	09/07/95	10/11/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23386 NV	23359 NV	23720 NV	23720 NV	23386 NV	23704 NV
55-18-5 N-Nitrosodiethylamine						
120-58-1 Isosafrole						
109-06-8 2-Picoline						
62-44-2 Phenacetin						
98-86-2 Acetophenone						
930-55-2 N-Nitrosopyrrolidine						
119-93-7 3,3-Dimethylbenzidine						
91-80-5 Methapyrilene						
59-89-2 N-Nitrosomorpholine						
95-53-4 o-Toludine						
2303-16-4 Diallate						
100-75-4 N-Nitrosopiperidine						
52-85-7 Famphur						
122-09-8 alpha, alpha-Dimethylphenethylamine						
87-65-0 2,6-Dichlorophenol						
106-50-3 p-Phenylenediamine						
95-94-3 1,2,4,5-Tetrachlorobenzene		41. JB				
298-02-2 Phorate						
130-15-4 1,4-Naphthoquinone						
99-65-0 1,3-Dinitrobenzene						
62-75-9 N-Nitrosodimethylamine						
58-90-2 2,3,4,6-Tetrachlorophenol						
608-93-5 Pentachlorobenzene						
56-57-5 4-Nitroquinoline 1-oxide						
510-15-6 Chlorobenzilate						
297-97-2 Thionazin						
298-04-4 Disulfoton						
91-59-8 2-Naphthylamine						
465-73-6 Isodrin						
99-55-8 5-Nitro-o-toluidine						
122-39-4 Diphenylamine						
99-35-4 1,3,5-Trinitrobenzene						
92-67-1 4-Aminobiphenyl						
1888-71-7 Hexachloropropene						
82-68-8 Pentachloronitrobenzene						
66-27-3 Methyl methanesulfonate						

APX9 SVOA																	
	SAMPLE ID ------->	540-C-B001-02		542-C-B006-02		543-C-B002-02		543-C-B003-02		543-C-B004-02		551-C-B002-01	
	ORIGINAL ID ----->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	LAB SAMPLE ID --->	23387.03		23369.01		23797.02		23789.01		23387.04		23704.01	
	ID FROM REPORT -->	540CB00102		542CB00602		543CB00202		543CB00302		543CB00402		551CB00201	
	SAMPLE DATE ----->	08/30/95		08/30/95		10/12/95		10/11/95		08/30/95		09/29/95	
	DATE EXTRACTED -->	09/01/95		09/01/95		10/14/95		10/14/95		09/01/95		10/06/95	
	DATE ANALYZED --->	09/07/95		09/08/95		10/24/95		10/24/95		09/07/95		10/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23359	NV	23720	NV	23720	NV	23386	NV	23704	NV
60-11-7	p-(Dimethylamino)azobenzene												
53-96-3	Acetamidofluorene												
57-97-6	7,12-Dimethylbenz(a)anthracene												
56-49-5	3-Methylcholanthrene												
60-51-5	Dimethoate												
96-12-8	1,2-Dibromo-3-Chloropropane												
70-30-4	Hexachlorophene												
143-50-0	Kepone												
134-32-7	1-Naphthylamine												
23950-58-5	Pronamide												
126-68-1	O,O,O-Triethylphosphorothioate												
3689-24-5	Sulfotep												
88-85-7	Dinoseb												
56-38-2	Parathion												
86-74-8	Carbazole									130.	J		
108-39-4	3-Methylphenol (m-Cresol)												

APX9 SVOA																	
	SAMPLE ID ------->	551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-S-B003-01		576-C-B003-01	
	ORIGINAL ID ----->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	LAB SAMPLE ID --->	23704.02		23471.01		23471.02		23471.03		23438.11		23437.02	
	ID FROM REPORT -->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/11/95		09/11/95		09/11/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	10/06/95		09/13/95		09/13/95		09/13/95		09/08/95		09/08/95	
	DATE ANALYZED --->	10/11/95		09/22/95		09/22/95		09/22/95		09/21/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV	23424	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol												
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene									170.	J		
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene	88.	J							73.	J		
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene			170.	J					170.	J		
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran									110.	J		

APX9 SVOA													
	SAMPLE ID ------->	551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-S-B003-01		576-C-B003-01	
	ORIGINAL ID ----->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	LAB SAMPLE ID --->	23704.02		23471.01		23471.02		23471.03		23438.11		23437.02	
	ID FROM REPORT -->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/11/95		09/11/95		09/11/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	10/06/95		09/13/95		09/13/95		09/13/95		09/08/95		09/08/95	
	DATE ANALYZED --->	10/11/95		09/22/95		09/22/95		09/22/95		09/21/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV	23424	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene			110.	J					190.	J		
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene	340.	J	1500.		320.	J			1200.		110.	J
120-12-7	Anthracene			290.	J					250.	J		
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	280.	J	2500.		400.	J			1200.		210.	J
129-00-0	Pyrene	310.	J	1900.		330.	J			1300.		180.	J
85-68-7	Butylbenzylphthalate									440.		340.	J
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	230.	J	1100.		220.	J			610.		97.	J
218-01-9	Chrysene	430.	J	1300.		250.	J			710.		120.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	270.	J	110.	J	190.	J	99.	J	240.	J	81.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	220.	J							380.	J	97.	J
207-08-9	Benzo(k)fluoranthene	270.	J	1500.		300.	J			410.		68.	J
50-32-8	Benzo(a)pyrene	270.	J	1200.		230.	J			460.		110.	J
193-39-5	Indeno(1,2,3-cd)pyrene	200.	J	760.		130.	J			220.	J	68.	J
53-70-3	Dibenzo(a,h)anthracene	140.	J	390.	J					140.	J		
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene	200.	J	980.		180.	J			270.	J	76.	J
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA													
	SAMPLE ID ------->	551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-S-B003-01		576-C-B003-01	
	ORIGINAL ID ----->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	LAB SAMPLE ID --->	23704.02		23471.01		23471.02		23471.03		23438.11		23437.02	
	ID FROM REPORT -->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/11/95		09/11/95		09/11/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	10/06/95		09/13/95		09/13/95		09/13/95		09/08/95		09/08/95	
	DATE ANALYZED --->	10/11/95		09/22/95		09/22/95		09/22/95		09/21/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV	23424	NV
55-18-5	N-Nitrosodiethylamine												
120-58-1	Isosafrole												
109-06-8	2-Picoline												
62-44-2	Phenacetin												
98-86-2	Acetophenone												
930-55-2	N-Nitrosopyrrolidine												
119-93-7	3,3-Dimethylbenzidine												
91-80-5	Methapyrilene												
59-89-2	N-Nitrosomorpholine												
95-53-4	o-Toludine												
2303-16-4	Diallate												
100-75-4	N-Nitrosopiperidine												
52-85-7	Famphur												
122-09-8	alpha, alpha-Dimethylphenethylamine												
87-65-0	2,6-Dichlorophenol												
106-50-3	p-Phenylenediamine												
95-94-3	1,2,4,5-Tetrachlorobenzene												
298-02-2	Phorate												
130-15-4	1,4-Naphthoquinone												
99-65-0	1,3-Dinitrobenzene												
62-75-9	N-Nitrosodimethylamine												
58-90-2	2,3,4,6-Tetrachlorophenol												
608-93-5	Pentachlorobenzene												
56-57-5	4-Nitroquinoline 1-oxide												
510-15-6	Chlorobenzilate												
297-97-2	Thionazin												
298-04-4	Disulfoton												
91-59-8	2-Naphthylamine												
465-73-6	Isodrin												
99-55-8	5-Nitro-o-toluidine												
122-39-4	Diphenylamine												
99-35-4	1,3,5-Trinitrobenzene												
92-67-1	4-Aminobiphenyl												
1888-71-7	Hexachloropropene												
82-68-8	Pentachloronitrobenzene												
66-27-3	Methyl methanesulfonate							230.	J				

APX9 SVOA													
	SAMPLE ID ------->	551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-S-B003-01		576-C-B003-01	
	ORIGINAL ID ----->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	LAB SAMPLE ID --->	23704.02		23471.01		23471.02		23471.03		23438.11		23437.02	
	ID FROM REPORT -->	551CB00601		573CB00201		573CB00302		573CB00502		576SB00301		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/11/95		09/11/95		09/11/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	10/06/95		09/13/95		09/13/95		09/13/95		09/08/95		09/08/95	
	DATE ANALYZED --->	10/11/95		09/22/95		09/22/95		09/22/95		09/21/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV	23424	NV
60-11-7	p-(Dimethylamino)azobenzene												
53-96-3	Acetamidofluorene												
57-97-6	7,12-Dimethylbenz(a)anthracene												
56-49-5	3-Methylcholanthrene												
60-51-5	Dimethoate												
96-12-8	1,2-Dibromo-3-Chloropropane												
70-30-4	Hexachlorophene												
143-50-0	Kepone												
134-32-7	1-Naphthylamine												
23950-58-5	Pronamide												
126-68-1	O,O,O-Triethylphosphorothioate												
3689-24-5	Sulfotep												
88-85-7	Dinoseb												
56-38-2	Parathion												
86-74-8	Carbazole			170.	J					160.	J		
108-39-4	3-Methylphenol (m-Cresol)												

APX9 SVOA																	
	SAMPLE ID ------->	576-S-B003-02		576-S-B004-01		576-S-B004-02		576-S-B005-01		576-S-B005-02		579-C-B004-01	
	ORIGINAL ID ----->	576SB00302		576SB00401		576SB00402		576SB00501		576SB00502		579CB00401	
	LAB SAMPLE ID --->	23438.12		23438.15		23438.16		23438.17		23438.18		23484.01	
	ID FROM REPORT -->	576SB00302		576SB00401		576SB00402		576SB00501		576SB00502		579CB00401	
	SAMPLE DATE ----->	09/06/95		09/06/95		09/06/95		09/06/95		09/06/95		09/12/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		09/15/95	
	DATE ANALYZED --->	09/21/95		09/21/95		09/21/95		09/21/95		09/21/95		09/22/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23424	NV	23424	NV	23424	NV	23424	NV	23424	NV	23484	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene			160.	J			150.	J			90.	J
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate							44.	J				
206-44-0	Fluoranthene			300.	J			250.	J			170.	J
129-00-0	Pyrene			310.	J			240.	J			150.	J
85-68-7	Butylbenzylphthalate	56.	J					520.					
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene			140.	J			120.	J			91.	J
218-01-9	Chrysene			180.	J			170.	J			130.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	3200.		110.	J	200.	J	98.	J	270.	J	98.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene							92.	J				
207-08-9	Benzo(k)fluoranthene			250.	J			120.	J			160.	J
50-32-8	Benzo(a)pyrene			140.	J			140.	J			99.	J
193-39-5	Indeno(1,2,3-cd)pyrene			89.	J			80.	J			81.	J
53-70-3	Dibenzo(a,h)anthracene			58.	J			43.	J				
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene			120.	J			110.	J			86.	J
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA															
	SAMPLE ID ------->	580-C-B002-01		583-C-B006-01		598-C-B002-02		599-C-B005-02		605-C-B010-01		605-C-B011-02	
	ORIGINAL ID ----->	580CB00201		583CB00601		598CB00202		599CB00502		605CB01001		605CB01102	
	LAB SAMPLE ID --->	23523.01		23535.01		23560.01		23574.01		23593.02		23593.01	
	ID FROM REPORT -->	580CB00201		583CB00601		598CB00202		599CB00502		605CB01001		605CB01102	
	SAMPLE DATE ----->	09/14/95		09/15/95		09/19/95		09/20/95		09/21/95		09/21/95	
	DATE EXTRACTED -->	09/18/95		09/19/95		09/20/95		09/22/95		09/26/95		09/26/95	
	DATE ANALYZED --->	09/23/95		09/26/95		09/25/95		09/26/95		10/05/95		10/05/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23502	NV	23535	NV	23560	NV	23560	NV	23593	NV	23593	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol	65.	J			77.	J						
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine			47.	J								
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene			38.	J								
91-20-3	Naphthalene					100.	J			100.	J		
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene	48.	J			140.	J	120.	J	47.	J		
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene	110.	J	160.	J	1800.		640.	J	470.		49.	J
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol			55.	J								
132-64-9	Dibenzofuran					810.				120.	J		

APX9 SVOA															
	SAMPLE ID ------->	580-C-B002-01		583-C-B006-01		598-C-B002-02		599-C-B005-02		605-C-B010-01		605-C-B011-02	
	ORIGINAL ID ----->	580CB00201		583CB00601		598CB00202		599CB00502		605CB01001		605CB01102	
	LAB SAMPLE ID --->	23523.01		23535.01		23560.01		23574.01		23593.02		23593.01	
	ID FROM REPORT -->	580CB00201		583CB00601		598CB00202		599CB00502		605CB01001		605CB01102	
	SAMPLE DATE ----->	09/14/95		09/15/95		09/19/95		09/20/95		09/21/95		09/21/95	
	DATE EXTRACTED -->	09/18/95		09/19/95		09/20/95		09/22/95		09/26/95		09/26/95	
	DATE ANALYZED --->	09/23/95		09/26/95		09/25/95		09/26/95		10/05/95		10/05/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23502	NV	23535	NV	23560	NV	23560	NV	23593	NV	23593	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate			83.	JB								
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene	70.	J	71.	J	1700.		210.	J	340.	J		
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol			59.	J	110.	J					90.	J
85-01-8	Phenanthrene	710.		680.		3400.		420.	J	900.			
120-12-7	Anthracene	130.	J	110.	J	970.		420.	J	400.	J		
84-74-2	Di-n-butylphthalate							130.	J				
206-44-0	Fluoranthene	1400.		800.		4200.		1000.		1100.		86.	J
129-00-0	Pyrene	1200.		740.		3400.		1800.		1100.		170.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	600.		260.	J	2100.		380.	J	240.	J	85.	J
218-01-9	Chrysene	710.		340.	J	1700.		570.	J	280.	J	130.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	83.	JB	53.	JB	59.	JB	99.	J	230.	JB	410.	B
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	530.		290.	J	1800.				100.	J	90.	J
207-08-9	Benzo(k)fluoranthene	570.		260.	J	1300.		380.	J	130.	J	120.	J
50-32-8	Benzo(a)pyrene	680.		300.	J	1800.		310.	J	110.	J	110.	J
193-39-5	Indeno(1,2,3-cd)pyrene	350.	J	160.	J	820.		160.	J	49.	J	92.	J
53-70-3	Dibenzo(a,h)anthracene	200.	J	95.	J	570.							
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene	400.		220.	J	850.		350.	J	57.	J	88.	J
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 SVOA											
	SAMPLE ID ------->	GDE-C-B001-01		GDE-C-B002-02		GDE-C-B009-01		GDE-C-B010-02			
	ORIGINAL ID ----->	GDECB00101		GDECB00202		GDECB00901		GDECB01002			
	LAB SAMPLE ID --->	23502.01		23502.02		23484.03		23484.02			
	ID FROM REPORT -->	GDECB00101		GDECB00202		GDECB00901		GDECB01002			
	SAMPLE DATE ----->	09/13/95		09/13/95		09/12/95		09/12/95			
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95			
	DATE ANALYZED --->	09/23/95		09/23/95		09/23/95		09/22/95			
	MATRIX ---------->	Soil		Soil		Soil		Soil			
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A		
CAS #	Parameter	23502	NV	23502	NV	23484	NV	23484	NV		
108-95-2	Phenol										
111-44-4	bis(2-Chloroethyl)ether										
95-57-8	2-Chlorophenol										
541-73-1	1,3-Dichlorobenzene										
106-46-7	1,4-Dichlorobenzene										
95-50-1	1,2-Dichlorobenzene										
95-48-7	2-Methylphenol (o-Cresol)										
108-60-1	2,2'-oxybis(1-Chloropropane)										
106-44-5	4-Methylphenol (p-Cresol)										
621-64-7	N-Nitroso-di-n-propylamine										
67-72-1	Hexachloroethane										
98-95-3	Nitrobenzene										
78-59-1	Isophorone										
88-75-5	2-Nitrophenol										
105-67-9	2,4-Dimethylphenol										
120-83-2	2,4-Dichlorophenol										
120-82-1	1,2,4-Trichlorobenzene										
91-20-3	Naphthalene										
106-47-8	4-Chloroaniline										
111-91-1	bis(2-Chloroethoxy)methane										
87-68-3	Hexachlorobutadiene										
59-50-7	4-Chloro-3-methylphenol										
91-57-6	2-Methylnaphthalene										
77-47-4	Hexachlorocyclopentadiene										
88-06-2	2,4,6-Trichlorophenol										
95-95-4	2,4,5-Trichlorophenol										
91-58-7	2-Chloronaphthalene										
88-74-4	2-Nitroaniline										
131-11-3	Dimethylphthalate										
208-96-8	Acenaphthylene										
606-20-2	2,6-Dinitrotoluene										
99-09-2	3-Nitroaniline										
83-32-9	Acenaphthene	360.	J								
51-28-5	2,4-Dinitrophenol										
100-02-7	4-Nitrophenol										
132-64-9	Dibenzofuran	190.	J								

APX9 SVOA													
	SAMPLE ID ------->	GDE-C-B001-01			GDE-C-B002-02			GDE-C-B009-01			GDE-C-B010-02		
	ORIGINAL ID ----->	GDECB00101			GDECB00202			GDECB00901			GDECB01002		
	LAB SAMPLE ID --->	23502.01			23502.02			23484.03			23484.02		
	ID FROM REPORT -->	GDECB00101			GDECB00202			GDECB00901			GDECB01002		
	SAMPLE DATE ----->	09/13/95			09/13/95			09/12/95			09/12/95		
	DATE EXTRACTED -->	09/15/95			09/15/95			09/15/95			09/15/95		
	DATE ANALYZED --->	09/23/95			09/23/95			09/23/95			09/22/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil		
	UNITS ---------->	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A
CAS #	Parameter	23502		NV	23502		NV	23484		NV	23484		NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene	260.	J										
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene	840.						340.	J				
120-12-7	Anthracene	130.	J										
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	220.	J		130.	J		750.	J		250.	J	
129-00-0	Pyrene	160.	J		130.	J		580.	J		290.	J	
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	99.	J					390.	J		150.	J	
218-01-9	Chrysene	110.	J		85.	J		420.	J		160.	J	
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	140.	J		120.	J		120.	J		130.	J	
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	76.	J					260.	J		160.	J	
207-08-9	Benzo(k)fluoranthene	100.	J					250.	J		150.	J	
50-32-8	Benzo(a)pyrene	91.	J					300.	J		160.	J	
193-39-5	Indeno(1,2,3-cd)pyrene							160.	J				
53-70-3	Dibenzo(a,h)anthracene												
62-50-0	Ethyl methanesulfonate												
191-24-2	Benzo(g,h,i)perylene	110.	J					160.	J				
100-51-6	Benzyl alcohol												
924-16-3	N-Nitroso-di-n-butylamine												
140-57-8	Aramite												
110-86-1	Pyridine												
298-00-0	Methyl parathion												
62-53-3	Aniline												
10595-95-6	N-Nitrosomethylethylamine												
94-59-7	Safrole												

APX9 VOA																	
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE ANALYZED --->	10/03/95		10/03/95		09/12/95		10/20/95		10/06/95		10/05/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
74-87-3	Chloromethane												
74-83-9	Bromomethane												
75-01-4	Vinyl chloride												
75-00-3	Chloroethane												
75-09-2	Methylene chloride					13.							
67-64-1	Acetone					12.				290.		140.	
75-15-0	Carbon disulfide												
75-35-4	1,1-Dichloroethylene												
75-34-3	1,1-Dichloroethane												
540-59-0	1,2-Dichloroethene (total)												
67-66-3	Chloroform					2.	J						
107-06-2	1,2-Dichloroethane												
78-93-3	2-Butanone (MEK)											31.	J
71-55-6	1,1,1-Trichloroethane												
56-23-5	Carbon tetrachloride												
108-05-4	Vinyl acetate												
75-27-4	Bromodichloromethane												
78-87-5	1,2-Dichloropropane												
10061-01-5	cis-1,3-Dichloropropene												
79-01-6	Trichloroethene												
124-48-1	Dibromochloromethane												
79-00-5	1,1,2-Trichloroethane												
71-43-2	Benzene												
10061-02-6	trans-1,3-Dichloropropene												
75-25-2	Bromoform												
108-10-1	4-Methyl-2-Pentanone (MIBK)												
591-78-6	2-Hexanone												
127-18-4	Tetrachloroethene					3.	J						
108-88-3	Toluene												
79-34-5	1,1,2,2-Tetrachloroethane												
108-90-7	Chlorobenzene												
100-41-4	Ethylbenzene												
100-42-5	Styrene												
1330-20-7	Xylene (Total)												
110-75-8	2-Chloroethylvinyl ether												
107-02-8	Acrolein												
74-88-4	Methyl iodide												

SW846-DIOX													
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/29/95		09/29/95		09/08/95		10/17/95		09/29/95		09/29/95	
	DATE ANALYZED --->	10/03/95		10/03/95		09/15/95		10/20/95		10/03/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
1746-01-6	2378-TCDD												
40321-76-4	12378-PeCDD											0.42	
39227-28-6	123478-HxCDD												
57653-85-7	123678-HxCDD	3.078											
19408-74-3	123789-HxCDD	2.108											
35822-46-9	1234678-HpCDD	60.977	B	1.289	B	63.6	B	0.638		36.052	B	2.513	B
3268-87-9	OCDD	376.164	B	7.493	B	536.	B	19.51	B	236.857	B	17.15	B
51207-31-9	2378-TCDF	3.376											
57117-41-6	12378-PeCDF												
57117-31-4	23478-PeCDF	0.908											
70648-26-9	123478-HxCDF	1.16	X							1.548		0.736	
57117-44-9	123678-HxCDF	2.254	XB							0.699	XB	0.425	XB
72918-21-9	123789-HxCDF												
60851-34-5	234678-HxCDF	1.342	XB	0.392	B					0.504	B	0.491	B
67562-39-4	1234678-HpCDF	19.938	B	0.806	XB	4.76	B	0.773	B	15.699	B	7.017	B
55673-89-7	1234789-HpCDF	0.97	X										
39001-02-0	OCDF	25.932	B	1.375	B	16.9	B	1.906	B	53.902	B	9.694	B
41903-57-5	Total Tetra-Dioxins	0.979				5.64							
36088-22-9	Total Penta-Dioxins					3.04						0.42	
34465-46-8	Total Hexa-Dioxins	22.137				34.6				11.571		2.548	
37871-00-4	Total Hepta-Dioxins	194.57		3.283		400.		1.566		277.81		8.628	
55722-27-5	Total Tetra-Furans	5.542											
30602-15-4	Total Penta-Furans	14.52				1.32				0.606			
55684-94-1	Total Hexa-Furans	18.334		0.392		4.				6.548		1.932	
38998-75-3	Total Hepta-Furans	41.917				15.4		0.773		23.876		7.952	
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-DIOX																	
	SAMPLE ID ------->	067-C-B002-02		070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		528-C-B003-02	
	ORIGINAL ID ----->	067CB00202		070CB00101		087CB00101		097CB00301		172CB00301		528CB00302	
	LAB SAMPLE ID --->	23801.02		23396.01		23458.02		23548.01		23458.01		23797.01	
	ID FROM REPORT -->	067CB00202		070CB00101		087CB00101		097CB00301		172CB00301		528CB00302	
	SAMPLE DATE ----->	10/13/95		08/31/95		09/08/95		09/18/95		09/08/95		10/12/95	
	DATE EXTRACTED -->	10/17/95		09/08/95		09/11/95		09/22/95		09/11/95		10/25/95	
	DATE ANALYZED --->	10/20/95		09/14/95		09/15/95		09/26/95		09/15/95		10/27/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23801	NV	23386	NV	23447	NV	23535	NV	23447	NV	23720	NV
1746-01-6	2378-TCDD												
40321-76-4	12378-PeCDD												
39227-28-6	123478-HxCDD												
57653-85-7	123678-HxCDD												
19408-74-3	123789-HxCDD												
35822-46-9	1234678-HpCDD	0.476	X	0.855	X	41.9	B	13.543		2.12		0.428	XB
3268-87-9	OCDD	2.578	B	11.2	B	715.	B	142.252	B	16.9	B	7.382	B
51207-31-9	2378-TCDF												
57117-41-6	12378-PeCDF												
57117-31-4	23478-PeCDF												
70648-26-9	123478-HxCDF												
57117-44-9	123678-HxCDF					1.66	X						
72918-21-9	123789-HxCDF			0.684	B					0.612			
60851-34-5	234678-HxCDF	0.23	X									0.26	XB
67562-39-4	1234678-HpCDF	0.547	XB	1.409	B	12.2	B	2.221	XB	0.972	XB	0.52	XB
55673-89-7	1234789-HpCDF												
39001-02-0	OCDF	1.167	B	1.1	B	24.8	B	3.637	B	1.45	B	0.812	B
41903-57-5	Total Tetra-Dioxins	0.177								1.7			
36088-22-9	Total Penta-Dioxins												
34465-46-8	Total Hexa-Dioxins							13.673		7.22			
37871-00-4	Total Hepta-Dioxins					86.5		33.354		6.96		0.406	
55722-27-5	Total Tetra-Furans	8.614		0.852		1.17				0.728			
30602-15-4	Total Penta-Furans	13.554											
55684-94-1	Total Hexa-Furans			0.684		8.8		1.83		0.612			
38998-75-3	Total Hepta-Furans			1.409		27.4							
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-DIOX																	
	SAMPLE ID ------->	538-C-B008-02		540-C-B001-02		542-C-B006-02		543-C-B002-02		543-C-B003-02		543-C-B004-02	
	ORIGINAL ID ----->	538CB00802		540CB00102		542CB00602		543CB00202		543CB00302		543CB00402	
	LAB SAMPLE ID --->	23360.01		23387.03		23369.01		23797.02		23789.01		23387.04	
	ID FROM REPORT -->	538CB00802		540CB00102		542CB00602		543CB00202		543CB00302		543CB00402	
	SAMPLE DATE ----->	08/28/95		08/30/95		08/30/95		10/12/95		10/11/95		08/30/95	
	DATE EXTRACTED -->	08/30/95		09/05/95		08/31/95		10/17/95		10/17/95		09/05/95	
	DATE ANALYZED --->	09/01/95		09/08/95		09/05/95		10/20/95		10/20/95		09/08/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23359	NV	23386	NV	23359	NV	23720	NV	23720	NV	23386	NV
1746-01-6	2378-TCDD												
40321-76-4	12378-PeCDD					0.439	X						
39227-28-6	123478-HxCDD												
57653-85-7	123678-HxCDD	0.881	B	1.454		0.806		7.541				1.576	
19408-74-3	123789-HxCDD	0.963		0.953		0.361	X	1.896	X				
35822-46-9	1234678-HpCDD	72.304	B	73.796	B	1.632	B	243.678		3.493		86.377	B
3268-87-9	OCDD	807.314	B	659.151	B	11.588	B	1913.849	B	41.853	B	694.644	B
51207-31-9	2378-TCDF			1.335									
57117-41-6	12378-PeCDF					0.91							
57117-31-4	23478-PeCDF			0.527		0.816							
70648-26-9	123478-HxCDF			2.666		0.57		8.958	X	0.922	X		
57117-44-9	123678-HxCDF	0.502	XB	1.925		1.242	X					2.347	
72918-21-9	123789-HxCDF	0.518	XB			1.253	XB						
60851-34-5	234678-HxCDF					0.527	X			0.335			
67562-39-4	1234678-HpCDF	7.342	B	17.127	B	2.119	XB	35.435	B	9.697	B	12.735	B
55673-89-7	1234789-HpCDF					0.492		2.268					
39001-02-0	OCDF	38.476	B	32.547	B	3.524	B	271.273	B	32.885	B	54.022	B
41903-57-5	Total Tetra-Dioxins			0.853								0.94	
36088-22-9	Total Penta-Dioxins												
34465-46-8	Total Hexa-Dioxins	22.912		15.567		0.806		27.639				8.439	
37871-00-4	Total Hepta-Dioxins	583.667		145.481		2.983		430.475		3.493		163.826	
55722-27-5	Total Tetra-Furans			2.44									
30602-15-4	Total Penta-Furans			5.251		1.732		0.655				2.856	
55684-94-1	Total Hexa-Furans	4.264		14.001		0.57		19.761		0.845		9.423	
38998-75-3	Total Hepta-Furans	28.567		37.293				37.704		9.697		12.735	
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-DIOX																	
	SAMPLE ID ------->	551-C-B002-01		551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-C-B003-01	
	ORIGINAL ID ----->	551CB00201		551CB00601		573CB00201		573CB00302		573CB00502		576CB00301	
	LAB SAMPLE ID --->	23704.01		23704.02		23471.01		23471.02		23471.03		23437.02	
	ID FROM REPORT -->	551CB00201		551CB00601		573CB00201		573CB00302		573CB00502		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/29/95		09/11/95		09/11/95		09/11/95		09/06/95	
	DATE EXTRACTED -->	10/05/95		10/05/95		09/14/95		09/14/95		09/22/95		09/08/95	
	DATE ANALYZED --->	10/10/95		10/10/95		09/18/95		09/18/95		09/26/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23704	NV	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV
1746-01-6	2378-TCDD												
40321-76-4	12378-PeCDD												
39227-28-6	123478-HxCDD			0.712	X								
57653-85-7	123678-HxCDD			15.611									
19408-74-3	123789-HxCDD			3.117								1.797	X
35822-46-9	1234678-HpCDD	1.418	B	761.928	B	2.807	X	0.887		2.315		19.463	
3268-87-9	OCDD	21.538	B	9209.588	B	69.028	B	6.986	B	35.507	B	460.156	B
51207-31-9	2378-TCDF					0.878							
57117-41-6	12378-PeCDF												
57117-31-4	23478-PeCDF												
70648-26-9	123478-HxCDF	0.322	X					1.058					
57117-44-9	123678-HxCDF	0.332	B	22.451	XB	0.234	X						
72918-21-9	123789-HxCDF	0.409	B									0.642	XB
60851-34-5	234678-HxCDF	0.209		0.885	X								
67562-39-4	1234678-HpCDF	3.308	B	138.68	B	2.534	B	10.397	B	0.995	XB	0.976	XB
55673-89-7	1234789-HpCDF			6.01									
39001-02-0	OCDF	5.182	B	804.166	B	1.963	B	20.095	B	1.356	B	1.414	XB
41903-57-5	Total Tetra-Dioxins	0.334		0.609		1.299				0.748		5.563	
36088-22-9	Total Penta-Dioxins											4.425	
34465-46-8	Total Hexa-Dioxins			73.02		0.783				4.701		??????????	
37871-00-4	Total Hepta-Dioxins	4.504		1423.318		4.283		1.895		7.421		66.43	
55722-27-5	Total Tetra-Furans					0.878						1.192	
30602-15-4	Total Penta-Furans			6.771		1.622						??????????	
55684-94-1	Total Hexa-Furans	1.248		104.952		1.605		2.175					
38998-75-3	Total Hepta-Furans	3.718		144.692		2.534		10.397					
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-DIOX																	
	SAMPLE ID ------->	579-C-B004-01		580-C-B002-01		583-C-B006-01		598-C-B002-02		599-C-B005-02		605-C-B010-01	
	ORIGINAL ID ----->	579CB00401		580CB00201		583CB00601		598CB00202		599CB00502		605CB01001	
	LAB SAMPLE ID --->	23484.01		23523.01		23535.01		23560.01		23574.01		23593.02	
	ID FROM REPORT -->	579CB00401		580CB00201		583CB00601		598CB00202		599CB00502		605CB01001	
	SAMPLE DATE ----->	09/12/95		09/14/95		09/15/95		09/19/95		09/20/95		09/21/95	
	DATE EXTRACTED -->	09/14/95		09/22/95		09/18/95		09/22/95		09/22/95		09/29/95	
	DATE ANALYZED --->	09/18/95		09/26/95		09/20/95		09/26/95		09/26/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23484	NV	23502	NV	23535	NV	23560	NV	23560	NV	23593	NV
1746-01-6	2378-TCDD												
40321-76-4	12378-PeCDD												
39227-28-6	123478-HxCDD												
57653-85-7	123678-HxCDD			1.172									
19408-74-3	123789-HxCDD												
35822-46-9	1234678-HpCDD			5.113	X	11.646		3.076		2.514		1.141	B
3268-87-9	OCDD	7.337	B	246.259	B	151.126	B	22.639	B	39.486	B	9.102	B
51207-31-9	2378-TCDF												
57117-41-6	12378-PeCDF			0.723	X								
57117-31-4	23478-PeCDF												
70648-26-9	123478-HxCDF			0.729	XB							1.144	
57117-44-9	123678-HxCDF			1.459								0.41	B
72918-21-9	123789-HxCDF												
60851-34-5	234678-HxCDF											0.397	B
67562-39-4	1234678-HpCDF	0.511	XB	12.226	B	3.318	XB	1.491	B	0.876	XB	17.454	B
55673-89-7	1234789-HpCDF												
39001-02-0	OCDF	0.511	XB	23.67	B	8.171	B	1.258	B	0.885	XB	29.586	B
41903-57-5	Total Tetra-Dioxins							1.525					
36088-22-9	Total Penta-Dioxins							1.555					
34465-46-8	Total Hexa-Dioxins			3.536		6.876		7.015		4.229		1.028	
37871-00-4	Total Hepta-Dioxins			7.268		34.229		9.151		10.029		3.525	
55722-27-5	Total Tetra-Furans												
30602-15-4	Total Penta-Furans			0.9									
55684-94-1	Total Hexa-Furans			2.535		3.415		0.472				3.199	
38998-75-3	Total Hepta-Furans			13.536		8.409		1.491				18.883	
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-DIOX											
	SAMPLE ID ------->	605-C-B011-02		GDE-C-B001-01		GDE-C-B002-02		GDE-C-B009-01		GDE-C-B010-02	
	ORIGINAL ID ----->	605CB01102		GDECB00101		GDECB00202		GDECB00901		GDECB01002	
	LAB SAMPLE ID --->	23593.01		23502.01		23502.02		23484.03		23484.02	
	ID FROM REPORT -->	605CB01102		GDECB00101		GDECB00202		GDECB00901		GDECB01002	
	SAMPLE DATE ----->	09/21/95		09/13/95		09/13/95		09/12/95		09/12/95	
	DATE EXTRACTED -->	09/29/95		09/18/95		09/18/95		09/14/95		09/14/95	
	DATE ANALYZED --->	10/03/95		09/20/95		09/20/95		09/18/95		09/18/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A	NG/KG	A
CAS #	Parameter	23593	NV	23502	NV	23502	NV	23484	NV	23484	NV
1746-01-6	2378-TCDD										
40321-76-4	12378-PeCDD										
39227-28-6	123478-HxCDD										
57653-85-7	123678-HxCDD										
19408-74-3	123789-HxCDD										
35822-46-9	1234678-HpCDD	4.851	B	8.164		2.469		4.77			
3268-87-9	OCDD	55.883	B	128.423	B	17.249	B	74.172	B	6.708	B
51207-31-9	2378-TCDF										
57117-41-6	12378-PeCDF										
57117-31-4	23478-PeCDF										
70648-26-9	123478-HxCDF	0.615	X								
57117-44-9	123678-HxCDF	0.461	XB								
72918-21-9	123789-HxCDF										
60851-34-5	234678-HxCDF	0.518	XB								
67562-39-4	1234678-HpCDF	2.891	B	0.765	XB	0.886	XB	2.529	XB	2.085	B
55673-89-7	1234789-HpCDF										
39001-02-0	OCDF	3.247	XB	0.759	XB	2.021	B	4.476	B	3.137	B
41903-57-5	Total Tetra-Dioxins			1.42							
36088-22-9	Total Penta-Dioxins			1.529							
34465-46-8	Total Hexa-Dioxins			14.652		1.625		5.114		0.867	
37871-00-4	Total Hepta-Dioxins	7.672		28.119		8.932		14.46			
55722-27-5	Total Tetra-Furans										
30602-15-4	Total Penta-Furans	0.897									
55684-94-1	Total Hexa-Furans	2.126									
38998-75-3	Total Hepta-Furans	4.945								2.085	
319-84-6	alpha-BHC	??????????		??????????		??????????		??????????		??????????	
58-89-9	gamma-BHC (Lindane)	??????????		??????????		??????????		??????????		??????????	
319-86-8	delta-BHC	??????????		??????????		??????????		??????????		??????????	
76-44-8	Heptachlor	??????????		??????????		??????????		??????????		??????????	
309-00-2	Aldrin	??????????		??????????		??????????		??????????		??????????	
1024-57-3	Heptachlor epoxide	??????????		??????????		??????????		??????????		??????????	
959-98-8	Endosulfan I	??????????		??????????		??????????		??????????		??????????	
72-55-9	4,4'-DDE	??????????		??????????		??????????		??????????		??????????	
60-57-1	Dieldrin	??????????		??????????		??????????		??????????		??????????	
72-20-8	Endrin	??????????		??????????		??????????		??????????		??????????	
33213-65-9	Endosulfan II	??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	005-S-B001-01		005-S-B001-02		005-S-B002-01		005-S-B002-02		005-S-B003-01		005-S-B003-02	
	ORIGINAL ID ----->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	LAB SAMPLE ID --->	23627.15		23627.19		23627.16		23627.20		23596.07		23596.08	
	ID FROM REPORT -->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		09/25/95		09/22/95		09/22/95	
	DATE EXTRACTED -->	09/29/95		09/29/95		09/29/95		09/29/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/07/95		10/07/95		10/08/95		10/07/95		10/06/95		10/06/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23626	NV	23593	NV	23593	NV
7429-90-5	Aluminum	2990.	N	2350.	N	174.	N	1620.	N	3630.		5090.	
7440-36-0	Antimony	1.3	B	5.4	B	14.3		0.77	B	2.9	B*	0.57	B*
7440-38-2	Arsenic	4.2		6.1		2.1		12.7		5.2		4.7	
7440-39-3	Barium	24.9		32.6		32.		33.4		30.7	N	10.3	BN
7440-41-7	Beryllium	0.32	B	0.57	B					0.69		0.52	B
7440-43-9	Cadmium	0.68		0.97						0.22	B	0.35	B
7440-70-2	Calcium	13900.	N*	4190.	N*	531.	BN*	1290.	N*	55800.		222000.	
7440-47-3	Chromium	13.3		28.8		4.9		13.1		46.8	N*	46.5	N*
7440-48-4	Cobalt	1.9	B	2.7	B					2.8	B	1.2	B
7440-50-8	Copper	60.3		540.		15.8		7.6		91.		10.4	
7439-89-6	Iron	4650.		8900.		2040.		12800.		8180.	*	7310.	*
7439-92-1	Lead	338.	*	283.	*	10500.	*	125.	*	462.	*	10.7	*
7439-95-4	Magnesium	402.	B	319.	B	38.3	B	62.3	B	1080.		5440.	
7439-96-5	Manganese	65.5	*	57.1	*	13.7	*	4.4	*	86.7	N	119.	N
7440-02-0	Nickel	8.7		127.		1.4	B	0.79	B	17.6		16.2	
7440-09-7	Potassium	590.	B	768.		232.	B	1320.		724.		1550.	
7782-49-2	Selenium			0.77								2.2	
7440-22-4	Silver			1.3		0.28	B						
7440-23-5	Sodium	115.	B	228.	B	60.6	B	80.3	B	211.	B	751.	
7440-28-0	Thallium												
7440-62-2	Vanadium	8.1		9.6		1.7	B	7.4		14.5		27.3	
7440-66-6	Zinc	451.		418.		21.2		8.3		342.	*	41.7	*
7440-31-5	Tin	7.7		61.6		7.9				22.9		2.7	B
7439-97-6	Mercury	0.18	N*	0.26	N*	0.23	N*	0.06	N*	0.15			
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	018-S-B001-01		018-S-B002-01		018-S-B002-02		018-S-B003-01		018-S-B003-02		018-S-B004-01	
	ORIGINAL ID ----->	018SB00101		018SB00201		018SB00202		018SB00301		018SB00302		018SB00401	
	LAB SAMPLE ID --->	23627.12		23627.06		23627.07		23720.01		23720.02		23627.11	
	ID FROM REPORT -->	018SB00101		018SB00201		018SB00202		018SB00301		018SB00302		018SB00401	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		10/03/95		10/03/95		09/25/95	
	DATE EXTRACTED -->	09/29/95		09/29/95		09/29/95		10/05/95		10/05/95		09/29/95	
	DATE ANALYZED --->	10/07/95		10/07/95		10/07/95		10/16/95		10/16/95		10/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23720	NV	23720	NV	23626	NV
7429-90-5	Aluminum	2430.	N	2910.	N	3400.	N	4800.		5730.		1760.	N
7440-36-0	Antimony	3.7	B			0.92	B	1.6	B	3.3	B	7.2	
7440-38-2	Arsenic	3.5		3.2		4.7		6.8		8.4		6.6	
7440-39-3	Barium	16.5	B	10.9	B	12.4	B	22.5	B	25.3	B	33.6	
7440-41-7	Beryllium	0.2	B			0.29	B	0.43	B	0.86		0.47	B
7440-43-9	Cadmium	0.15	B							0.25	B	0.3	B
7440-70-2	Calcium	1400.	N*	18300.	N*	9540.	N*	18500.	N*	21400.	N*	2630.	N*
7440-47-3	Chromium	25.2		4.9		22.4		16.3	N*	20.2	N*	55.6	
7440-48-4	Cobalt	1.9	B	0.4	B	1.9	B	32.3	N*	29.1	N*	5.1	B
7440-50-8	Copper	69.2		5.2		29.9		27.7	*	59.5	*	177.	
7439-89-6	Iron	6910.		2490.		6840.		7410.	*	8670.	*	10600.	
7439-92-1	Lead	404.	*	8.7	*	54.5	*	42.4	N	76.3	N	1960.	*
7439-95-4	Magnesium	338.	B	342.	B	534.	B	1190.		1260.		486.	B
7439-96-5	Manganese	45.3	*	25.8	*	41.7	*	97.1	N*	117.	N*	110.	*
7440-02-0	Nickel	10.3		1.7	B	9.7		6.3	N*	8.6	N*	16.7	
7440-09-7	Potassium	419.	B	481.	B	746.		513.	B	489.	B	429.	B
7782-49-2	Selenium					0.59							
7440-22-4	Silver												
7440-23-5	Sodium	81.7	B	82.2	B	311.	B	653.	B	882.		134.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	10.		5.5	B	11.7		14.		14.6		9.2	
7440-66-6	Zinc	160.		9.3		156.		128.	*	389.	*	672.	
7440-31-5	Tin	8.4				9.8				8.5		23.3	
7439-97-6	Mercury	0.7	N*			0.08	N*	0.11	N	0.23	N	0.59	N*
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	018-S-B005-01		018-C-B005-01		018-S-B005-02		018-C-B005-02		022-S-B001-01		022-S-B001-02	
	ORIGINAL ID ----->	018SB00501		018CB00501		018SB00502		018CB00502		022SB00101		022SB00102	
	LAB SAMPLE ID --->	23627.13		23626.01		23627.14		23626.02		23448.01		23448.02	
	ID FROM REPORT -->	018SB00501		018CB00501		018SB00502		018CB00502		022SB00101		022SB00102	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		09/25/95		09/07/95		09/07/95	
	DATE EXTRACTED -->	09/29/95		09/28/95		09/29/95		09/28/95		09/15/95		09/15/95	
	DATE ANALYZED --->	10/07/95		10/07/95		10/07/95		10/07/95		09/20/95		09/20/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23626	NV	23447	NV	23447	NV
7429-90-5	Aluminum	1010.	N	1730.		5170.	N	9790.		4250.		2710.	
7440-36-0	Antimony	26.		25.1		2.3	B	1.7	B				
7440-38-2	Arsenic	7.8		7.4		4.8		8.		3.3		1.3	
7440-39-3	Barium	57.2		63.3		32.9		34.4		12.6	B	11.4	B
7440-41-7	Beryllium	0.46	B	0.46	B	0.26	B	0.31	B	0.26	B	0.16	B
7440-43-9	Cadmium	0.47	B	0.52	B								
7440-70-2	Calcium	432.	BN*	619.		1430.	N*	922.		62200.		595.	B
7440-47-3	Chromium	53.		75.6		23.7		22.2		18.		16.8	
7440-48-4	Cobalt	10.		8.8		1.1	B	1.1	B	3.5	B		
7440-50-8	Copper	193.		191.		37.3		28.4		7.8			
7439-89-6	Iron	8150.		9550.		11100.		20200.		3500.		2560.	
7439-92-1	Lead	680.	*	724.		199.	*	96.2		15.6		2.3	
7439-95-4	Magnesium	161.	B	190.	B	353.	B	516.	B	1980.		157.	B
7439-96-5	Manganese	36.7	*	40.		34.6	*	33.1		41.1		20.8	
7440-02-0	Nickel	22.8		22.		3.2	B	2.8	B	8.3		1.3	B
7440-09-7	Potassium	199.	B	278.	B	499.	B	581.	B	324.	B		
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	162.	B	96.6	B	87.8	B	68.3	B	482.	B		
7440-28-0	Thallium												
7440-62-2	Vanadium	4.7	B	8.6		11.5		25.4		9.1		3.9	B
7440-66-6	Zinc	764.		803.	E	121.		61.9	E	25.8		2.9	
7440-31-5	Tin	30.8		21.7									
7439-97-6	Mercury	0.37	N*	0.43		0.45	N*	0.35					
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-META													
	SAMPLE ID ------->	022-S-B002-01		022-S-B002-02		023-S-B001-01		023-S-B001-02		023-C-B001-02		023-S-B002-01	
	ORIGINAL ID ----->	022SB00201		022SB00202		023SB00101		023SB00102		023CB00102		023SB00201	
	LAB SAMPLE ID --->	23448.03		23448.04		23802.19		23802.20		23801.01		023SB00201	
	ID FROM REPORT -->	022SB00201		022SB00202		023SB00101		023SB00102		023CB00102		023SB00201	
	SAMPLE DATE ----->	09/07/95		09/07/95		10/13/95		10/13/95		10/13/95		10/13/95	
	DATE EXTRACTED -->	09/15/95		09/15/95		10/18/95		10/18/95		10/18/95		10/18/95	
	DATE ANALYZED --->	09/20/95		09/20/95		10/24/95		10/24/95		10/24/95		10/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23801	NV	23801	NV	23801	NV	23801	NV
7429-90-5	Aluminum	4680.		4510.		2770.		956.		668.		1040.	
7440-36-0	Antimony												
7440-38-2	Arsenic	6.		6.1		0.66	B					1.2	B
7440-39-3	Barium	10.6	B	11.3	B	4.1	B	21.6	B	7.9	B	9.4	B
7440-41-7	Beryllium	0.38	B	0.33	B							0.19	B
7440-43-9	Cadmium											0.24	B
7440-70-2	Calcium	140000.		235000.		34300.		1110.		550.		109000.	
7440-47-3	Chromium	48.6		28.4		3.8		1.7		1.3		31.5	
7440-48-4	Cobalt	12.5		3.2	B	1.4	B	0.33	B	0.23	B	29.6	
7440-50-8	Copper	11.5		14.5		1.2	B	3.5		3.7		3.6	
7439-89-6	Iron	4400.		4770.		1170.		1110.		897.		2290.	
7439-92-1	Lead	5.6		15.4		1.1		43.2		22.1		6.4	
7439-95-4	Magnesium	4310.		3430.		473.	B	78.5	B	55.8	B	1870.	
7439-96-5	Manganese	65.		71.5		25.5		18.7		17.5		149.	
7440-02-0	Nickel	15.7		15.6		1.7	B	0.78	B	0.62	B	14.8	
7440-09-7	Potassium	602.	B	507.	B	438.	B	251.	B	304.	B	720.	
7782-49-2	Selenium	0.83		0.65									
7440-22-4	Silver											0.24	B
7440-23-5	Sodium	643.	B	465.	B	47.7	B			39.3	B	76.7	B
7440-28-0	Thallium												
7440-62-2	Vanadium	17.9		14.7		2.2	B	1.6	B	1.1	B	3.6	B
7440-66-6	Zinc	42.9		45.1		3.5		36.3		26.3		18.1	
7440-31-5	Tin												
7439-97-6	Mercury					0.02		0.04		0.02			
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	023-S-B002-02		023-S-B003-01		063-S-B001-01		063-S-B001-02		063-S-B002-01		063-S-B002-02	
	ORIGINAL ID ----->	023SB00202		023SB00301		063SB00101		063SB00102		063SB00201		063SB00202	
	LAB SAMPLE ID --->	23802.22		23386.01		23386.04		23386.05		23386.06		23386.07	
	ID FROM REPORT -->	023SB00202		023SB00301		063SB00101		063SB00102		063SB00201		063SB00202	
	SAMPLE DATE ----->	10/13/95		08/30/95		08/30/95		08/30/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/18/95		09/07/95		09/07/95		09/07/95		09/07/95		09/07/95	
	DATE ANALYZED --->	10/24/95		09/09/95		09/09/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23801	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
7429-90-5	Aluminum	1120.		2820.	N	821.		4030.		3670.		2310.	N
7440-36-0	Antimony			1.6	BN			1.	BN				
7440-38-2	Arsenic	1.2		5.7				5.8		2.5		5.9	
7440-39-3	Barium	6.7	B	15.2	B	0.96	B	30.1		11.	B	16.8	B
7440-41-7	Beryllium	0.11	B	0.16	B			0.26	B	0.13	B	0.15	B
7440-43-9	Cadmium											0.35	B
7440-70-2	Calcium	35200.		21900.	N	1660.	N	10700.	N	7350.	N	11400.	N
7440-47-3	Chromium	2.7		6.6		2.6		8.7		5.3		5.1	
7440-48-4	Cobalt	0.7	B	1.6	B			0.71	B	0.47	B	1.2	B
7440-50-8	Copper	4.3		16.9		0.25	B	13.7		8.5		9.9	
7439-89-6	Iron	1840.		5330.		1160.		8600.		3660.		5390.	
7439-92-1	Lead	10.6		29.3		2.7		109.		29.8		47.1	
7439-95-4	Magnesium	445.	B	345.	B	26.4	B	299.	B	188.	B	320.	B
7439-96-5	Manganese	45.8		32.9		5.9		39.8		16.		47.2	
7440-02-0	Nickel	1.9	B	6.2	E	0.29	BE	2.3	BE	1.8	BE	1.8	BE
7440-09-7	Potassium	454.	B	519.	B	273.	B	420.	B	453.	B	503.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	42.1	B	53.	B	68.1	B	42.6	B	52.2	B	62.8	B
7440-28-0	Thallium												
7440-62-2	Vanadium	2.5	B	7.3		3.2	B	13.1		5.8		7.9	
7440-66-6	Zinc	16.		23.		0.69	B	72.3		20.		39.	
7440-31-5	Tin	3.2	B	9.4	B			2.5	B			2.3	B
7439-97-6	Mercury							0.24		1.7			
57-12-5	Cyanide	??????????											
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	063-S-B003-01		063-S-B003-02		065-S-B003-01		065-S-B003-02		065-S-B004-01		065-S-B005-01	
	ORIGINAL ID ----->	063SB00301		063SB00302		065SB00301		065SB00302		065SB00401		065SB00501	
	LAB SAMPLE ID --->	23386.08		23386.09		23664.13		23664.16		23664.17		23664.18	
	ID FROM REPORT -->	063SB00301		063SB00302		065SB00301		065SB00302		065SB00401		065SB00501	
	SAMPLE DATE ----->	08/30/95		08/30/95		09/27/95		09/27/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/07/95		09/07/95		10/04/95		10/04/95		10/04/95		10/04/95	
	DATE ANALYZED --->	09/09/95		09/09/95		10/10/95		10/10/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23663	NV	23663	NV	23663	NV	23663	NV
7429-90-5	Aluminum	2050.		4030.		2750.	*	3580.	*	6490.	*	2010.	*
7440-36-0	Antimony			0.7	BN	2.9	BN	1.8	BN	0.79	BN		
7440-38-2	Arsenic	1.	B	7.6		0.79	B	2.4		4.1		1.	B
7440-39-3	Barium	6.6	B	22.2	B	22.8	B	14.	B	14.	B	8.3	B
7440-41-7	Beryllium			0.2	B			0.14	B	0.4	B		
7440-43-9	Cadmium					0.2	B	0.88		0.53	B	1.5	
7440-70-2	Calcium	9700.	N	7550.	N	3040.		2470.		94800.		2510.	
7440-47-3	Chromium	3.5		7.8		23.7	N	18.	N	36.5	N	10.3	N
7440-48-4	Cobalt	0.65	B	1.6	B	4.	B	1.2	B	15.9		11.	
7440-50-8	Copper	2.5	B	18.4		60.9	N	71.2	N	25.1	N	102.	N
7439-89-6	Iron	2970.		12900.		1450.		2810.		5400.		2700.	
7439-92-1	Lead	4.3		60.1		165.		196.		56.2		74.6	
7439-95-4	Magnesium	494.	B	362.	B	188.	BN	259.	BN	2570.	N	136.	BN
7439-96-5	Manganese	59.8		64.7		8.9		18.5		49.1		15.9	
7440-02-0	Nickel	1.6	BE	4.4	BE	3.1	B	7.5		13.1		49.4	
7440-09-7	Potassium	594.		491.	B	461.	BE	560.	BE	1150.	E	277.	BE
7782-49-2	Selenium									1.4			
7440-22-4	Silver											0.38	B
7440-23-5	Sodium	68.7	B	65.5	B	441.	B	507.	B	383.	B		
7440-28-0	Thallium												
7440-62-2	Vanadium	5.	B	12.5		2.2	B	4.9	B	18.8		4.	B
7440-66-6	Zinc	8.1		63.6		83.7		297.		109.		144.	
7440-31-5	Tin			2.6	B	34.6		22.7					
7439-97-6	Mercury			0.13		0.22		0.25		0.06		0.03	
57-12-5	Cyanide					??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	065-C-B005-01		065-S-B005-02		065-C-B005-02		065-S-B006-01		065-S-B006-02		067-S-B001-01	
	ORIGINAL ID ----->	065CB00501		065SB00502		065CB00502		065SB00601		065SB00602		067SB00101	
	LAB SAMPLE ID --->	23663.01		23664.19		23663.02		23681.07		23681.10		23438.01	
	ID FROM REPORT -->	065CB00501		065SB00502		065CB00502		065SB00601		065SB00602		067SB00101	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/27/95		09/28/95		09/28/95		09/06/95	
	DATE EXTRACTED -->	10/04/95		10/04/95		10/04/95		10/05/95		10/05/95		09/11/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/11/95		10/11/95		09/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV	23424	NV
7429-90-5	Aluminum	1780.		6770.	*	4700.		1230.	*	1360.	*	??????????	
7440-36-0	Antimony											??????????	
7440-38-2	Arsenic	0.94	B	5.2		5.		2.		2.3		??????????	
7440-39-3	Barium	7.1	B	16.5	B	16.6	B	7.4	B	6.6	B	??????????	
7440-41-7	Beryllium			0.33	B	0.33	B	0.15	B			??????????	
7440-43-9	Cadmium	1.4										??????????	
7440-70-2	Calcium	1420.		3430.		3690.		2830.		554.	B	??????????	
7440-47-3	Chromium	8.2		12.9	N	10.8		4.9	N	4.6	N	??????????	
7440-48-4	Cobalt	6.4		6.3	B	5.6	B	0.6	B	0.41	B	??????????	
7440-50-8	Copper	72.5		21.7	N	23.7		9.1	N	6.4	N	??????????	
7439-89-6	Iron	2000.		7820.		7100.		2150.		1540.		??????????	
7439-92-1	Lead	43.6		45.1		39.		21.1		10.8		??????????	
7439-95-4	Magnesium	99.5	B	691.	N	614.	B	211.	BN	152.	BN	??????????	
7439-96-5	Manganese	11.9		64.1		55.2		19.3		10.7		??????????	
7440-02-0	Nickel	48.7		10.5		9.		1.9	B			??????????	
7440-09-7	Potassium	214.	B	843.	E	638.	B	455.	BE	442.	BE	??????????	
7782-49-2	Selenium											??????????	
7440-22-4	Silver											??????????	
7440-23-5	Sodium			77.8	B	68.4	B	89.4	B			??????????	
7440-28-0	Thallium											??????????	
7440-62-2	Vanadium	3.2	B	15.7		15.4		3.7	B	4.	B	??????????	
7440-66-6	Zinc	111.		63.1		72.2		69.2		9.6		??????????	
7440-31-5	Tin	3.5	B			3.7	B					??????????	
7439-97-6	Mercury	0.05		0.12		0.12		0.06					
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	067-S-B001-02		067-S-B002-01		067-S-B002-02		067-C-B002-02		067-S-B003-01		067-S-B003-02	
	ORIGINAL ID ----->	067SB00102		067SB00201		067SB00202		067CB00202		067SB00301		067SB00302	
	LAB SAMPLE ID --->	23438.02		23802.23		23802.24		23801.02		23438.03		23438.04	
	ID FROM REPORT -->	067SB00102		067SB00201		067SB00202		067CB00202		067SB00301		067SB00302	
	SAMPLE DATE ----->	09/06/95		10/13/95		10/13/95		10/13/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	09/11/95		10/23/95		10/23/95		10/23/95		09/11/95		09/11/95	
	DATE ANALYZED --->	09/11/95		10/23/95		10/23/95		10/23/95		09/11/95		09/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23424	NV	23801	NV	23801	NV	23801	NV	23424	NV	23424	NV
7429-90-5	Aluminum	??????????		??????????		??????????		??????????		??????????		??????????	
7440-36-0	Antimony	??????????		??????????		??????????		??????????		??????????		??????????	
7440-38-2	Arsenic	??????????		??????????		??????????		??????????		??????????		??????????	
7440-39-3	Barium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-41-7	Beryllium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-43-9	Cadmium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-70-2	Calcium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-47-3	Chromium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-48-4	Cobalt	??????????		??????????		??????????		??????????		??????????		??????????	
7440-50-8	Copper	??????????		??????????		??????????		??????????		??????????		??????????	
7439-89-6	Iron	??????????		??????????		??????????		??????????		??????????		??????????	
7439-92-1	Lead	??????????		??????????		??????????		??????????		??????????		??????????	
7439-95-4	Magnesium	??????????		??????????		??????????		??????????		??????????		??????????	
7439-96-5	Manganese	??????????		??????????		??????????		??????????		??????????		??????????	
7440-02-0	Nickel	??????????		??????????		??????????		??????????		??????????		??????????	
7440-09-7	Potassium	??????????		??????????		??????????		??????????		??????????		??????????	
7782-49-2	Selenium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-22-4	Silver	??????????		??????????		??????????		??????????		??????????		??????????	
7440-23-5	Sodium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-28-0	Thallium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-62-2	Vanadium	??????????		??????????		??????????		??????????		??????????		??????????	
7440-66-6	Zinc	??????????		??????????		??????????		??????????		??????????		??????????	
7440-31-5	Tin	??????????		??????????		??????????		??????????		??????????		??????????	
7439-97-6	Mercury			0.07		0.02		0.03					
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																	
		SAMPLE ID ------->	067-S-B004-01		067-S-B004-02		067-S-B005-01		067-C-B005-01		067-S-B005-02		067-S-B006-01	
		ORIGINAL ID ----->	067SB00401		067SB00402		067SB00501		067CB00501		067SB00502		067SB00601	
		LAB SAMPLE ID --->	23438.05		23438.06		23438.07		23437.01		23438.08		23473.15	
		ID FROM REPORT -->	067SB00401		067SB00402		067SB00501		067CB00501		067SB00502		067SB00601	
		SAMPLE DATE ----->	09/06/95		09/06/95		09/06/95		09/05/95		09/06/95		09/10/95	
		DATE EXTRACTED -->	09/11/95		09/11/95		09/11/95		09/08/95		09/11/95		09/21/95	
		DATE ANALYZED --->	09/11/95		09/11/95		09/11/95		09/08/95		09/11/95		09/21/95	
		MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
		UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter		23424	NV	23424	NV	23424	NV	23424	NV	23424	NV	23473	NV
7429-90-5	Aluminum		??????????		??????????		??????????		??????????		??????????		??????????	
7440-36-0	Antimony		??????????		??????????		??????????		??????????		??????????		??????????	
7440-38-2	Arsenic		??????????		??????????		??????????		??????????		??????????		??????????	
7440-39-3	Barium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-41-7	Beryllium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-43-9	Cadmium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-70-2	Calcium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-47-3	Chromium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-48-4	Cobalt		??????????		??????????		??????????		??????????		??????????		??????????	
7440-50-8	Copper		??????????		??????????		??????????		??????????		??????????		??????????	
7439-89-6	Iron		??????????		??????????		??????????		??????????		??????????		??????????	
7439-92-1	Lead		??????????		??????????		??????????		??????????		??????????		??????????	
7439-95-4	Magnesium		??????????		??????????		??????????		??????????		??????????		??????????	
7439-96-5	Manganese		??????????		??????????		??????????		??????????		??????????		??????????	
7440-02-0	Nickel		??????????		??????????		??????????		??????????		??????????		??????????	
7440-09-7	Potassium		??????????		??????????		??????????		??????????		??????????		??????????	
7782-49-2	Selenium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-22-4	Silver		??????????		??????????		??????????		??????????		??????????		??????????	
7440-23-5	Sodium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-28-0	Thallium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-62-2	Vanadium		??????????		??????????		??????????		??????????		??????????		??????????	
7440-66-6	Zinc		??????????		??????????		??????????		??????????		??????????		??????????	
7440-31-5	Tin		??????????		??????????		??????????		??????????		??????????		??????????	
7439-97-6	Mercury						0.21		0.15				0.04	*
57-12-5	Cyanide		??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide		??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-META																	
	SAMPLE ID ------->	067-S-B006-02		067-S-B007-01		067-S-B007-02		070-S-B001-01		070-C-B001-01		070-S-B001-02	
	ORIGINAL ID ----->	067SB00602		067SB00701		067SB00702		070SB00101		070CB00101		070SB00102	
	LAB SAMPLE ID --->	23473.16		23438.09		23438.10		23397.01		23396.01		23397.02	
	ID FROM REPORT -->	067SB00602		067SB00701		067SB00702		070SB00101		070CB00101		070SB00102	
	SAMPLE DATE ----->	09/10/95		09/06/95		09/06/95		08/31/95		08/31/95		08/31/95	
	DATE EXTRACTED -->	09/21/95		09/11/95		09/11/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/21/95		09/11/95		09/11/95		09/14/95		09/14/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23473	NV	23424	NV	23424	NV	23386	NV	23386	NV	23386	NV
7429-90-5	Aluminum	??????????		??????????		??????????		10700.	*	8590.		3380.	*
7440-36-0	Antimony	??????????		??????????		??????????							
7440-38-2	Arsenic	??????????		??????????		??????????		3.5		3.1		3.2	
7440-39-3	Barium	??????????		??????????		??????????		43.5		46.5		12.7	B
7440-41-7	Beryllium	??????????		??????????		??????????		0.39	B	0.37	B		
7440-43-9	Cadmium	??????????		??????????		??????????		0.16	B	0.31	B		
7440-70-2	Calcium	??????????		??????????		??????????		1060.	N*	980.		316.	BN*
7440-47-3	Chromium	??????????		??????????		??????????		8.4		6.1		4.7	
7440-48-4	Cobalt	??????????		??????????		??????????		1.2	B	0.96	B		
7440-50-8	Copper	??????????		??????????		??????????		21.8		18.5			
7439-89-6	Iron	??????????		??????????		??????????		6510.		5090.		2920.	
7439-92-1	Lead	??????????		??????????		??????????		27.3		24.8		2.6	
7439-95-4	Magnesium	??????????		??????????		??????????		510.	B	361.	B	158.	B
7439-96-5	Manganese	??????????		??????????		??????????		102.		68.2		8.8	
7440-02-0	Nickel	??????????		??????????		??????????		4.3	B	3.2	B	1.1	B
7440-09-7	Potassium	??????????		??????????		??????????		271.	B	196.	B		
7782-49-2	Selenium	??????????		??????????		??????????							
7440-22-4	Silver	??????????		??????????		??????????							
7440-23-5	Sodium	??????????		??????????		??????????		66.1	B	49.9	B	47.2	B
7440-28-0	Thallium	??????????		??????????		??????????							
7440-62-2	Vanadium	??????????		??????????		??????????		10.9		9.5		6.7	
7440-66-6	Zinc	??????????		??????????		??????????		79.4		93.5		2.9	
7440-31-5	Tin	??????????		??????????		??????????							
7439-97-6	Mercury	0.08	*										
57-12-5	Cyanide	??????????		??????????		??????????							
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	070-S-B002-01		070-S-B002-02		070-S-B003-01		070-S-B003-02		070-S-B004-01		070-S-B004-02	
	ORIGINAL ID ----->	070SB00201		070SB00202		070SB00301		070SB00302		070SB00401		070SB00402	
	LAB SAMPLE ID --->	23397.03		23397.06		23397.07		23397.08		23397.09		23397.10	
	ID FROM REPORT -->	070SB00201		070SB00202		070SB00301		070SB00302		070SB00401		070SB00402	
	SAMPLE DATE ----->	08/31/95		08/31/95		08/31/95		08/31/95		08/31/95		08/31/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/14/95		09/14/95		09/14/95		09/14/95		09/14/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
7429-90-5	Aluminum	6230.	*	6090.	*	4790.	*	2040.	*	5490.	*	4320.	*
7440-36-0	Antimony												
7440-38-2	Arsenic	3.6		4.3		2.5		1.3		2.8		2.5	
7440-39-3	Barium	20.7	B	13.6	B	17.3	B	6.7	B	21.4		18.3	B
7440-41-7	Beryllium									0.14	B	0.12	B
7440-43-9	Cadmium												
7440-70-2	Calcium	618.	N*	163.	BN*	786.	N*	250.	BN*	583.	N*	668.	N*
7440-47-3	Chromium	9.3		10.1		7.		3.4		7.3		4.9	
7440-48-4	Cobalt	0.52	B	0.28	B	5.8		0.45	B	1.6	B	2.3	B
7440-50-8	Copper	25.7		4.3		13.4				1.7	B	2.7	B
7439-89-6	Iron	5510.		6470.		3380.		1850.		3920.		3700.	
7439-92-1	Lead	13.4		5.2		9.		1.9		13.5		77.2	
7439-95-4	Magnesium	269.	B	243.	B	264.	B	104.	B	290.	B	211.	B
7439-96-5	Manganese	15.9		10.		18.9		7.5		26.5		31.7	
7440-02-0	Nickel	2.	B	1.1	B	2.3	B	0.66	B	2.	B	1.8	B
7440-09-7	Potassium			179.	B					203.	B		
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	46.9	B	48.	B	51.2	B	34.1	B	75.	B	59.2	B
7440-28-0	Thallium												
7440-62-2	Vanadium	12.3		15.9		5.7		3.4	B	8.2		6.9	
7440-66-6	Zinc	22.1		6.6		12.5		1.6	B	6.4		4.3	
7440-31-5	Tin	2.3	B										
7439-97-6	Mercury												
57-12-5	Cyanide												
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	087-S-B001-01		087-C-B001-01		087-S-B001-02		097-S-B001-01		097-S-B001-02		097-S-B002-01	
	ORIGINAL ID ----->	087SB00101		087CB00101		087SB00102		097SB00101		097SB00102		097SB00201	
	LAB SAMPLE ID --->	23459.24		23458.02		23459.25		23549.05		23549.06		23549.09	
	ID FROM REPORT -->	087SB00101		087CB00101		087SB00102		097SB00101		097SB00102		097SB00201	
	SAMPLE DATE ----->	09/08/95		09/08/95		09/08/95		09/18/95		09/18/95		09/18/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/21/95		09/21/95		09/21/95		09/21/95	
	DATE ANALYZED --->	09/22/95		09/22/95		09/22/95		10/03/95		10/03/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23535	NV	23535	NV	23535	NV
7429-90-5	Aluminum	5620.		6770.		11900.		2010.		3570.		2890.	
7440-36-0	Antimony	5.1	BN	2.7	B								
7440-38-2	Arsenic	66.5		7.7		6.6		4.7		4.4		0.87	B
7440-39-3	Barium	47.3		36.7		22.3	B	17.7	B	13.1	B	3.2	B
7440-41-7	Beryllium	0.54	B	0.45	B	0.32	B	0.33	B	0.31	B		
7440-43-9	Cadmium	0.64		0.54	B			0.26	B				
7440-70-2	Calcium	13300.		12500.		4220.		113000.		26000.		19100.	
7440-47-3	Chromium	104.		75.3		21.8		14.7	N	40.1	N	3.8	N
7440-48-4	Cobalt	3.3	B	3.5	B	1.8	B	2.1	B	1.5	B	0.9	B
7440-50-8	Copper	142.		76.9		2.2	B	5.6	N	5.1	N	1.9	BN
7439-89-6	Iron	8490.		8900.		17500.		3000.		4230.		1050.	
7439-92-1	Lead	132.		68.2		17.4		41.2	N	20.6	N	1.5	N
7439-95-4	Magnesium	1830.		1450.		939.		1660.		1350.		396.	B
7439-96-5	Manganese	56.6		46.2		29.7		179.	N	71.4	N	24.8	N
7440-02-0	Nickel	11.7		12.8		4.1	B	5.5		4.9	B	1.9	B
7440-09-7	Potassium	496.	B	526.	B	539.	B	692.		836.		511.	B
7782-49-2	Selenium												
7440-22-4	Silver	2.2		0.84	B								
7440-23-5	Sodium	288.	B	273.	B	247.	B	684.		511.	B	199.	B
7440-28-0	Thallium	0.85	B										
7440-62-2	Vanadium	14.9		17.1		33.3		4.8	BN	8.4	N	2.2	BN
7440-66-6	Zinc	295.		202.		14.6		28.6	N	23.6	N	4.5	N
7440-31-5	Tin	10.1		8.1	B	4.7	B						
7439-97-6	Mercury	0.37		0.53		0.04							
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	097-S-B002-02		097-S-B003-01		097-C-B003-01		097-S-B003-02		100-S-B001-01		100-S-B001-02	
	ORIGINAL ID ----->	097SB00202		097SB00301		097CB00301		097SB00302		100SB00101		100SB00102	
	LAB SAMPLE ID --->	23549.10		23549.16		23548.01		23549.13		23664.01		23664.04	
	ID FROM REPORT -->	097SB00202		097SB00301		097CB00301		097SB00302		100SB00101		100SB00102	
	SAMPLE DATE ----->	09/18/95		09/18/95		09/18/95		09/18/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/20/95		09/21/95		10/04/95		10/04/95	
	DATE ANALYZED --->	10/03/95		10/03/95		10/02/95		10/03/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23535	NV	23535	NV	23535	NV	23535	NV	23663	NV	23663	NV
7429-90-5	Aluminum	2670.		3540.		2550.		6630.		4580.	*	24800.	*
7440-36-0	Antimony											1.	BN
7440-38-2	Arsenic	1.4		4.9		3.7		3.6		1.5		23.6	
7440-39-3	Barium	11.7	B	15.9	B	18.	B	31.1		7.1	B	40.3	B
7440-41-7	Beryllium	0.13	B	0.34	B	0.33	B	0.35	B			1.6	
7440-43-9	Cadmium	0.18	B										
7440-70-2	Calcium	30500.		27400.		12500.		21600.		1180.		10300.	
7440-47-3	Chromium	20.4	N	54.9	N	11.7		10.2	N	4.7	N	48.3	N
7440-48-4	Cobalt	1.3	B	1.9	B	1.2	B	1.4	B	0.24	B	8.3	B
7440-50-8	Copper	51.9	N	8.2	N	6.1		4.7	N	0.77	BN	47.1	N
7439-89-6	Iron	2420.		5550.		6380.		5520.		3910.		39000.	
7439-92-1	Lead	16.8	N	36.9	N	16.7		12.5	N	3.5		64.	
7439-95-4	Magnesium	743.		2430.		1420.		891.		124.	BN	3980.	N
7439-96-5	Manganese	82.	N	75.6	N	79.5		77.6	N	6.8		272.	
7440-02-0	Nickel	9.1		4.6	B	3.	B	3.6	B	1.4	B	19.4	
7440-09-7	Potassium	814.		889.		934.		1320.		254.	BE	3590.	E
7782-49-2	Selenium											2.4	
7440-22-4	Silver												
7440-23-5	Sodium	270.	B	438.	B	339.	B	319.	B			722.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	31.2	N	9.6	N	7.7		11.5	N	6.8		79.8	
7440-66-6	Zinc	46.2	N	31.9	N	18.		18.9	N	4.5		191.	
7440-31-5	Tin	2.6	B										
7439-97-6	Mercury											0.47	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	100-S-B002-01		100-S-B002-02		100-S-B003-01		100-S-B003-02		106-S-B001-01		106-S-B001-02	
	ORIGINAL ID ----->	100SB00201		100SB00202		100SB00301		100SB00302		106SB00101		106SB00102	
	LAB SAMPLE ID --->	23664.05		23664.08		23664.09		23664.12		23720.03		23720.04	
	ID FROM REPORT -->	100SB00201		100SB00202		100SB00301		100SB00302		106SB00101		106SB00102	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/27/95		09/27/95		10/03/95		10/03/95	
	DATE EXTRACTED -->	10/04/95		10/04/95		10/04/95		10/04/95		10/05/95		10/05/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/10/95		10/16/95		10/16/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23720	NV	23720	NV
7429-90-5	Aluminum	4580.	*	19000.	*	6780.	*	16800.	*	9370.		12400.	
7440-36-0	Antimony			0.83	BN			0.76	BN	0.64	B		
7440-38-2	Arsenic	1.6		18.3		2.3		10.8		26.8		27.5	
7440-39-3	Barium	9.5	B	50.7		21.	B	24.7	B	28.5		25.5	B
7440-41-7	Beryllium			1.2		0.3	B	0.9		0.93		1.1	
7440-43-9	Cadmium							0.41	B				
7440-70-2	Calcium	2010.		30600.		27400.		108000.		7070.	N*	17000.	N*
7440-47-3	Chromium	4.8	N	38.6	N	13.4	N	53.8	N	23.	N*	28.7	N*
7440-48-4	Cobalt	2.6	B	7.4	B	3.1	B	3.2	B	6.5	BN*	6.4	BN*
7440-50-8	Copper	2.	BN	34.3	N	5.3	N	22.6	N	28.4	*	24.7	*
7439-89-6	Iron	3570.		30900.		4900.		13500.		19500.	*	27200.	*
7439-92-1	Lead	4.4		44.7		16.7		33.2		42.9	N	51.1	N
7439-95-4	Magnesium	145.	BN	4020.	N	759.	N	8070.	N	3320.		4940.	
7439-96-5	Manganese	9.2		348.		44.7		218.		200.	N*	579.	N*
7440-02-0	Nickel	2.6	B	15.5		5.5		19.		8.9	N*	10.	N*
7440-09-7	Potassium	319.	BE	2650.	E	617.	E	2110.	E	1760.		2140.	
7782-49-2	Selenium			1.6		0.77		2.6					
7440-22-4	Silver												
7440-23-5	Sodium			374.	B	300.	B	756.	B	2340.		4880.	
7440-28-0	Thallium												
7440-62-2	Vanadium	6.4		61.1		12.6		42.7		44.5		58.9	
7440-66-6	Zinc	9.3		126.		21.5		81.2		111.	*	100.	*
7440-31-5	Tin												
7439-97-6	Mercury			0.28		0.06		0.07		0.35	N	0.32	N
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	106-S-B002-01		106-S-B002-02		106-S-B003-01		106-S-B003-02		172-S-B001-01		172-S-B001-02	
	ORIGINAL ID ----->	106SB00201		106SB00202		106SB00301		106SB00302		172SB00101		172SB00102	
	LAB SAMPLE ID --->	23594.07		23594.08		23594.01		23594.04		23459.19		23459.20	
	ID FROM REPORT -->	106SB00201		106SB00202		106SB00301		106SB00302		172SB00101		172SB00102	
	SAMPLE DATE ----->	09/21/95		09/21/95		09/21/95		09/21/95		09/08/95		09/08/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/25/95		09/25/95		09/21/95		09/21/95	
	DATE ANALYZED --->	10/06/95		10/06/95		10/06/95		10/06/95		09/22/95		09/22/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23593	NV	23593	NV	23447	NV	23447	NV
7429-90-5	Aluminum	7210.		33700.		5650.		34700.		15800.		5260.	
7440-36-0	Antimony	0.51	B	1.2	B	0.52	B	1.5	B				
7440-38-2	Arsenic	5.6		24.1		4.7		47.2		16.5		2.2	
7440-39-3	Barium	411.		40.9		17.	B	43.2	B	34.7		14.8	B
7440-41-7	Beryllium	0.26	B	1.4		0.22	B	1.5		1.1		0.43	B
7440-43-9	Cadmium	1.9											
7440-70-2	Calcium	11400.	N*	11400.	N*	20800.	N*	12500.	N*	5650.		3310.	
7440-47-3	Chromium	11.	N	50.8	N	8.6	N	53.1	N	25.9		5.8	
7440-48-4	Cobalt	1.2	B	8.4	B	1.1	B	8.9	B	7.5		2.	B
7440-50-8	Copper	21.1	*	31.	*	6.5	*	31.6	*	36.6		2.9	B
7439-89-6	Iron	7690.		37900.		7020.		44200.		20400.		4880.	
7439-92-1	Lead	84.3	N	52.	N	10.4	N	55.7	N	77.		25.5	
7439-95-4	Magnesium	1300.		6040.		857.		6270.		2210.		310.	B
7439-96-5	Manganese	85.2		843.		51.7		1040.		329.		32.1	
7440-02-0	Nickel	6.3		17.4		4.	B	18.1		10.5		3.1	B
7440-09-7	Potassium	1000.		4660.		861.		4510.		1850.		282.	B
7782-49-2	Selenium			0.97									
7440-22-4	Silver												
7440-23-5	Sodium	1950.		5360.		1350.		6070.		394.	B	254.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	15.5		81.2		13.		88.5		51.1		8.6	
7440-66-6	Zinc	478.		121.		25.9		124.		157.		11.6	
7440-31-5	Tin	6.1		5.5	B	2.4	B	6.6	B	6.5	B	4.3	B
7439-97-6	Mercury			0.06				0.05		0.42		0.08	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	172-S-B002-01		172-S-B002-02		172-S-B003-01		172-C-B003-01		172-S-B003-02		172-S-B004-01	
	ORIGINAL ID ----->	172SB00201		172SB00202		172SB00301		172CB00301		172SB00302		172SB00401	
	LAB SAMPLE ID --->	23474.01		23474.02		23459.22		23458.01		23459.23		23459.15	
	ID FROM REPORT -->	172SB00201		172SB00202		172SB00301		172CB00301		172SB00302		172SB00401	
	SAMPLE DATE ----->	09/09/95		09/09/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/21/95		09/21/95		09/21/95		09/21/95	
	DATE ANALYZED --->	09/26/95		09/26/95		09/22/95		09/22/95		09/22/95		09/22/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23474	NV	23474	NV	23447	NV	23447	NV	23447	NV	23447	NV
7429-90-5	Aluminum	6730.		2090.		4340.		7340.		8350.		13000.	
7440-36-0	Antimony	0.75	B										
7440-38-2	Arsenic	12.5		5.2		8.2		6.1		5.		6.1	
7440-39-3	Barium	25.3		11.	B	22.3	B	23.6	B	19.5	B	32.5	
7440-41-7	Beryllium	0.49	B	0.34	B	0.41	B	0.86		0.61	B	0.87	
7440-43-9	Cadmium												
7440-70-2	Calcium	13500.		26300.		17000.		16900.		7870.		7780.	
7440-47-3	Chromium	28.2		8.3		143.		59.8		16.5		23.9	
7440-48-4	Cobalt	3.5	B	1.4	B	13.		9.9		3.	B	24.3	
7440-50-8	Copper	25.3		3.	B	14.7		10.6		8.4		29.4	
7439-89-6	Iron	11600.		5540.		6260.		11700.		10600.		16300.	
7439-92-1	Lead	62.4		5.1		36.2		17.3		6.2		70.8	
7439-95-4	Magnesium	1580.		688.		4460.		3850.		1240.		1990.	
7439-96-5	Manganese	405.		59.1		85.6		194.		53.8		147.	
7440-02-0	Nickel	6.9		2.3	B	6.		9.7		6.6		8.1	
7440-09-7	Potassium	1250.	E	822.	E	643.		1550.		797.		1200.	
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	236.	B	246.	B	309.	B	372.	B	329.	B	565.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	23.3		8.4		9.8		16.3		21.4		40.3	
7440-66-6	Zinc	96.1		11.1		46.1		44.8		26.5		132.	
7440-31-5	Tin	3.1	B			2.8	B			3.7	B	5.5	B
7439-97-6	Mercury	0.38		0.03		0.09						0.62	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																		
	SAMPLE ID ------->	172-S-B004-02		172-S-B005-01		172-S-B005-02		172-S-B006-01		172-S-B006-02		173-S-B001-01	
	ORIGINAL ID ----->	172SB00402		172SB00501		172SB00502		172SB00601		172SB00602		173SB00101	
	LAB SAMPLE ID --->	23459.18		23459.13		23459.14		23459.09		23459.10		23798.01	
	ID FROM REPORT -->	172SB00402		172SB00501		172SB00502		172SB00601		172SB00602		173SB00101	
	SAMPLE DATE ----->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		10/12/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/21/95		09/21/95		09/21/95		10/16/95	
	DATE ANALYZED --->	09/22/95		09/22/95		09/22/95		09/22/95		09/22/95		10/25/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23447	NV	23447	NV	23720	NV
7429-90-5	Aluminum	8080.		4650.		8110.		25700.		4330.		1670.	
7440-36-0	Antimony												
7440-38-2	Arsenic	7.5		4.8		5.3		22.6		1.6		0.67	B
7440-39-3	Barium	22.2	B	11.5	B	18.	B	49.7		12.1	B	21.9	
7440-41-7	Beryllium	0.78		0.33	B	0.41	B	1.6		0.31	B	0.17	B
7440-43-9	Cadmium												
7440-70-2	Calcium	18800.		10500.		1900.		7880.		1280.		462.	BN*
7440-47-3	Chromium	20.6		10.7		6.4		41.3		5.		1.5	N*
7440-48-4	Cobalt	3.6	B	12.1		2.3	B	20.		1.4	B	23.1	N*
7440-50-8	Copper	6.9		3.3		1.4	B	44.2		2.	B	40.9	*
7439-89-6	Iron	11700.		5940.		5100.		34700.		3220.		1570.	*
7439-92-1	Lead	12.1		6.9		16.5		92.2		8.8		3.	N
7439-95-4	Magnesium	2100.		1070.		307.	B	3660.		254.	B	107.	B
7439-96-5	Manganese	97.8		46.2		28.9		495.		28.1		90.	N*
7440-02-0	Nickel	7.3		4.	B	5.4		14.1		2.2	B	2.6	BN*
7440-09-7	Potassium	1400.		578.	B	183.	B	1930.					
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	456.	B	353.	B	263.	B	1750.		321.	B		
7440-28-0	Thallium												
7440-62-2	Vanadium	22.8		10.1		10.6		78.5		8.		1.7	B
7440-66-6	Zinc	29.8		13.7		7.7		204.		8.		25.5	*
7440-31-5	Tin	3.2	B	3.	B	2.9	B	7.4	B	2.6	B		
7439-97-6	Mercury	0.04				0.06		0.27					
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	173-S-B001-02		173-S-B002-01		173-S-B002-02		173-M-0001-01		173-M-0002-01		173-M-0003-01	
	ORIGINAL ID ----->	173SB00102		173SB00201		173SB00202		173M000101		173M000201		173M000301	
	LAB SAMPLE ID --->	23798.04		23798.05		23798.06		23798.07		23798.08		23798.09	
	ID FROM REPORT -->	173SB00102		173SB00201		173SB00202		173M000101		173M000201		173M000301	
	SAMPLE DATE ----->	10/12/95		10/12/95		10/12/95		10/12/95		10/12/95		10/12/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		10/16/95		10/16/95		10/16/95		10/16/95	
	DATE ANALYZED --->	10/25/95		10/25/95		10/25/95		10/25/95		10/25/95		10/25/95	
	MATRIX ---------->	Soil		Soil		Soil		Sediment		Sediment		Sediment	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23720	NV	23720	NV	23720	NV	23720	NV
7429-90-5	Aluminum	6800.		5600.		6570.		2110.		1320.		1650.	
7440-36-0	Antimony							14.9		1.3	B	2.4	B
7440-38-2	Arsenic	6.2		5.8		5.6		15.9		5.8		7.5	
7440-39-3	Barium	38.9		25.5		37.8		64.1		78.1		105.	
7440-41-7	Beryllium	0.16	B	0.19	B	0.37	B	0.14	B	0.22	B	0.54	B
7440-43-9	Cadmium							3.5		1.9		1.3	
7440-70-2	Calcium	3080.	N*	1540.	N*	1210.	N*	7400.	N*	1830.	N*	43800.	N*
7440-47-3	Chromium	13.9	N*	10.8	N*	10.4	N*	70.1	N*	42.5	N*	64.8	N*
7440-48-4	Cobalt	9.9	N*	10.7	N*	2.5	BN*	8.3	N*	3.8	BN*	7.3	N*
7440-50-8	Copper	60.6	*	1.1	B*	0.83	B*	5420.	*	1670.	*	2160.	*
7439-89-6	Iron	12900.	*	12600.	*	11000.	*	69700.	*	21500.	*	23000.	*
7439-92-1	Lead	6.1	N	3.4	N	4.1	N	4270.	N	811.	N	721.	N
7439-95-4	Magnesium	743.		517.	B	608.	B	342.	B	601.		1100.	
7439-96-5	Manganese	28.	N*	48.9	N*	113.	N*	435.	N*	224.	N*	266.	N*
7440-02-0	Nickel	2.1	BN*	1.6	BN*	2.1	BN*	861.	N*	119.	N*	343.	N*
7440-09-7	Potassium	429.	B									208.	B
7782-49-2	Selenium	0.66						1.2		0.65			
7440-22-4	Silver							1.1	B				
7440-23-5	Sodium			63.1	B			95.3	B			137.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	25.3		20.2		15.6		17.4		10.2		8.6	
7440-66-6	Zinc	42.4	*	5.7	*	5.9	*	580.	*	697.	*	4560.	*
7440-31-5	Tin							251.		73.3		77.5	
7439-97-6	Mercury	0.12	N	0.03	N	0.03	N	0.37	N	0.06	N	0.03	N
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	528-S-B002-01		528-S-B002-02		538-S-B004-01		538-S-B004-02		538-S-B005-01		538-S-B005-02	
	ORIGINAL ID ----->	528SB00201		528SB00202		538SB00401		538SB00402		538SB00501		538SB00502	
	LAB SAMPLE ID --->	23798.16		23798.17		23359.01		23359.02		23359.03		23359.04	
	ID FROM REPORT -->	528SB00201		528SB00202		538SB00401		538SB00402		538SB00501		538SB00502	
	SAMPLE DATE ----->	10/12/95		10/12/95		08/28/95		08/28/95		08/28/95		08/28/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		09/06/95		09/06/95		09/06/95		09/06/95	
	DATE ANALYZED --->	10/25/95		10/25/95		09/10/95		09/10/95		09/10/95		09/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23359	NV	23359	NV	23359	NV	23359	NV
7429-90-5	Aluminum	4310.		4300.		3750.		4100.		4630.		3150.	
7440-36-0	Antimony												
7440-38-2	Arsenic	2.8		1.4		2.		1.8		1.4		0.7	B
7440-39-3	Barium	23.3		26.		13.2	B	13.5	B	17.7	B	8.7	B
7440-41-7	Beryllium	0.37	B	0.33	B	0.16	B	0.22	B	0.14	B	0.18	B
7440-43-9	Cadmium	0.42	B	0.34	B								
7440-70-2	Calcium	55300.	N*	9790.	N*	3050.		622.		1360.		255.	B
7440-47-3	Chromium	9.4	N*	5.8	N*	5.1		4.6		4.7		1.8	
7440-48-4	Cobalt	3.2	BN*	0.96	BN*	3.9	B	0.52	B	1.8	B		
7440-50-8	Copper	161.	*	121.	*	3.9		10.8		25.8			
7439-89-6	Iron	3620.	*	2790.	*	4360.		5060.		2840.		1580.	
7439-92-1	Lead	52.	N	33.7	N	8.8		15.8		14.7		2.8	
7439-95-4	Magnesium	741.		253.	B	195.	B	149.	B	174.	B	88.1	B
7439-96-5	Manganese	132.	N*	176.	N*	17.4		24.7		18.2		15.4	
7440-02-0	Nickel	11.2	N*	3.9	BN*	1.5	B	1.3	B	4.6			
7440-09-7	Potassium					456.	B	112.	B	394.	B	63.2	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	62.1	B			111.	B	66.5	B	114.	B	28.3	B
7440-28-0	Thallium												
7440-62-2	Vanadium	5.2	B	3.6	B	7.		5.7		3.6	B	1.8	B
7440-66-6	Zinc	99.	*	81.7	*	7.5		10.2		42.3		2.5	
7440-31-5	Tin	14.1		13.1									
7439-97-6	Mercury	0.13	N	0.68	N								
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	538-S-B006-01		538-S-B006-02		538-S-B007-01		538-S-B007-02		538-S-B008-01		538-S-B008-02	
	ORIGINAL ID ----->	538SB00601		538SB00602		538SB00701		538SB00702		538SB00801		538SB00802	
	LAB SAMPLE ID --->	23359.05		23359.06		23359.07		23359.08		23359.09		23359.10	
	ID FROM REPORT -->	538SB00601		538SB00602		538SB00701		538SB00702		538SB00801		538SB00802	
	SAMPLE DATE ----->	08/28/95		08/28/95		08/28/95		08/28/95		08/28/95		08/28/95	
	DATE EXTRACTED -->	09/06/95		09/06/95		09/06/95		09/06/95		09/06/95		09/06/95	
	DATE ANALYZED --->	09/10/95		09/10/95		09/10/95		09/10/95		09/10/95		09/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23359	NV	23359	NV	23359	NV	23359	NV	23359	NV	23359	NV
7429-90-5	Aluminum	2940.		3650.		4880.		1850.		4450.		3990.	
7440-36-0	Antimony												
7440-38-2	Arsenic	0.99	B	1.2		5.3		0.81	B	1.2		1.1	
7440-39-3	Barium	5.4	B	6.	B	27.5		7.5	B	17.5	B	14.	B
7440-41-7	Beryllium					0.15	B			0.11	B	0.19	B
7440-43-9	Cadmium					3.7						0.96	
7440-70-2	Calcium	4460.		1110.		1290.		153.	B	882.		702.	
7440-47-3	Chromium	3.8		4.4		12.1		2.3		4.7		3.	
7440-48-4	Cobalt	0.22	B	0.49	B	4.4	B			0.46	B		
7440-50-8	Copper	1.8	B	1.5	B	103.		1.1	B	15.3		3.5	
7439-89-6	Iron	1690.		2020.		14900.		2190.		1930.		2240.	
7439-92-1	Lead	2.3		2.4		116.		1.4		10.		11.3	
7439-95-4	Magnesium	145.	B	143.	B	292.	B	86.9	B	134.	B	133.	B
7439-96-5	Manganese	11.8		5.5		104.		10.4		18.1		21.5	
7440-02-0	Nickel	2.1	B	1.7	B	65.6				10.2		2.4	B
7440-09-7	Potassium	223.	B	105.	B	653.		28.9	B	265.	B	165.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	59.6	B	62.4	B			34.9	B	141.	B	25.9	B
7440-28-0	Thallium												
7440-62-2	Vanadium	3.7	B	4.8	B	17.8		2.4	B	1.8	B	2.5	B
7440-66-6	Zinc	9.8		5.3		1100.		7.8		19.6		172.	
7440-31-5	Tin					5.9	B						
7439-97-6	Mercury												
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	538-C-B008-02		538-S-B009-01		538-S-B010-01		538-S-B010-02		539-S-B001-01		539-S-B001-02	
	ORIGINAL ID ----->	538CB00802		538SB00901		538SB01001		538SB01002		539SB00101		539SB00102	
	LAB SAMPLE ID --->	23360.01		23359.11		23359.12		23359.13		23802.17		23802.18	
	ID FROM REPORT -->	538CB00802		538SB00901		538SB01001		538SB01002		539SB00101		539SB00102	
	SAMPLE DATE ----->	08/28/95		08/28/95		08/28/95		08/28/95		10/13/95		10/13/95	
	DATE EXTRACTED -->	09/06/95		09/06/95		09/06/95		09/06/95		10/18/95		10/18/95	
	DATE ANALYZED --->	09/09/95		09/10/95		09/10/95		09/10/95		10/24/95		10/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23359	NV	23359	NV	23359	NV	23359	NV	23801	NV	23801	NV
7429-90-5	Aluminum	3450.		7400.		4430.		2670.		2930.		2690.	
7440-36-0	Antimony			0.63	B								
7440-38-2	Arsenic	0.98	B	5.3		2.5		2.3		0.55	B	0.95	B
7440-39-3	Barium	11.2	B	22.2	B	14.	B	8.8	B	8.3	B	11.8	B
7440-41-7	Beryllium	0.17	B	0.2	B	0.15	B	0.13	B				
7440-43-9	Cadmium	1.8											
7440-70-2	Calcium	1140.		2560.		4030.		427.	B	384.	B	519.	B
7440-47-3	Chromium	2.8		19.9		6.4		5.4		45.4		4.5	
7440-48-4	Cobalt	0.32	B	4.7	B	1.9	B			0.56	B	0.4	B
7440-50-8	Copper	3.8		1.6	B	4.				1.5	B	1.3	B
7439-89-6	Iron	2150.		17000.		5430.		6650.		1080.		2260.	
7439-92-1	Lead	5.5		7.5		10.1		5.		2.		2.4	
7439-95-4	Magnesium	145.	B	495.	B	312.	B	110.	B	1170.		170.	B
7439-96-5	Manganese	22.7		36.		21.3		12.4		5.3		22.9	
7440-02-0	Nickel	2.2	B	4.9		3.9	B			1.3	B	1.	B
7440-09-7	Potassium	219.	B	933.		524.	B	54.2	B	194.	B	239.	B
7782-49-2	Selenium	0.53											
7440-22-4	Silver	0.21											
7440-23-5	Sodium	10.6		165.	B	218.	B	56.2	B	29.6	B	35.1	B
7440-28-0	Thallium	0.53											
7440-62-2	Vanadium	2.3	B	29.2		7.6		10.6		4.1	B	3.6	B
7440-66-6	Zinc	457.		25.1		12.		2.7		1.7	B	2.7	
7440-31-5	Tin	2.1											
7439-97-6	Mercury												
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	539-S-B002-01		539-S-B002-02		539-S-B003-01		539-S-B003-02		539-M-0001-01		540-S-B001-01	
	ORIGINAL ID ----->	539SB00201		539SB00202		539SB00301		539SB00302		539M000101		540SB00101	
	LAB SAMPLE ID --->	23370.01		23370.02		23370.03		23370.04		23448.08		23386.11	
	ID FROM REPORT -->	539SB00201		539SB00202		539SB00301		539SB00302		539M000101		540SB00101	
	SAMPLE DATE ----->	08/29/95		08/29/95		08/29/95		08/29/95		09/07/95		08/30/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/15/95		09/07/95	
	DATE ANALYZED --->	09/09/95		09/09/95		09/09/95		09/09/95		09/20/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Sediment		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23359	NV	23359	NV	23359	NV	23359	NV	23447	NV	23386	NV
7429-90-5	Aluminum	3260.		2640.		3000.		3030.		15900.		4230.	
7440-36-0	Antimony									15.3	N	2.6	BN
7440-38-2	Arsenic	1.5		1.9		1.2		1.7		6.6		7.7	
7440-39-3	Barium	10.5	B	7.9	B	9.6	B	17.6	B	99.8		26.4	
7440-41-7	Beryllium	0.12	B					0.13	B	0.12	B	0.29	B
7440-43-9	Cadmium					0.22	B	0.27	B	10.7		0.15	B
7440-70-2	Calcium	3000.	N	746.	N	1100.	N	1940.	N	42200.		8520.	N
7440-47-3	Chromium	3.4		3.4		3.5		4.		107.		9.3	
7440-48-4	Cobalt	0.52	B	0.27	B	0.74	B	1.2	B	21.1		5.5	
7440-50-8	Copper	108.		2.4	B	18.6		51.9		134000.		36.7	
7439-89-6	Iron	2770.		2650.		1720.		2180.		25100.		10800.	
7439-92-1	Lead	13.8		6.4		19.7		53.7		364.		97.3	
7439-95-4	Magnesium	181.	B	135.	B	141.	B	194.	B	1170.		353.	B
7439-96-5	Manganese	19.8		8.3		9.1		14.7		3150.		59.3	
7440-02-0	Nickel	5.2				2.1	B	3.2	B	6480.		3.2	BE
7440-09-7	Potassium	251.	B	214.	B	356.	B	394.	B	433.	B	523.	B
7782-49-2	Selenium												
7440-22-4	Silver									26.5			
7440-23-5	Sodium	74.5	B	70.7	B	76.7	B	86.7	B	3370.		48.3	B
7440-28-0	Thallium												
7440-62-2	Vanadium	4.1	B	5.1	B	3.	B	3.5	B	15.9		13.1	
7440-66-6	Zinc	33.		2.8		61.7		107.		17100.		129.	
7440-31-5	Tin							3.	B	336.		3.1	B
7439-97-6	Mercury					0.18		0.38				0.66	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????			
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	540-S-B001-02		540-C-B001-02		541-S-B001-01		542-S-B001-01		542-S-B001-02		542-S-B002-01	
	ORIGINAL ID ----->	540SB00102		540CB00102		541SB00101		542SB00101		542SB00102		542SB00201	
	LAB SAMPLE ID --->	23386.14		23387.03		23386.15		23370.05		23370.06		23370.07	
	ID FROM REPORT -->	540SB00102		540CB00102		541SB00101		542SB00101		542SB00102		542SB00201	
	SAMPLE DATE ----->	08/30/95		08/30/95		08/30/95		08/29/95		08/29/95		08/29/95	
	DATE EXTRACTED -->	09/07/95		09/08/95		09/07/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/09/95		09/14/95		09/09/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23359	NV	23359	NV	23359	NV
7429-90-5	Aluminum	2970.		7330.		3130.		4070.		4150.		2280.	
7440-36-0	Antimony	3.7	BN	4.8	B	29.5	N						
7440-38-2	Arsenic	7.4		6.7		3.9		1.5		1.6		1.	B
7440-39-3	Barium	21.9	B	33.		33.2		25.4		24.9		18.6	B
7440-41-7	Beryllium	0.33	B	0.31	B	0.24	B	0.26	B	0.2	B	0.17	B
7440-43-9	Cadmium					0.25	B						
7440-70-2	Calcium	8300.	N	6660.		12900.	N	3800.	N	1200.	N	13600.	N
7440-47-3	Chromium	8.5		15.3		8.		3.		3.7		2.6	
7440-48-4	Cobalt	0.93	B	1.6	B	0.92	B	0.73	B	0.74	B	0.68	B
7440-50-8	Copper	46.9		40.2		747.		1.1	B	1.6	B	6.4	
7439-89-6	Iron	15300.		10500.		4150.		3660.		3840.		2110.	
7439-92-1	Lead	111.		293.		75.4		2.1		2.4		8.8	
7439-95-4	Magnesium	275.	B	516.	B	344.	B	223.	B	235.	B	254.	B
7439-96-5	Manganese	49.1		52.3		47.6		48.3		19.9		20.	
7440-02-0	Nickel	2.6	BE	5.3		4.7	E	1.5	B	1.3	B	1.7	B
7440-09-7	Potassium	418.	B	250.	B	550.		457.	B	262.	B	478.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	33.3	B	40.8	B	53.	B	59.5	B	53.4	B	47.6	B
7440-28-0	Thallium												
7440-62-2	Vanadium	11.8		11.9		4.6	B	4.8	B	6.3		3.2	B
7440-66-6	Zinc	121.		239.		141.		4.8		4.1		19.	
7440-31-5	Tin			5.6		54.3	B						
7439-97-6	Mercury	0.64		0.72		0.16							
57-12-5	Cyanide	0.49	B					??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	542-S-B002-02		542-S-B003-01		542-S-B003-02		542-S-B004-01		542-S-B005-01		542-S-B005-02	
	ORIGINAL ID ----->	542SB00202		542SB00301		542SB00302		542SB00401		542SB00501		542SB00502	
	LAB SAMPLE ID --->	23370.08		23386.16		23386.17		23386.20		23370.09		23370.10	
	ID FROM REPORT -->	542SB00202		542SB00301		542SB00302		542SB00401		542SB00501		542SB00502	
	SAMPLE DATE ----->	08/29/95		08/30/95		08/30/95		08/30/95		08/29/95		08/29/95	
	DATE EXTRACTED -->	09/08/95		09/07/95		09/07/95		09/07/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/09/95		09/09/95		09/09/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23359	NV	23386	NV	23386	NV	23386	NV	23359	NV	23359	NV
7429-90-5	Aluminum	3640.		5560.		4770.		4670.		4480.		5220.	
7440-36-0	Antimony							3.8	BN				
7440-38-2	Arsenic			7.9		2.7		3.5		5.		2.3	
7440-39-3	Barium	8.3	B	42.1		17.8	B	33.2		39.5		25.3	
7440-41-7	Beryllium	0.22	B	0.44	B	0.32	B	0.28	B	0.28	B	0.35	B
7440-43-9	Cadmium			0.2	B			0.43	B	18.		5.8	
7440-70-2	Calcium	928.	N	12300.	N	3360.	N	9710.	N	17300.	N	3950.	N
7440-47-3	Chromium	2.		4.1		3.5		13.7		10.9		4.5	
7440-48-4	Cobalt			1.3	B	0.54	B	1.2	B	1.6	B	0.59	B
7440-50-8	Copper	1.1	B	57.7		3.8		82.4		82.8		40.	
7439-89-6	Iron	1630.		4510.	N	3770.		5170.		10500.		4430.	
7439-92-1	Lead	2.9		94.6		25.5		84.2		138.		73.4	
7439-95-4	Magnesium	98.5	B	388.	B	173.	B	345.	B	629.		216.	B
7439-96-5	Manganese	23.		101.		37.9		54.4		89.1		39.7	
7440-02-0	Nickel			4.7	E	2.	BE	3.5	BE	6.2		1.9	B
7440-09-7	Potassium	251.	B	537.	B	396.	B	495.	B	724.		554.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	50.6	B	57.1	B	61.	B	35.1	B				
7440-28-0	Thallium												
7440-62-2	Vanadium	1.7	B	5.	B	5.1	B	7.6		9.1		6.	
7440-66-6	Zinc	2.3		78.3		12.5		198.		4080.		1550.	
7440-31-5	Tin			2.6	B			6.5	B	12.		5.6	B
7439-97-6	Mercury							0.98		0.13			
57-12-5	Cyanide	??????????								??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	542-S-B006-01		542-S-B006-02		542-C-B006-02		542-S-B007-01		543-S-B001-01		543-S-B001-02	
	ORIGINAL ID ----->	542SB00601		542SB00602		542CB00602		542SB00701		543SB00101		543SB00102	
	LAB SAMPLE ID --->	23370.11		23370.15		23369.01		23386.21		23785.05		23785.06	
	ID FROM REPORT -->	542SB00601		542SB00602		542CB00602		542SB00701		543SB00101		543SB00102	
	SAMPLE DATE ----->	08/29/95		08/29/95		08/30/95		08/30/95		10/11/95		10/11/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/06/95		09/07/95		10/16/95		10/16/95	
	DATE ANALYZED --->	09/09/95		09/09/95		09/09/95		09/09/95		10/25/95		10/25/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23359	NV	23359	NV	23359	NV	23386	NV	23720	NV	23720	NV
7429-90-5	Aluminum	2990.		3910.		3740.		3880.		2120.		2080.	
7440-36-0	Antimony							27.4	N				
7440-38-2	Arsenic	1.5		0.89	B	0.84	B	4.6		2.9		0.83	B
7440-39-3	Barium	24.7		10.6	B	7.6	B	54.8		16.5	B	9.1	B
7440-41-7	Beryllium	0.17	B	0.26	B	0.26	B	0.3	B	0.31	B	0.2	B
7440-43-9	Cadmium							0.44	B	0.42	B		
7440-70-2	Calcium	4650.	N	761.	N	761.		9880.	N	145000.	N*	4410.	N*
7440-47-3	Chromium	3.1		2.1		2.		22.9		6.	N*	2.	N*
7440-48-4	Cobalt	2.6	B	0.26	B			0.91	B	2.1	BN*	0.91	BN*
7440-50-8	Copper	8.4				1.5	B	81.1		45.	*	1.8	B*
7439-89-6	Iron	2880.		1950.		1830.		5360.		3120.	*	1650.	*
7439-92-1	Lead	10.2		7.9		6.9		126.		41.6	N	2.7	N
7439-95-4	Magnesium	180.	B	109.	B	96.7	B	381.	B	1500.		122.	B
7439-96-5	Manganese	34.3		28.4		22.7		39.2		152.	N*	65.4	N*
7440-02-0	Nickel	4.3						4.1	BE	11.8	N*	1.2	BN*
7440-09-7	Potassium	407.	B	245.	B	134.	B	545.	B	176.	B		
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	45.1	B	51.5	B	46.6	B	51.6	B	90.6	B		
7440-28-0	Thallium												
7440-62-2	Vanadium	3.7	B	2.3	B	2.	B	6.9		4.	B	2.6	B
7440-66-6	Zinc	36.4		3.3		3.		227.		72.4	*	3.6	*
7440-31-5	Tin							5.3	B	5.9			
7439-97-6	Mercury									0.03	N	0.03	N
57-12-5	Cyanide	??????????		??????????		??????????				??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	543-C-B002-02		543-S-B003-01		543-S-B003-02		543-C-B003-02		543-S-B004-01		543-S-B004-02	
	ORIGINAL ID ----->	543CB00202		543SB00301		543SB00302		543CB00302		543SB00401		543SB00402	
	LAB SAMPLE ID --->	23797.02		23785.01		23785.04		23789.01		23386.22		23386.23	
	ID FROM REPORT -->	543CB00202		543SB00301		543SB00302		543CB00302		543SB00401		543SB00402	
	SAMPLE DATE ----->	10/12/95		10/11/95		10/11/95		10/11/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		10/16/95		10/16/95		09/07/95		09/07/95	
	DATE ANALYZED --->	10/25/95		10/25/95		10/25/95		10/25/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23720	NV	23720	NV	23386	NV	23386	NV
7429-90-5	Aluminum	2790.		3510.		3500.		3770.		3260.		3170.	
7440-36-0	Antimony									2.6	BN	1.1	BN
7440-38-2	Arsenic			5.		2.5		0.9	B	4.9		4.5	
7440-39-3	Barium	16.7	B	39.4		15.1	B	16.	B	23.9		23.7	
7440-41-7	Beryllium	0.25	B	0.3	B	0.21	B	0.2	B	0.2	B	0.26	B
7440-43-9	Cadmium			1.7		0.34	B	0.21	B				
7440-70-2	Calcium	1620.		3320.	N*	911.	N*	1490.		2290.	N	2420.	N
7440-47-3	Chromium	1.8		7.6	N*	3.3	N*	3.1		7.4		6.4	
7440-48-4	Cobalt	0.5	B	50.7	N*	3.4	BN*	3.8	B	2.7	B	1.2	B
7440-50-8	Copper	6.2		1760.	*	171.	*	118.		16.7		29.1	
7439-89-6	Iron	1440.		9500.	*	4770.	*	1960.		7950.		7930.	
7439-92-1	Lead	5.4		148.	N	32.2	N	21.3		63.4		64.	
7439-95-4	Magnesium	107.	B	233.	B	134.	B	146.	B	233.	B	232.	B
7439-96-5	Manganese	120.		137.	N*	57.4	N*	48.1		41.6		47.2	
7440-02-0	Nickel	1.2	B	193.	N*	15.9	N*	7.3		1.8	BE	2.1	BE
7440-09-7	Potassium									409.	B	407.	B
7782-49-2	Selenium												
7440-22-4	Silver			1.2									
7440-23-5	Sodium									59.2	B	50.1	B
7440-28-0	Thallium												
7440-62-2	Vanadium	1.5	B	16.1		3.3	B	2.5	B	10.7		8.5	
7440-66-6	Zinc	6.5		1240.	*	185.	*	122.		43.7		81.	
7440-31-5	Tin			26.		5.8		4.6	B	6.6	B	3.5	B
7439-97-6	Mercury			0.06	N	0.03	N	0.04		0.22		1.6	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		0.5	B		
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	543-C-B004-02		544-S-B001-01		544-S-B001-02		544-S-B002-01		544-S-B002-02		544-S-B003-01	
	ORIGINAL ID ----->	543CB00402		544SB00101		544SB00102		544SB00201		544SB00202		544SB00301	
	LAB SAMPLE ID --->	23387.04		23681.15		23681.16		23681.11		23681.14		23705.01	
	ID FROM REPORT -->	543CB00402		544SB00101		544SB00102		544SB00201		544SB00202		544SB00301	
	SAMPLE DATE ----->	08/30/95		09/28/95		09/28/95		09/28/95		09/28/95		09/29/95	
	DATE EXTRACTED -->	09/08/95		10/05/95		10/05/95		10/05/95		10/05/95		10/05/95	
	DATE ANALYZED --->	09/14/95		10/11/95		10/11/95		10/11/95		10/11/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23663	NV	23663	NV	23663	NV	23663	NV	23704	NV
7429-90-5	Aluminum	5080.		2500.	*	1880.	*	2700.	*	2290.	*	2150.	
7440-36-0	Antimony			0.61	BN								
7440-38-2	Arsenic	3.1		2.2		2.5		1.3		0.87	B	0.7	B
7440-39-3	Barium	30.8		8.5	B	10.4	B	5.4	B	6.9	B	5.4	B
7440-41-7	Beryllium	0.25	B	0.13	B	0.19	B						
7440-43-9	Cadmium	0.24	B	0.24	B	0.13	B	0.14	B				
7440-70-2	Calcium	2770.		12200.		5060.		381.	B	803.		467.	B
7440-47-3	Chromium	8.5		10.7	N	11.7	N	5.	N	4.7	N	3.8	
7440-48-4	Cobalt	1.2	B	1.3	B	3.9	B	24.7		1.2	B	34.5	
7440-50-8	Copper	26.6		35.1	N	26.	N	6.8	N	7.	N	10.4	
7439-89-6	Iron	5510.		2690.		3550.		3770.		1850.		1740.	
7439-92-1	Lead	68.8		32.6		36.7		6.6		11.3		8.3	
7439-95-4	Magnesium	371.	B	412.	BN	399.	BN	82.	BN	115.	BN	80.4	B
7439-96-5	Manganese	51.6		24.1		47.		19.1		16.6		10.	
7440-02-0	Nickel	3.4	B	3.3	B	4.1	B	3.8	B	1.4	B	5.8	
7440-09-7	Potassium	189.	B	508.	BE	548.	BE	261.	BE	332.	BE	179.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	50.3	B	99.1	B	116.	B	71.5	B	69.8	B	37.4	B
7440-28-0	Thallium												
7440-62-2	Vanadium	8.4		5.4	B	5.8	B	4.5	B	3.7	B	3.5	B
7440-66-6	Zinc	94.8		39.5		51.4		6.4		13.		13.6	
7440-31-5	Tin	4.3	B									2.6	B
7439-97-6	Mercury	1.2		0.03		0.1		0.03				0.03	
57-12-5	Cyanide			??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	544-S-B003-02		544-S-B004-01		544-S-B004-02		546-S-B003-01		546-S-B003-02		546-S-B005-01	
	ORIGINAL ID ----->	544SB00302		544SB00401		544SB00402		546SB00301		546SB00302		546SB00501	
	LAB SAMPLE ID --->	23705.04		23664.14		23664.15		23844.03		23844.04		23844.05	
	ID FROM REPORT -->	544SB00302		544SB00401		544SB00402		546SB00301		546SB00302		546SB00501	
	SAMPLE DATE ----->	09/29/95		09/27/95		09/27/95		10/20/95		10/20/95		10/20/95	
	DATE EXTRACTED -->	10/05/95		10/04/95		10/04/95		10/26/95		10/26/95		10/26/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		11/02/95		11/02/95		11/02/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23704	NV	23663	NV	23663	NV	23814	NV	23814	NV	23814	NV
7429-90-5	Aluminum	4630.		4220.	*	2320.	*	5700.		19300.		4830.	
7440-36-0	Antimony			1.5	BN	1.2	BN	2.	BN			0.6	BN
7440-38-2	Arsenic	6.4		1.1	B	2.3		5.7		19.6		6.9	
7440-39-3	Barium	31.1		25.1	B	17.5	B	46.4		33.8	B	26.8	
7440-41-7	Beryllium	0.27	B			0.17	B	0.37	B	1.2		0.29	B
7440-43-9	Cadmium	0.17	B			2.2		1.1		0.74	B	0.32	B
7440-70-2	Calcium	1660.		5980.		2640.		20300.	E	56700.	E	11300.	E
7440-47-3	Chromium	10.		36.1	N	11.7	N	93.1		51.3		10.6	
7440-48-4	Cobalt	3.9	B	505.		1.2	B	1.5	B	6.	B	2.4	B
7440-50-8	Copper	221.		21.9	N	111.	N	58.		51.2		22.1	
7439-89-6	Iron	6460.		3430.		3700.		6280.		27300.		6590.	
7439-92-1	Lead	112.		17.9		272.		119.		65.4		48.9	
7439-95-4	Magnesium	534.	B	152.	BN	176.	BN	1430.		5720.		597.	
7439-96-5	Manganese	38.1		17.1		28.9		84.	N	451.	N	49.7	N
7440-02-0	Nickel	6.5		19.2		16.		8.3	E	18.	E	4.9	E
7440-09-7	Potassium	680.		399.	BE	469.	BE	853.	E	3780.	E	758.	E
7782-49-2	Selenium							0.59		2.6		0.59	
7440-22-4	Silver												
7440-23-5	Sodium	137.	B	242.	B	545.	B	177.	B	527.	B	69.2	B
7440-28-0	Thallium									2.1		0.66	B
7440-62-2	Vanadium	14.9		3.2	B	6.4		11.8		69.5		13.	
7440-66-6	Zinc	225.		24.3		363.		228.		206.		109.	
7440-31-5	Tin	4.8	B	10.4		16.5		42.3		8.4	B	4.5	B
7439-97-6	Mercury	8.2		0.06		0.36		0.21		0.33		0.06	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																			
	SAMPLE ID ------->	546-S-B005-02		548-S-B001-01		548-S-B001-02		548-S-B002-01		548-S-B002-02		548-S-B003-01	
	ORIGINAL ID ----->	546SB00502		548SB00101		548SB00102		548SB00201		548SB00202		548SB00301	
	LAB SAMPLE ID --->	23844.06		23408.01		23408.04		23424.01		23424.02		23424.03	
	ID FROM REPORT -->	546SB00502		548SB00101		548SB00102		548SB00201		548SB00202		548SB00301	
	SAMPLE DATE ----->	10/20/95		09/01/95		09/01/95		09/05/95		09/05/95		09/05/95	
	DATE EXTRACTED -->	10/26/95		09/08/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	11/02/95		09/13/95		09/13/95		09/13/95		09/13/95		09/13/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23814	NV	23386	NV	23386	NV	23424	NV	23424	NV	23424	NV
7429-90-5	Aluminum	12400.		4110.	*	3910.	*	4280.		4850.		5630.	
7440-36-0	Antimony												
7440-38-2	Arsenic	9.9		1.8		4.3		1.7		1.2		2.2	
7440-39-3	Barium	27.3	B	19.6	B	13.2	B	25.1		21.6		17.4	B
7440-41-7	Beryllium	0.89		0.16	B	0.15	B	0.13	B	0.2	B		
7440-43-9	Cadmium	0.22	B										
7440-70-2	Calcium	51100.	E	482.	BN*	428.	BN*	507.	B	317.	B	777.	
7440-47-3	Chromium	31.7		3.8		7.4		4.1		3.8		6.2	
7440-48-4	Cobalt	2.9	B	4.5	B	1.7	B	1.8	B	0.97	B	13.4	
7440-50-8	Copper	10.7		1.1	B			1.2	B	1.1	B	0.96	B
7439-89-6	Iron	11700.		3810.		4860.		3750.		2930.		4370.	
7439-92-1	Lead	11.6		6.8		4.7		7.9		7.		5.7	
7439-95-4	Magnesium	5790.		215.	B	238.	B	271.	B	239.	B	344.	B
7439-96-5	Manganese	123.	N	44.3		12.3		37.2		55.2		22.8	
7440-02-0	Nickel	9.8	E	3.	B	2.	B	1.8	B	1.8	B	2.9	B
7440-09-7	Potassium	2140.	E	238.	B	503.	B	339.	B	335.	B	543.	
7782-49-2	Selenium	1.9											
7440-22-4	Silver												
7440-23-5	Sodium	357.	B	91.6	B	59.2	B	81.4	B	57.2	B	80.9	B
7440-28-0	Thallium	0.87	B										
7440-62-2	Vanadium	32.2		5.9		9.2		5.7		4.8	B	8.1	
7440-66-6	Zinc	40.		4.8		4.3		4.2		5.		5.8	
7440-31-5	Tin	4.5	B										
7439-97-6	Mercury	0.05											
57-12-5	Cyanide	??????????						??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	548-S-B003-02		548-S-B004-01		548-S-B004-02		549-S-B001-01		549-S-B001-02		549-S-B002-01	
	ORIGINAL ID ----->	548SB00302		548SB00401		548SB00402		549SB00101		549SB00102		549SB00201	
	LAB SAMPLE ID --->	23424.06		23424.07		23424.08		23408.06		23408.07		23397.12	
	ID FROM REPORT -->	548SB00302		548SB00401		548SB00402		549SB00101		549SB00102		549SB00201	
	SAMPLE DATE ----->	09/05/95		09/05/95		09/05/95		09/01/95		09/01/95		08/31/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/13/95		09/13/95		09/13/95		09/13/95		09/13/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23424	NV	23424	NV	23424	NV	23386	NV	23386	NV	23386	NV
7429-90-5	Aluminum	3030.		4330.		2930.		3540.	*	4940.	*	4670.	*
7440-36-0	Antimony							1.6	BN				
7440-38-2	Arsenic	1.7		2.		1.7		4.2		2.1		4.2	
7440-39-3	Barium	11.9	B	15.1	B	6.	B	41.6		33.		37.6	
7440-41-7	Beryllium							0.2	B	0.17	B	0.2	B
7440-43-9	Cadmium							0.5	B	0.17	B	0.24	B
7440-70-2	Calcium	189.	B	345.	B	138.	B	12700.	N*	822.	N*	20300.	N*
7440-47-3	Chromium	3.8		4.8		3.8		31.4		6.6		9.2	
7440-48-4	Cobalt	0.31	B	10.5		2.	B	39.3		1.2	B	6.3	
7440-50-8	Copper	0.41	B	0.76	B	0.32	B	1900.		70.6		42.6	
7439-89-6	Iron	2290.		3580.		2500.		8700.		4930.		8350.	
7439-92-1	Lead	4.2		4.9		2.6		516.		18.5		98.7	
7439-95-4	Magnesium	160.	B	187.	B	102.	B	345.	B	271.	B	662.	
7439-96-5	Manganese	5.9		15.4		5.4		70.6		27.2		66.5	
7440-02-0	Nickel	0.73	B	2.	B	0.83	B	112.		3.5	B	12.	
7440-09-7	Potassium	293.	B	329.	B	260.	B	712.		481.	B	332.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	70.4	B	58.4	B	51.6	B			44.7	B	58.6	B
7440-28-0	Thallium												
7440-62-2	Vanadium	5.8		6.8		7.		11.2		8.		8.7	
7440-66-6	Zinc	2.	B	3.7		1.6	B	253.		68.5		134.	
7440-31-5	Tin							149.		2.9	B	3.5	B
7439-97-6	Mercury							0.35				0.57	
57-12-5	Cyanide	??????????		??????????		??????????							
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																			
	SAMPLE ID ------->	549-S-B002-02		549-S-B003-01		549-S-B003-02		549-S-B004-01		549-S-B004-02		549-S-B005-01	
	ORIGINAL ID ----->	549SB00202		549SB00301		549SB00302		549SB00401		549SB00402		549SB00501	
	LAB SAMPLE ID --->	23397.13		23397.14		23397.15		23424.10		23424.11		23424.09	
	ID FROM REPORT -->	549SB00202		549SB00301		549SB00302		549SB00401		549SB00402		549SB00501	
	SAMPLE DATE ----->	08/31/95		08/31/95		08/31/95		09/05/95		09/05/95		09/05/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/14/95		09/14/95		09/14/95		09/13/95		09/13/95		09/13/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23424	NV	23424	NV	23424	NV
7429-90-5	Aluminum	1970.	*	5520.	*	1370.	*	1430.		3070.		3800.	
7440-36-0	Antimony												
7440-38-2	Arsenic	0.8	B	3.9		0.56	B	1.7		2.1		12.6	
7440-39-3	Barium	8.2	B	26.9		9.6	B	8.1	B	15.2	B	23.4	B
7440-41-7	Beryllium			0.22	B							0.14	B
7440-43-9	Cadmium			0.12	B	0.15	B						
7440-70-2	Calcium	350.	BN*	3460.	N*	277.	BN*	274.	B	459.	B	6390.	
7440-47-3	Chromium	3.2		8.2		2.2		2.9		3.6		6.5	
7440-48-4	Cobalt	0.33	B	1.1	B			1.5	B	0.71	B	196.	
7440-50-8	Copper	2.1	B	84.6				7.2		9.7		47.8	
7439-89-6	Iron	1350.		6330.		1000.		2450.		4700.		8300.	
7439-92-1	Lead	10.7		76.3		2.3		31.2		31.4		53.7	
7439-95-4	Magnesium	112.	B	423.	B	79.5	B	81.2	B	132.	B	418.	B
7439-96-5	Manganese	7.3		47.4		5.2		10.8		23.3		47.2	
7440-02-0	Nickel	1.3	B	5.6		3.1	B	0.96	B	1.8	B	11.	
7440-09-7	Potassium			257.	B			241.	B	241.	B	641.	
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	18.5	B	32.2	B	28.1	B	49.	B	46.1	B	90.2	B
7440-28-0	Thallium												
7440-62-2	Vanadium	2.7	B	9.2		1.8	B	3.	B	4.6	B	5.8	B
7440-66-6	Zinc	12.5		125.		59.6		13.8		42.4		66.3	
7440-31-5	Tin			6.								4.2	B
7439-97-6	Mercury			0.14								0.18	
57-12-5	Cyanide							??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	549-S-B006-01		549-S-B006-02		549-S-B007-01		549-S-B007-02		549-S-B008-01		549-S-B008-02	
	ORIGINAL ID ----->	549SB00601		549SB00602		549SB00701		549SB00702		549SB00801		549SB00802	
	LAB SAMPLE ID --->	23397.16		23397.17		23408.08		23408.09		23397.18		23397.21	
	ID FROM REPORT -->	549SB00601		549SB00602		549SB00701		549SB00702		549SB00801		549SB00802	
	SAMPLE DATE ----->	08/31/95		08/31/95		09/01/95		09/01/95		08/31/95		08/31/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	09/14/95		09/14/95		09/13/95		09/13/95		09/14/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
7429-90-5	Aluminum	3260.	*	5790.	*	4790.	*	6660.	*	2700.	*	5790.	*
7440-36-0	Antimony					1.1	BN						
7440-38-2	Arsenic	2.5		1.3		1.5		2.3		6.		1.3	
7440-39-3	Barium	18.5	B	23.5		10.6	B	27.9		41.6		21.	B
7440-41-7	Beryllium	0.14	B	0.28	B			0.34	B	0.17	B	0.28	B
7440-43-9	Cadmium	0.27	B							1.8			
7440-70-2	Calcium	1490.	N*	907.	N*	1370.	N*	862.	N*	2280.	N*	700.	N*
7440-47-3	Chromium	5.7		4.		5.2		6.2		8.6		3.7	
7440-48-4	Cobalt	17.5		0.67	B	4.6	B	0.85	B	27.		1.	B
7440-50-8	Copper	28.3		15.6		16.3		146.		324.		12.7	
7439-89-6	Iron	4260.		3410.		2350.		4620.		6650.		2960.	
7439-92-1	Lead	37.5		62.		22.1		178.		300.		39.6	
7439-95-4	Magnesium	164.	B	229.	B	167.	B	307.	B	329.	B	179.	B
7439-96-5	Manganese	28.9		30.5		14.5		57.4		61.9		20.	
7440-02-0	Nickel	5.2		2.3	B	5.		2.7	B	20.8		2.8	B
7440-09-7	Potassium					337.	B	591.		231.	B		
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium					70.6	B	61.2	B			31.4	B
7440-28-0	Thallium												
7440-62-2	Vanadium	6.6		4.1	B	4.8	B	7.7		6.9		3.7	B
7440-66-6	Zinc	175.		64.1		26.5		43.8		591.		25.9	
7440-31-5	Tin	2.5	B			6.7		7.		21.9			
7439-97-6	Mercury									0.64			
57-12-5	Cyanide												
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	549-S-B009-01		549-S-B009-02		549-S-B010-01		549-S-B010-02		551-S-B001-01		551-S-B001-02	
	ORIGINAL ID ----->	549SB00901		549SB00902		549SB01001		549SB01002		551SB00101		551SB00102	
	LAB SAMPLE ID --->	23408.10		23408.11		23408.12		23408.13		23705.07		23705.08	
	ID FROM REPORT -->	549SB00901		549SB00902		549SB01001		549SB01002		551SB00101		551SB00102	
	SAMPLE DATE ----->	09/01/95		09/01/95		09/01/95		09/01/95		09/29/95		09/29/95	
	DATE EXTRACTED -->	09/08/95		09/08/95		09/08/95		09/08/95		10/05/95		10/05/95	
	DATE ANALYZED --->	09/13/95		09/13/95		09/13/95		09/13/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23704	NV	23704	NV
7429-90-5	Aluminum	3450.	*	9780.	*	4380.	*	5810.	*	2130.		5690.	
7440-36-0	Antimony	1.4	BN	0.48	BN							0.64	B
7440-38-2	Arsenic	4.8		16.8		5.5		3.6		1.5		5.8	
7440-39-3	Barium	26.5		44.3		45.6		47.2		10.8	B	33.	
7440-41-7	Beryllium	0.14	B	0.4	B	0.21	B	0.19	B	0.27	B	0.48	B
7440-43-9	Cadmium	1.1		0.32	B	1.				0.2	B	0.3	B
7440-70-2	Calcium	7580.	N*	4760.	N*	2280.	N*	1130.	N*	26100.		23200.	
7440-47-3	Chromium	7.1		9.4		12.1		12.1		10.5		16.5	
7440-48-4	Cobalt	15.3		3.7	B	47.9		0.8	B	0.79	B	1.6	B
7440-50-8	Copper	18200.		260.		255.		90.6		5.8		64.8	
7439-89-6	Iron	5060.		19800.		9440.		11000.		2990.		8060.	
7439-92-1	Lead	225.		64.9		1620.		16.9		17.9		193.	
7439-95-4	Magnesium	319.	B	553.	B	353.	B	368.	B	451.	B	1130.	
7439-96-5	Manganese	26.1		86.7		76.3		14.4		16.		56.8	
7440-02-0	Nickel	11.6		35.1		37.		2.	B	6.5		8.3	
7440-09-7	Potassium	458.	B	570.		591.		566.	B	478.	B	1220.	
7782-49-2	Selenium	0.73											
7440-22-4	Silver	3.8											
7440-23-5	Sodium			35.5	B			49.9	B	308.	B	184.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	7.		10.9		9.1		18.7		5.4	B	13.5	
7440-66-6	Zinc	346.		155.		447.		57.4		33.		212.	
7440-31-5	Tin	1800.		4.3	B	25.		3.3	B			5.6	B
7439-97-6	Mercury	0.12				0.45				0.06		0.72	
57-12-5	Cyanide									??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	551-S-B002-01		551-C-B002-01		551-S-B002-02		551-S-B003-01		551-S-B003-02		551-S-B004-01	
	ORIGINAL ID ----->	551SB00201		551CB00201		551SB00202		551SB00301		551SB00302		551SB00401	
	LAB SAMPLE ID --->	23705.09		23704.01		23705.10		23715.01		23715.02		23715.03	
	ID FROM REPORT -->	551SB00201		551CB00201		551SB00202		551SB00301		551SB00302		551SB00401	
	SAMPLE DATE ----->	09/29/95		09/29/95		09/29/95		10/02/95		10/02/95		10/02/95	
	DATE EXTRACTED -->	10/05/95		10/05/95		10/05/95		10/05/95		10/05/95		10/05/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/10/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23704	NV	23704	NV	23704	NV	23704	NV	23704	NV	23704	NV
7429-90-5	Aluminum	4030.		5320.		4150.		3390.		2550.		2380.	
7440-36-0	Antimony					0.54	B	0.97	B	1.2	B	22.2	
7440-38-2	Arsenic	1.9		4.8		4.3		3.5		2.		1.6	
7440-39-3	Barium	10.9	B	13.7	B	23.6		23.	B	136.		11.2	B
7440-41-7	Beryllium	0.19	B	0.2	B	0.29	B	0.29	B	0.24	B		
7440-43-9	Cadmium	0.11	B			0.21	B			0.17	B	0.34	B
7440-70-2	Calcium	59800.		111000.		44600.		21500.		8650.		1440.	
7440-47-3	Chromium	5.9		8.9		9.8		7.3		4.3		4.7	
7440-48-4	Cobalt	1.9	B	3.2	B	1.4	B	0.97	B	0.74	B	2.5	B
7440-50-8	Copper	12.3		10.6		24.2		49.		18.4		49.2	
7439-89-6	Iron	3000.		5310.	E	5750.		3370.		3080.		1750.	
7439-92-1	Lead	36.4		14.7		106.		74.1		168.		78.8	
7439-95-4	Magnesium	860.		1390.	E	989.		605.	B	345.	B	121.	B
7439-96-5	Manganese	79.7		99.3		73.8		39.4		39.2		13.3	
7440-02-0	Nickel	5.		7.5	E	5.8		4.	B	2.8	B	3.	B
7440-09-7	Potassium	636.		786.	E	843.		745.		545.	B	157.	B
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	81.8	B	86.6	B	190.	B	212.	B	43.7	B		
7440-28-0	Thallium												
7440-62-2	Vanadium	5.3	B	5.9		9.7		7.4		4.9	B	2.3	B
7440-66-6	Zinc	71.4		34.6		122.		79.5		97.2		159.	
7440-31-5	Tin	2.9	B	2.5	B	4.2	B	2.8	B	3.2	B	212.	B
7439-97-6	Mercury	0.07		0.04		0.22		0.08		0.15		0.09	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	551-S-B004-02		551-S-B005-01		551-S-B005-02		551-S-B006-01		551-C-B006-01		551-S-B006-02	
	ORIGINAL ID ----->	551SB00402		551SB00501		551SB00502		551SB00601		551CB00601		551SB00602	
	LAB SAMPLE ID --->	23715.04		23705.11		23705.12		23705.13		23704.02		23705.14	
	ID FROM REPORT -->	551SB00402		551SB00501		551SB00502		551SB00601		551CB00601		551SB00602	
	SAMPLE DATE ----->	10/02/95		09/29/95		09/29/95		09/29/95		09/29/95		09/29/95	
	DATE EXTRACTED -->	10/05/95		10/05/95		10/05/95		10/05/95		10/05/95		10/05/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/10/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23704	NV	23704	NV	23704	NV	23704	NV	23704	NV	23704	NV
7429-90-5	Aluminum	2480.		3330.		6360.		3070.		4580.		3990.	
7440-36-0	Antimony			0.83	B	0.62	B	8.5		3.7	B	1.7	B
7440-38-2	Arsenic	0.84	B	4.6		5.		13.1		11.7		12.	
7440-39-3	Barium	5.2	B	17.1	B	20.5	B	179.		147.		61.2	
7440-41-7	Beryllium			0.81		0.18	B	0.39	B	0.51	B	0.53	B
7440-43-9	Cadmium							2.		1.5		2.	
7440-70-2	Calcium	755.		8130.		1500.		22800.		17200.		16600.	
7440-47-3	Chromium	2.6		8.		12.5		36.9		32.5		15.2	
7440-48-4	Cobalt			5.7	B	4.5	B	69.8		39.9		8.	
7440-50-8	Copper	0.9	B	6.3		1.3	B	292.		251.		68.8	
7439-89-6	Iron	1160.		10400.		12600.		8890.		9290.	E	15000.	
7439-92-1	Lead	2.3		24.1		10.		934.		755.		344.	
7439-95-4	Magnesium	62.1	B	322.	B	579.	B	638.		757.	E	798.	
7439-96-5	Manganese	5.7		42.3		36.1		70.9		77.1		148.	
7440-02-0	Nickel	0.71	B	5.		3.5	B	31.8		38.4	E	9.7	
7440-09-7	Potassium	108.	B	701.		387.	B	648.		1010.	E	1190.	
7782-49-2	Selenium							0.61		0.69			
7440-22-4	Silver												
7440-23-5	Sodium	48.2	B	78.9	B	170.	B	190.	B	216.	B	245.	B
7440-28-0	Thallium											0.74	B
7440-62-2	Vanadium	1.2	B	21.1		19.		11.5		14.1		16.1	
7440-66-6	Zinc	1.9	B	26.6		9.6		843.		666.		1020.	
7440-31-5	Tin							13.3	B	14.6	B	5.2	B
7439-97-6	Mercury			0.11		0.03		2.2		4.1		0.72	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	552-S-B001-01		552-S-B001-02		552-S-B002-01		552-S-B002-02		552-S-B004-01		552-S-B004-02	
	ORIGINAL ID ----->	552SB00101		552SB00102		552SB00201		552SB00202		552SB00401		552SB00402	
	LAB SAMPLE ID --->	23681.05		23681.06		23681.01		23681.04		23705.05		23705.06	
	ID FROM REPORT -->	552SB00101		552SB00102		552SB00201		552SB00202		552SB00401		552SB00402	
	SAMPLE DATE ----->	09/28/95		09/28/95		09/28/95		09/28/95		09/29/95		09/29/95	
	DATE EXTRACTED -->	10/05/95		10/05/95		10/05/95		10/05/95		10/05/95		10/05/95	
	DATE ANALYZED --->	10/11/95		10/11/95		10/11/95		10/11/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23704	NV	23704	NV
7429-90-5	Aluminum	6500.	*	7290.	*	4090.	*	4660.	*	6230.		5390.	
7440-36-0	Antimony					1.	BN	0.9	BN	0.89	B	0.86	B
7440-38-2	Arsenic	0.68	B			3.		3.1		4.9		6.7	
7440-39-3	Barium	13.6	B	8.6	B	20.1	B	37.5		21.1	B	17.1	B
7440-41-7	Beryllium	0.14	B	0.12	B	0.29	B	0.27	B	0.41	B	0.51	B
7440-43-9	Cadmium					0.19	B	0.12	B	0.72			
7440-70-2	Calcium	13900.		3560.		29300.		17800.		31300.		23800.	
7440-47-3	Chromium	7.	N	8.6	N	46.1	N	11.	N	16.3		15.7	
7440-48-4	Cobalt	4.2	B	0.99	B	1.6	B	1.	B	2.7	B	1.1	B
7440-50-8	Copper	5.8	N	2.1	BN	45.2	N	17.9	N	33.1		18.6	
7439-89-6	Iron	1860.		1200.		4530.		4820.		6810.		7310.	
7439-92-1	Lead	10.5		6.6		41.7		59.8		29.6		30.9	
7439-95-4	Magnesium	557.	BN	270.	BN	1850.	N	878.	N	1130.		984.	
7439-96-5	Manganese	31.2		12.3		49.7		32.1		80.		56.3	
7440-02-0	Nickel	4.6		2.4	B	6.8		3.3	B	7.3		5.7	
7440-09-7	Potassium	822.	E	547.	BE	875.	E	693.	E	971.		755.	
7782-49-2	Selenium												
7440-22-4	Silver	0.24	B										
7440-23-5	Sodium	82.7	B			157.	B	164.	B	161.	B	138.	B
7440-28-0	Thallium							0.76	B				
7440-62-2	Vanadium	6.9		5.3	B	13.3		9.7		13.2		18.6	
7440-66-6	Zinc	16.6		12.7		73.2		68.1		89.2		59.5	
7440-31-5	Tin									3.1	B	2.6	B
7439-97-6	Mercury							0.25		0.09		0.04	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	554-S-B001-01		554-S-B001-02		554-S-B002-01		554-S-B002-02		564-S-B001-01		564-S-B001-02	
	ORIGINAL ID ----->	554SB00101		554SB00102		554SB00201		554SB00202		564SB00101		564SB00102	
	LAB SAMPLE ID --->	23448.09		23448.10		23448.13		23448.16		23459.01		23459.02	
	ID FROM REPORT -->	554SB00101		554SB00102		554SB00201		554SB00202		564SB00101		564SB00102	
	SAMPLE DATE ----->	09/07/95		09/07/95		09/07/95		09/07/95		09/08/95		09/08/95	
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95		09/21/95		09/21/95	
	DATE ANALYZED --->	09/20/95		09/20/95		09/20/95		09/20/95		09/22/95		09/22/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23447	NV	23447	NV	23447	NV
7429-90-5	Aluminum	4880.		9010.		3910.		4850.		4080.		6990.	
7440-36-0	Antimony												
7440-38-2	Arsenic	6.		17.6		4.1		2.4		4.3		4.2	
7440-39-3	Barium	32.8		44.9		16.6	B	27.1		17.3	B	17.3	B
7440-41-7	Beryllium	0.33	B	0.72		0.24	B	0.26	B	0.44	B	0.29	B
7440-43-9	Cadmium												
7440-70-2	Calcium	726.		479.	B	3190.		851.		9810.		1650.	
7440-47-3	Chromium	18.8		43.5		44.8		10.4		10.2		8.4	
7440-48-4	Cobalt	1.7	B	1.6	B	5.2	B	1.3	B	2.6	B	2.5	B
7440-50-8	Copper	133.		3.6		10.6		1.9	B	7.5		1.2	B
7439-89-6	Iron	13400.		55400.		4130.		6820.		6590.		7540.	
7439-92-1	Lead	3.6		10.8		37.7		2.8		8.4		4.5	
7439-95-4	Magnesium	230.	B	551.	B	411.	B	269.	B	888.		351.	B
7439-96-5	Manganese	38.5		39.3		32.9		35.3		76.5		28.1	
7440-02-0	Nickel	3.	B			3.9	B	2.6	B	4.1	B	3.6	B
7440-09-7	Potassium	185.	B	347.	B	201.	B	197.	B	441.	B	237.	B
7782-49-2	Selenium												
7440-22-4	Silver					0.24	B						
7440-23-5	Sodium	127.	B	81.7	B	128.	B	105.	B	383.	B	245.	B
7440-28-0	Thallium	0.56	B	4.3									
7440-62-2	Vanadium	18.4		65.		15.3		9.2		15.3		16.2	
7440-66-6	Zinc	18.6		11.7		50.2		5.6		19.7		7.2	
7440-31-5	Tin									3.	B	3.3	B
7439-97-6	Mercury	0.12				0.12							
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	564-S-B002-01		564-S-B002-02		564-S-B003-01		564-S-B003-02		566-S-B001-01		566-S-B001-02	
	ORIGINAL ID ----->	564SB00201		564SB00202		564SB00301		564SB00302		566SB00101		566SB00102	
	LAB SAMPLE ID --->	23459.11		23459.12		23459.05		23459.08		23474.09		23474.10	
	ID FROM REPORT -->	564SB00201		564SB00202		564SB00301		564SB00302		566SB00101		566SB00102	
	SAMPLE DATE ----->	09/08/95		09/08/95		09/08/95		09/08/95		09/09/95		09/09/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/21/95		09/21/95		09/17/95		09/17/95	
	DATE ANALYZED --->	09/22/95		09/22/95		09/22/95		09/22/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23447	NV	23474	NV	23474	NV
7429-90-5	Aluminum	7610.		8390.		4870.		6210.		9150.		8690.	
7440-36-0	Antimony											0.66	B
7440-38-2	Arsenic	3.3		1.7		3.6		2.2		3.5		10.5	
7440-39-3	Barium	37.3		14.6	B	38.5		29.5		15.8	B	26.9	
7440-41-7	Beryllium	0.54	B	0.41	B	0.31	B	0.4	B	0.27	B	0.38	B
7440-43-9	Cadmium												
7440-70-2	Calcium	22700.		1220.		28100.		35200.		3920.		3870.	
7440-47-3	Chromium	59.		9.3		32.1		15.6		11.1		14.3	
7440-48-4	Cobalt	3.8	B	1.9	B	2.	B	1.7	B	3.	B	2.3	B
7440-50-8	Copper	14.		1.7	B	29.3		9.2		5.		14.9	
7439-89-6	Iron	8340.		8980.		4280.		9060.		9240.		9270.	
7439-92-1	Lead	20.7		2.2		40.7		54.8		5.2		72.3	
7439-95-4	Magnesium	2170.		398.	B	1400.		993.		1580.		1170.	
7439-96-5	Manganese	98.8		31.7		53.		68.1		187.		72.2	
7440-02-0	Nickel	9.9		4.5	B	6.3		3.9	B	6.		4.9	
7440-09-7	Potassium	552.	B	195.	B	254.	B	373.	B	874.	E	951.	E
7782-49-2	Selenium					0.62							
7440-22-4	Silver	2.											
7440-23-5	Sodium	656.		248.	B	364.	B	413.	B	140.	B	135.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	17.5		18.7		7.6		17.6		14.9		18.3	
7440-66-6	Zinc	34.8		7.4		56.2		31.8		33.6		116.	
7440-31-5	Tin	2.8	B	3.2	B	5.7		4.6	B			3.8	B
7439-97-6	Mercury	0.03		0.15		0.03		0.03				0.07	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	566-S-B002-01		566-S-B002-02		566-S-B003-01		566-S-B003-02		566-S-B004-01		566-S-B004-02	
	ORIGINAL ID ----->	566SB00201		566SB00202		566SB00301		566SB00302		566SB00401		566SB00402	
	LAB SAMPLE ID --->	23474.07		23474.08		23474.15		23474.16		23474.13		23474.14	
	ID FROM REPORT -->	566SB00201		566SB00202		566SB00301		566SB00302		566SB00401		566SB00402	
	SAMPLE DATE ----->	09/09/95		09/09/95		09/09/95		09/09/95		09/09/95		09/09/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/17/95		09/17/95	
	DATE ANALYZED --->	09/26/95		09/26/95		09/26/95		09/26/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23474	NV	23474	NV	23474	NV	23474	NV	23474	NV	23474	NV
7429-90-5	Aluminum	7270.		5900.		12500.		14300.		12700.		13900.	
7440-36-0	Antimony			0.63	B			0.55	B				
7440-38-2	Arsenic	2.3		7.9		3.5		7.3		3.4		5.4	
7440-39-3	Barium	16.1	B	10.8	B	18.8	B	22.1	B	17.7	B	25.	
7440-41-7	Beryllium	0.22	B	0.15	B	0.35	B	0.26	B	0.39	B	0.25	B
7440-43-9	Cadmium												
7440-70-2	Calcium	9010.		1710.		4550.		3310.		3580.		592.	B
7440-47-3	Chromium	8.5		22.3		14.4		24.9		13.5		22.1	
7440-48-4	Cobalt	2.1	B	0.52	B	3.5	B	2.9	B	2.9	B	1.5	B
7440-50-8	Copper	6.1		0.52	B	8.6		2.	B	5.9		1.7	B
7439-89-6	Iron	5920.		21800.		11800.		17900.		10800.		13600.	
7439-92-1	Lead	5.2		7.2		6.9		11.5		6.5		12.8	
7439-95-4	Magnesium	851.		584.	B	1920.		1250.		1600.		837.	
7439-96-5	Manganese	134.		15.		234.		50.		209.		15.9	
7440-02-0	Nickel	3.5	B	0.96	B	8.2		4.6	B	6.6		3.4	B
7440-09-7	Potassium	856.	E	691.	E	961.	E	1020.	E	1070.	E	855.	E
7782-49-2	Selenium							0.64				0.76	
7440-22-4	Silver												
7440-23-5	Sodium	167.	B	151.	B	136.	B	200.	B	165.	B	62.4	B
7440-28-0	Thallium												
7440-62-2	Vanadium	11.9		31.1		19.5		44.5		18.9		28.2	
7440-66-6	Zinc	25.5		6.6		39.7		18.2		38.8		18.1	
7440-31-5	Tin					2.4	B			2.6	B		
7439-97-6	Mercury	0.03		0.03				0.07				0.04	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	566-S-B005-01		566-S-B005-02		567-S-B001-01		567-S-B002-01		567-S-B002-02		567-S-B003-01	
	ORIGINAL ID ----->	566SB00501		566SB00502		567SB00101		567SB00201		567SB00202		567SB00301	
	LAB SAMPLE ID --->	23474.11		23474.12		23561.07		23561.05		23561.06		23561.03	
	ID FROM REPORT -->	566SB00501		566SB00502		567SB00101		567SB00201		567SB00202		567SB00301	
	SAMPLE DATE ----->	09/09/95		09/09/95		09/19/95		09/19/95		09/19/95		09/19/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/21/95		09/21/95		09/21/95		09/21/95	
	DATE ANALYZED --->	09/26/95		09/26/95		10/03/95		10/03/95		10/03/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23474	NV	23474	NV	23560	NV	23560	NV	23560	NV	23560	NV
7429-90-5	Aluminum	11800.		7420.		2940.	*	3510.	*	4780.	*	5300.	*
7440-36-0	Antimony					6.7	BN*	3.9	BN*			0.97	BN*
7440-38-2	Arsenic	3.2		3.3		7.2		5.4		5.1		4.1	
7440-39-3	Barium	17.6	B	9.9	B	25.7	N	41.9	N	29.3	N	39.2	N
7440-41-7	Beryllium	0.33	B			0.33	B	0.31	B	0.38	B	0.31	B
7440-43-9	Cadmium					0.71		0.29	B			0.3	B
7440-70-2	Calcium	5170.		566.	B	29900.	*	20800.	*	6180.	*	5560.	*
7440-47-3	Chromium	14.2		13.3		27.1		9.4		11.8		78.6	
7440-48-4	Cobalt	2.9	B	0.75	B	2.	B	1.4	B	1.2	B	1.2	B
7440-50-8	Copper	5.6		0.7	B	127.	N	39.4	N	9.3	N	68.3	N
7439-89-6	Iron	12400.		9250.		9730.	*	6350.	*	8660.	*	5050.	*
7439-92-1	Lead	6.		7.1		135.	E	81.3	E	34.2	E	96.7	E
7439-95-4	Magnesium	1780.		662.		535.	B	737.		653.		819.	
7439-96-5	Manganese	216.		13.9		82.7	N	90.8	N	65.6	N	108.	N
7440-02-0	Nickel	7.		1.8	B	7.3	E	4.2	BE	2.2	BE	4.8	E
7440-09-7	Potassium	1100.	E	511.	BE	584.	E	835.	E	864.	E	652.	E
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	147.	B	156.	B	273.	BE	304.	BE	283.	BE	278.	BE
7440-28-0	Thallium												
7440-62-2	Vanadium	20.7		18.		6.6		9.8		10.4		7.8	
7440-66-6	Zinc	37.3		9.		426.	N*	144.	N*	61.	N*	369.	N*
7440-31-5	Tin	2.4	B			4.	B					4.	B
7439-97-6	Mercury					0.18		0.11		0.03		0.06	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	567-S-B003-02		567-S-B004-01		567-S-B004-02		569-S-B001-01		569-S-B001-02		569-S-B002-01	
	ORIGINAL ID ----->	567SB00302		567SB00401		567SB00402		569SB00101		569SB00102		569SB00201	
	LAB SAMPLE ID --->	23561.04		23561.01		23561.02		23802.05		23802.08		23802.11	
	ID FROM REPORT -->	567SB00302		567SB00401		567SB00402		569SB00101		569SB00102		569SB00201	
	SAMPLE DATE ----->	09/19/95		09/19/95		09/19/95		10/13/95		10/13/95		10/13/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/21/95		10/18/95		10/18/95		10/18/95	
	DATE ANALYZED --->	10/03/95		10/03/95		10/03/95		10/24/95		10/24/95		10/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23801	NV	23801	NV	23801	NV
7429-90-5	Aluminum	6920.	*	1650.	*	1160.	*	2850.		4000.		3710.	
7440-36-0	Antimony							0.53	B				
7440-38-2	Arsenic	9.6		3.9		5.8		14.8		3.2		1.8	
7440-39-3	Barium	32.7	N	12.6	BN	16.2	BN	31.5		14.5	B	14.	B
7440-41-7	Beryllium	0.6	B	0.25	B	0.5	B	0.16	B			0.21	B
7440-43-9	Cadmium					0.18	B	0.49	B			0.15	B
7440-70-2	Calcium	14900.	*	18500.	*	120000.	*	28200.		2340.		80100.	
7440-47-3	Chromium	21.6		5.9		5.4		10.3		8.		4.4	
7440-48-4	Cobalt	2.9	B	11.2		2.8	B	1.1	B	0.56	B	5.1	B
7440-50-8	Copper	69.1	N	5.7	N	2.	BN	20.2		3.3		2.7	B
7439-89-6	Iron	12100.	*	4930.	*	3280.	*	13200.		8710.		2560.	
7439-92-1	Lead	214.	E	26.4	E	6.	E	108.		2.3		10.2	
7439-95-4	Magnesium	2120.		570.	B	786.		620.		226.	B	930.	
7439-96-5	Manganese	201.	N	82.8	N	105.	N	57.1		10.6		64.	
7440-02-0	Nickel	6.3	E	7.4	E	1.8	BE	3.5	B	1.4	B	2.8	B
7440-09-7	Potassium	1530.	E	762.	E	851.	E	591.		436.	B	596.	
7782-49-2	Selenium							0.75		0.77			
7440-22-4	Silver			0.43	B								
7440-23-5	Sodium	567.	BE	392.	BE	1200.	E	32.4	B			45.5	B
7440-28-0	Thallium							1.2					
7440-62-2	Vanadium	20.3		7.		5.6		8.5		8.2		4.1	B
7440-66-6	Zinc	192.	N*	31.3	N*	19.3	N*	96.1		5.1		9.9	
7440-31-5	Tin	5.5	B										
7439-97-6	Mercury	0.04						0.07				0.02	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-META													
	SAMPLE ID ------->	569-S-B002-02		569-S-B003-01		569-S-B003-02		569-S-B004-01		569-S-B004-02		569-S-B005-01	
	ORIGINAL ID ----->	569SB00202		569SB00301		569SB00302		569SB00401		569SB00402		569SB00501	
	LAB SAMPLE ID --->	23802.12		23802.03		23802.04		23802.01		23802.02		23802.13	
	ID FROM REPORT -->	569SB00202		569SB00301		569SB00302		569SB00401		569SB00402		569SB00501	
	SAMPLE DATE ----->	10/13/95		10/13/95		10/13/95		10/13/95		10/13/95		10/13/95	
	DATE EXTRACTED -->	10/18/95		10/18/95		10/18/95		10/18/95		10/18/95		10/18/95	
	DATE ANALYZED --->	10/24/95		10/24/95		10/24/95		10/24/95		10/24/95		10/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23801	NV	23801	NV	23801	NV	23801	NV	23801	NV	23801	NV
7429-90-5	Aluminum	3970.		2850.		4240.		2250.		2550.		2710.	
7440-36-0	Antimony							0.49	B				
7440-38-2	Arsenic	0.72	B	1.7		1.2	B	12.1		2.7		0.87	B
7440-39-3	Barium	15.4	B	16.1	B	12.3	B	18.8	B	33.1		19.3	B
7440-41-7	Beryllium			0.14	B			0.17	B			0.16	B
7440-43-9	Cadmium			0.2	B			0.34	B				
7440-70-2	Calcium	1570.		9820.		1740.		70600.		1240.		6750.	
7440-47-3	Chromium	9.8		6.2		7.6		8.		5.5		3.8	
7440-48-4	Cobalt	0.32	B	4.	B	0.86	B	1.9	B	0.61	B	0.53	B
7440-50-8	Copper	0.69	B	9.6		1.4	B	20.3		3.4		1.5	B
7439-89-6	Iron	3380.		1720.		4220.		9060.		9600.		2550.	
7439-92-1	Lead	3.9		18.8		4.3		91.4		2.		3.6	
7439-95-4	Magnesium	222.	B	219.	B	216.	B	900.		163.	B	187.	B
7439-96-5	Manganese	3.5		17.7		8.		59.6		7.7		17.2	
7440-02-0	Nickel	0.76	B	3.6	B	1.5	B	4.5	B	1.1	B	1.2	B
7440-09-7	Potassium	479.	B	528.	B	407.	B	601.		575.		467.	B
7782-49-2	Selenium							0.62		0.99			
7440-22-4	Silver			1.1									
7440-23-5	Sodium	47.2	B	38.1	B	18.4	B	61.7	B	27.9	B	14.	B
7440-28-0	Thallium							0.73	B	0.93	B		
7440-62-2	Vanadium	11.1		7.4		10.9		8.4		5.1	B	4.1	B
7440-66-6	Zinc	2.9		39.8		5.9		107.		5.7		5.	
7440-31-5	Tin	4.3	B					4.2	B	3.8	B	3.5	B
7439-97-6	Mercury			0.07				0.06				0.03	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																		
	SAMPLE ID ------->	569-S-B005-02		572-S-B001-01		572-S-B001-02		572-S-B002-01		572-S-B002-02		572-S-B003-01	
	ORIGINAL ID ----->	569SB00502		572SB00101		572SB00102		572SB00201		572SB00202		572SB00301	
	LAB SAMPLE ID --->	23802.14		23472.04		23472.07		23473.03		23473.04		23473.07	
	ID FROM REPORT -->	569SB00502		572SB00101		572SB00102		572SB00201		572SB00202		572SB00301	
	SAMPLE DATE ----->	10/13/95		09/11/95		09/11/95		09/10/95		09/10/95		09/10/95	
	DATE EXTRACTED -->	10/18/95		09/16/95		09/16/95		09/16/95		09/16/95		09/16/95	
	DATE ANALYZED --->	10/24/95		09/25/95		09/25/95		09/26/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23801	NV	23471	NV	23471	NV	23473	NV	23473	NV	23473	NV
7429-90-5	Aluminum	3520.		3380.	*	3590.	*	3110.		3710.		4680.	
7440-36-0	Antimony			1.2	BN					23.5			
7440-38-2	Arsenic	1.	B	15.		1.1		3.5		9.4		8.4	
7440-39-3	Barium	9.	B	30.9	N	21.	BN	60.		61.7		63.5	
7440-41-7	Beryllium			0.3	B	0.46	B	0.33	B	0.33	B	0.38	B
7440-43-9	Cadmium			0.2	B			0.15	B	1.8		0.67	
7440-70-2	Calcium	1260.		2740.	N*	1280.	N*	15700.		769.		28200.	
7440-47-3	Chromium	10.8		5.	N	1.6	N	7.1		8.3		7.	
7440-48-4	Cobalt	0.66	B	3.2	BN	1.9	BN	1.5	B	1.9	B	6.1	B
7440-50-8	Copper	0.9	B	85.9	N*	6.	N*	36.8		15200.		155.	
7439-89-6	Iron	5970.		12000.	*	2170.	*	3860.		11100.		9440.	
7439-92-1	Lead	7.3		58.7	N*	4.8	N*	123.		5460.		129.	
7439-95-4	Magnesium	362.	B	199.	B	105.	B	357.	B	199.	B	3050.	
7439-96-5	Manganese	7.9		92.7		29.9		58.8		80.6		102.	
7440-02-0	Nickel	1.1	B	4.2	B	2.2	B	3.7	B	4.5	B	8.4	
7440-09-7	Potassium	487.	B	318.	BE	325.	BE	701.		397.	B	930.	
7782-49-2	Selenium							0.77					
7440-22-4	Silver	0.24	B							1.2	B		
7440-23-5	Sodium	27.7	B	72.5	B	64.2	B	129.	B	100.	B	132.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	11.2		4.2	BN	1.2	BN	7.5		12.7		7.7	
7440-66-6	Zinc	4.6		87.7	N*	9.4	N*	120.		2350.		286.	
7440-31-5	Tin	3.8	B	3.6	B			4.3	B	202.		13.2	
7439-97-6	Mercury			0.11		0.03		0.45	*	0.71	*	0.1	*
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																			
	SAMPLE ID ------->	572-S-B003-02			572-S-B004-01			572-S-B004-02			572-S-B005-01			572-S-B005-02			572-S-B006-01		
	ORIGINAL ID ----->	572SB00302			572SB00401			572SB00402			572SB00501			572SB00502			572SB00601		
	LAB SAMPLE ID --->	23473.08			23473.01			23473.02			23473.13			23473.14			23473.09		
	ID FROM REPORT -->	572SB00302			572SB00401			572SB00402			572SB00501			572SB00502			572SB00601		
	SAMPLE DATE ----->	09/10/95			09/10/95			09/10/95			09/10/95			09/10/95			09/10/95		
	DATE EXTRACTED -->	09/16/95			09/16/95			09/16/95			09/16/95			09/16/95			09/16/95		
	DATE ANALYZED --->	09/26/95			09/26/95			09/26/95			09/26/95			09/26/95			09/26/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil			Soil			Soil		
	UNITS ---------->	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A
CAS #	Parameter	23473		NV	23473		NV	23473		NV	23473		NV	23473		NV	23473		NV
7429-90-5	Aluminum	14200.			6720.			4150.			4210.			3530.			3520.		
7440-36-0	Antimony				0.78	B		0.59	B										
7440-38-2	Arsenic	12.8			4.4			7.5			2.9			1.6			4.1		
7440-39-3	Barium	60.			56.2			28.8			31.8			27.6			35.5		
7440-41-7	Beryllium	1.2			0.54	B		0.32	B		0.43	B		0.25	B		0.29	B	
7440-43-9	Cadmium	0.58	B																
7440-70-2	Calcium	39500.			3360.			43300.			51100.			1150.			9860.		
7440-47-3	Chromium	50.3			4.7			14.6			13.8			2.8			10.2		
7440-48-4	Cobalt	4.4	B		8.9			1.6	B		384.			8.4			13.8		
7440-50-8	Copper	20.1			35.6			12.9			13.1			2.9			12.8		
7439-89-6	Iron	16200.			3890.			14900.			6450.			2550.			5320.		
7439-92-1	Lead	46.1			107.			77.9			9.			8.7			445.		
7439-95-4	Magnesium	5590.			358.	B		3140.			832.			173.	B		355.	B	
7439-96-5	Manganese	167.			117.			138.			79.8			23.3			27.5		
7440-02-0	Nickel	20.9			4.5	B		6.8			46.7			2.1	B		5.4		
7440-09-7	Potassium	3370.			575.	B		771.			755.			422.	B		730.		
7782-49-2	Selenium	3.4						0.94											
7440-22-4	Silver										10.8								
7440-23-5	Sodium	285.	B		81.2	B		277.	B		301.	B		72.6	B		154.	B	
7440-28-0	Thallium																		
7440-62-2	Vanadium	40.4			5.9	B		9.2			19.4			3.8	B		11.5		
7440-66-6	Zinc	115.			90.2			226.			25.9			14.3			132.		
7440-31-5	Tin				5.4	B		4.1	B								3.7	B	
7439-97-6	Mercury	0.15	*		0.09	*		0.14	*		0.09	*		0.02	*		0.08	*	
57-12-5	Cyanide	??????????			??????????			??????????			??????????			??????????			??????????		
CN	Cyanide	??????????			??????????			??????????			??????????			??????????			??????????		

SW846-META															
	SAMPLE ID ------->	572-S-B006-02			572-S-B007-01			572-S-B007-02			572-S-B008-01			572-S-B008-02			573-S-B002-01		
	ORIGINAL ID ----->	572SB00602			572SB00701			572SB00702			572SB00801			572SB00802			573SB00201		
	LAB SAMPLE ID --->	23473.10			23473.05			23473.06			23473.11			23473.12			23472.10		
	ID FROM REPORT -->	572SB00602			572SB00701			572SB00702			572SB00801			572SB00802			573SB00201		
	SAMPLE DATE ----->	09/10/95			09/10/95			09/10/95			09/10/95			09/10/95			09/11/95		
	DATE EXTRACTED -->	09/16/95			09/16/95			09/16/95			09/16/95			09/16/95			09/16/95		
	DATE ANALYZED --->	09/26/95			09/26/95			09/26/95			09/26/95			09/26/95			09/25/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil			Soil			Soil		
	UNITS ---------->	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A
CAS #	Parameter	23473		NV	23473		NV	23473		NV	23473		NV	23473		NV	23471		NV
7429-90-5	Aluminum	4700.			4380.			11700.			3630.			1620.			3560.	*	
7440-36-0	Antimony							2.6	B								0.62	BN	
7440-38-2	Arsenic	6.9			6.			24.1			2.4			0.57	B		7.		
7440-39-3	Barium	39.1			77.3			53.1			42.1			14.3	B		33.	N	
7440-41-7	Beryllium	0.27	B		0.52	B		0.99			0.34	B		0.12	B		0.37	B	
7440-43-9	Cadmium	2.1			0.14	B					0.12	B					0.27	B	
7440-70-2	Calcium	3640.			4410.			33500.			3730.			367.	B		6610.	N*	
7440-47-3	Chromium	7.2			5.5			42.4			3.1			1.5			11.5	N	
7440-48-4	Cobalt	4.9	B		2.6	B		6.5	B		8.4			0.74	B		12.6	N	
7440-50-8	Copper	416.			72.			22.3			21.4			1.4	B		41.4	N*	
7439-89-6	Iron	5070.			6010.			89100.			2690.			1230.			9460.	*	
7439-92-1	Lead	5230.			154.			33.2			110.			2.9			207.	N*	
7439-95-4	Magnesium	491.	B		345.	B		3490.			202.	B		96.2	B		240.	B	
7439-96-5	Manganese	45.			40.2			572.			115.			61.3			47.		
7440-02-0	Nickel	4.3	B		6.3			20.7			6.2			1.2	B		7.7		
7440-09-7	Potassium	607.	B		630.			2250.			406.	B		215.	B		595.	E	
7782-49-2	Selenium				0.65														
7440-22-4	Silver										2.7								
7440-23-5	Sodium	79.	B		151.	B		181.	B		72.9	B		61.3	B		100.	B	
7440-28-0	Thallium																		
7440-62-2	Vanadium	5.1	B		6.9			33.5			3.2	B		1.1	B		15.6	N	
7440-66-6	Zinc	1340.			119.			61.5			86.3			5.5			125.	N*	
7440-31-5	Tin	9.2			8.9			4.8	B		2.6	B					3.6	B	
7439-97-6	Mercury	2.9	*		0.13	*		0.05	*		0.15	*					0.1		
57-12-5	Cyanide	?????????			?????????			?????????			?????????			?????????			?????????		
CN	Cyanide	?????????			?????????			?????????			?????????			?????????			?????????		

SW846-META																			
	SAMPLE ID ------->	573-C-B002-01		573-S-B002-02		573-S-B003-01		573-S-B003-02		573-C-B003-02		573-S-B004-01	
	ORIGINAL ID ----->	573CB00201		573SB00202		573SB00301		573SB00302		573CB00302		573SB00401	
	LAB SAMPLE ID --->	23471.01		23472.14		23472.15		23472.16		23471.02		23503.15	
	ID FROM REPORT -->	573CB00201		573SB00202		573SB00301		573SB00302		573CB00302		573SB00401	
	SAMPLE DATE ----->	09/11/95		09/11/95		09/11/95		09/11/95		09/11/95		09/13/95	
	DATE EXTRACTED -->	09/16/95		09/16/95		09/16/95		09/16/95		09/16/95		09/17/95	
	DATE ANALYZED --->	09/25/95		09/25/95		09/25/95		09/25/95		09/25/95		10/01/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23471	NV	23471	NV	23471	NV	23471	NV	23471	NV	23502	NV
7429-90-5	Aluminum	3700.		11200.	*	4760.	*	4780.	*	5020.		7580.	
7440-36-0	Antimony					1.3	BN						
7440-38-2	Arsenic	6.2		13.4		16.		6.4		12.4		2.9	
7440-39-3	Barium	32.8		29.6	BN	31.	N	32.6	N	36.7		20.9	BN
7440-41-7	Beryllium	0.39	B	1.2		1.1		0.47	B	0.58	B	0.58	B
7440-43-9	Cadmium	0.34	B	0.28	B			0.21	B	0.39	B		
7440-70-2	Calcium	4960.		40700.	N*	26800.	N*	32500.	N*	40400.		4050.	N*
7440-47-3	Chromium	5.8		38.4	N	11.7	N	16.7	N	17.6		7.2	
7440-48-4	Cobalt	25.9		4.5	BN	4.3	BN	2.3	BN	2.3	B	17.4	
7440-50-8	Copper	35.7		9.7	N*	10.9	N*	14.	N*	15.9		9.1	
7439-89-6	Iron	4430.		20600.	*	36500.	*	7650.	*	8840.		4570.	*
7439-92-1	Lead	148.		15.	N*	26.	N*	62.4	N*	115.		66.	
7439-95-4	Magnesium	231.	B	4960.		501.	B	2670.		3280.		373.	B
7439-96-5	Manganese	69.7		213.		133.		63.1		80.6		26.5	
7440-02-0	Nickel	14.3		14.9		5.2		7.1		8.5		3.6	B
7440-09-7	Potassium	479.	B	3220.	E	670.	E	1200.	E	1350.		807.	
7782-49-2	Selenium	0.57		2.2		0.61		1.2		0.99			
7440-22-4	Silver	1.3											
7440-23-5	Sodium	92.6	B	399.	B	84.4	B	267.	B	305.	B	113.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	6.		35.1	N	24.2	N	15.9	N	17.		7.2	
7440-66-6	Zinc	132.		54.4	N*	56.6	N*	105.	N*	155.		33.2	
7440-31-5	Tin	2.5	B									2.5	B
7439-97-6	Mercury	0.11		0.05		0.05		0.08		0.34		0.12	N
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	573-S-B004-02		573-S-B005-01		573-S-B005-02		573-C-B005-02		573-M-X001-01		573-M-X002-01	
	ORIGINAL ID ----->	573SB00402		573SB00501		573SB00502		573CB00502		573MX00101		573MX00201	
	LAB SAMPLE ID --->	23503.16		23472.17		23472.18		23471.03		23627.02		23627.03	
	ID FROM REPORT -->	573SB00402		573SB00501		573SB00502		573CB00502		573MX00101		573MX00201	
	SAMPLE DATE ----->	09/13/95		09/11/95		09/11/95		09/11/95		09/24/95		09/23/95	
	DATE EXTRACTED -->	09/17/95		09/16/95		09/16/95		09/16/95		09/29/95		09/29/95	
	DATE ANALYZED --->	10/01/95		09/25/95		09/25/95		09/25/95		10/07/95		10/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Sediment		Sediment	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23502	NV	23471	NV	23471	NV	23471	NV	23626	NV	23626	NV
7429-90-5	Aluminum	6110.		2420.	*	4070.	*	1400.		3960.	N	4040.	N
7440-36-0	Antimony			0.71	BN	0.58	BN			10.2		7.4	
7440-38-2	Arsenic	1.2		3.4		4.8		2.7		4.9		9.6	
7440-39-3	Barium	14.7	BN	22.	N	98.2	N	67.1		9700.		193.	
7440-41-7	Beryllium	0.6		0.15	B	0.41	B	0.22	B			0.45	B
7440-43-9	Cadmium			0.26	B	0.26	B	0.24	B	60.2		37.6	
7440-70-2	Calcium	1670.	N*	7120.	N*	30700.	N*	22400.		18800.	N*	16800.	N*
7440-47-3	Chromium	2.3		9.5	N	445.	N	305.		7320.		115.	
7440-48-4	Cobalt	1.1	B	3.5	BN	1.2	BN	0.56	B	2.3	B	6.3	
7440-50-8	Copper	1.7	B	236.	N*	7.1	N*	5.6		238.		943.	
7439-89-6	Iron	1730.	*	3910.	*	4800.	*	1780.		12300.		28800.	
7439-92-1	Lead			70.5	N*	38.5	N*	4.5		271.	*	405.	*
7439-95-4	Magnesium	242.	B	396.	B	2100.		1260.		5110.		1890.	
7439-96-5	Manganese	28.6		37.2		42.5		18.6		102.	*	230.	*
7440-02-0	Nickel	2.1	B	4.4		8.7		4.5	B	72.8		86.4	
7440-09-7	Potassium	356.	B	632.	E	829.	E	389.	B	1040.		953.	
7782-49-2	Selenium					0.72							
7440-22-4	Silver									15.7		35.3	
7440-23-5	Sodium			87.3	B	376.	B	278.	B	140.	B	381.	B
7440-28-0	Thallium									1.9		0.77	B
7440-62-2	Vanadium	1.9	B	6.2	N	11.4	N	5.3	B	14.6		12.9	
7440-66-6	Zinc	4.9		148.	N*	21.8	N*	12.9		776.		1540.	
7440-31-5	Tin	2.	B	7.	B					12.6		37.3	
7439-97-6	Mercury			0.35		0.03		0.03		0.19	N*	0.6	N*
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																			
	SAMPLE ID ------->	576-S-B001-01		576-S-B001-02		576-S-B002-01		576-S-B002-02		576-S-B003-01		576-C-B003-01	
	ORIGINAL ID ----->	576SB00101		576SB00102		576SB00201		576SB00202		576SB00301		576CB00301	
	LAB SAMPLE ID --->	23474.05		23474.06		23474.03		23474.04		23438.11		23437.02	
	ID FROM REPORT -->	576SB00101		576SB00102		576SB00201		576SB00202		576SB00301		576CB00301	
	SAMPLE DATE ----->	09/09/95		09/09/95		09/09/95		09/09/95		09/06/95		09/06/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/15/95		09/15/95	
	DATE ANALYZED --->	09/26/95		09/26/95		09/26/95		09/26/95		09/20/95		09/20/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23474	NV	23474	NV	23474	NV	23474	NV	23424	NV	23424	NV
7429-90-5	Aluminum	3730.		4170.		6110.		7160.		4980.		4360.	
7440-36-0	Antimony							0.72	B	0.68	B	0.77	B
7440-38-2	Arsenic	3.9		3.7		2.1		7.9		3.		3.3	
7440-39-3	Barium	19.	B	18.2	B	27.1		15.	B	31.2		25.8	
7440-41-7	Beryllium	0.41	B	0.24	B	0.48	B			0.39	B	0.4	B
7440-43-9	Cadmium	0.14	B										
7440-70-2	Calcium	36300.		1630.		3860.		956.		18700.		24500.	
7440-47-3	Chromium	11.6		6.6		5.8		19.4		5.8		6.3	
7440-48-4	Cobalt	0.67	B	2.2	B	1.4	B	0.64	B	37.9		19.8	
7440-50-8	Copper	9.2		1.	B	1.4	B	1.1	B	8.2		8.7	
7439-89-6	Iron	5100.		8350.		3560.		20900.		4460.		4140.	
7439-92-1	Lead	335.		4.7		4.1		5.7		21.7		21.4	
7439-95-4	Magnesium	911.		200.	B	224.	B	420.	B	718.		913.	
7439-96-5	Manganese	42.5		62.		20.4		36.4		51.		60.	
7440-02-0	Nickel	6.8		1.6	B	3.	B	0.92	B	5.2		4.8	
7440-09-7	Potassium	1010.	E	528.	BE	764.	E	546.	BE	282.	B	364.	B
7782-49-2	Selenium							1.				0.58	
7440-22-4	Silver												
7440-23-5	Sodium	223.	B	44.9	B	143.	B	154.	B	238.	B	300.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	7.9		15.5		8.3		38.		5.7		5.8	
7440-66-6	Zinc	38.9		5.2		6.		6.4		19.6		20.5	
7440-31-5	Tin									4.8	B	2.6	B
7439-97-6	Mercury	0.43		0.04		0.04		0.08		0.12		0.15	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	576-S-B003-02		576-S-B004-01		576-S-B004-02		576-S-B005-01		576-S-B005-02		579-S-B001-01	
	ORIGINAL ID ----->	576SB00302		576SB00401		576SB00402		576SB00501		576SB00502		579SB00101	
	LAB SAMPLE ID --->	23438.12		23438.15		23438.16		23438.17		23438.18		23485.07	
	ID FROM REPORT -->	576SB00302		576SB00401		576SB00402		576SB00501		576SB00502		579SB00101	
	SAMPLE DATE ----->	09/06/95		09/06/95		09/06/95		09/06/95		09/06/95		09/12/95	
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95		09/15/95		09/17/95	
	DATE ANALYZED --->	09/20/95		09/20/95		09/20/95		09/20/95		09/20/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23424	NV	23424	NV	23424	NV	23424	NV	23424	NV	23484	NV
7429-90-5	Aluminum	5970.		5360.		5030.		4990.		8410.		5030.	
7440-36-0	Antimony			0.68	B	0.49	B			0.84	B		
7440-38-2	Arsenic	2.5		5.7		4.4		5.7		10.4		2.	
7440-39-3	Barium	21.5	B	27.3		13.4	B	22.5	B	17.6	B	21.1	B
7440-41-7	Beryllium	0.12	B	0.44	B	0.19	B	0.39	B	0.24	B	0.17	B
7440-43-9	Cadmium			0.16	B								
7440-70-2	Calcium	1010.		4790.		1970.		9310.		1160.		1390.	
7440-47-3	Chromium	10.6		8.6		10.3		8.8		23.4		9.	
7440-48-4	Cobalt	0.82	B	4.6	B	1.6	B	27.9		1.3	B	27.4	
7440-50-8	Copper	0.95	B	24.1		1.6	B	13.7		0.49	B	14.6	
7439-89-6	Iron	7480.		5940.		9850.		5540.		28100.		3760.	
7439-92-1	Lead	9.6		119.		16.2		62.3		7.4		21.3	
7439-95-4	Magnesium	692.		637.		415.	B	778.		558.	B	277.	B
7439-96-5	Manganese	29.1		136.		36.3		52.3		56.9		27.	
7440-02-0	Nickel	1.3	B	5.3		1.7	B	4.5	B	1.6	B	16.5	
7440-09-7	Potassium	398.	B	332.	B	230.	B	411.	B	347.	B	387.	BE
7782-49-2	Selenium									1.2			
7440-22-4	Silver											5.1	
7440-23-5	Sodium	191.	B	166.	B	93.4	B	213.	B	214.	B	125.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	20.5		10.1		22.2		11.		38.3		7.1	
7440-66-6	Zinc	6.2		247.		18.4		67.9		9.5		33.2	
7440-31-5	Tin			2.6	B			3.	B			3.1	B
7439-97-6	Mercury							0.17				0.08	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	579-S-B001-02		579-S-B002-01		579-S-B002-02		579-S-B003-01		579-S-B003-02		579-S-B004-01	
	ORIGINAL ID ----->	579SB00102		579SB00201		579SB00202		579SB00301		579SB00302		579SB00401	
	LAB SAMPLE ID --->	23485.08		23485.09		23485.10		23485.11		23485.12		23485.13	
	ID FROM REPORT -->	579SB00102		579SB00201		579SB00202		579SB00301		579SB00302		579SB00401	
	SAMPLE DATE ----->	09/12/95		09/12/95		09/12/95		09/12/95		09/12/95		09/12/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/17/95		09/17/95	
	DATE ANALYZED --->	09/26/95		09/26/95		09/26/95		09/26/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23484	NV	23484	NV	23484	NV	23484	NV	23484	NV	23484	NV
7429-90-5	Aluminum	5380.		4280.		8130.		7310.		1510.		3590.	
7440-36-0	Antimony	1.1	B	7.7		0.65	B						
7440-38-2	Arsenic	3.2		61.7		10.7		5.1		0.62	B	2.1	
7440-39-3	Barium	24.6		76.6		82.6		53.6		17.1	B	6.9	B
7440-41-7	Beryllium	0.6		0.28	B	0.84		0.7		0.18	B		
7440-43-9	Cadmium			2.9		0.14	B						
7440-70-2	Calcium	971.		11700.		1920.		2330.		242.	B	918.	
7440-47-3	Chromium	4.6		50.6		10.7		6.1		1.8		5.2	
7440-48-4	Cobalt	1.2	B	2.5	B	1.6	B	2.3	B			10.2	
7440-50-8	Copper	3.1		686.		20.5		17.8		0.7	B	2.3	B
7439-89-6	Iron	3740.		12200.		4320.		6290.		1530.		2060.	
7439-92-1	Lead	15.1		362.		44.8		91.5		1.8		3.8	
7439-95-4	Magnesium	213.	B	566.	B	339.	B	405.	B	69.1	B	101.	B
7439-96-5	Manganese	36.7		99.3		113.		247.		19.9		22.8	
7440-02-0	Nickel	2.3	B	31.9		4.	B	4.3	B	0.86	B	7.3	
7440-09-7	Potassium	516.	BE	606.	E	626.	E	661.	E	257.	BE	209.	BE
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	73.7	B	139.	B	72.6	B	133.	B	63.	B	132.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	6.6		13.5		6.		8.9		2.1	B	3.	B
7440-66-6	Zinc	9.		901.		91.1		67.3		3.		6.8	
7440-31-5	Tin	2.4	B	41.		2.6	B	3.6	B	1.5	B	2.7	B
7439-97-6	Mercury			8.		0.13		0.06				0.16	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	579-C-B004-01		579-S-B004-02		580-S-B001-01		580-S-B001-02		580-S-B002-01		580-C-B002-01	
	ORIGINAL ID ----->	579CB00401		579SB00402		580SB00101		580SB00102		580SB00201		580CB00201	
	LAB SAMPLE ID --->	23484.01		23485.14		23524.03		23524.04		23524.07		23523.01	
	ID FROM REPORT -->	579CB00401		579SB00402		580SB00101		580SB00102		580SB00201		580CB00201	
	SAMPLE DATE ----->	09/12/95		09/12/95		09/14/95		09/14/95		09/14/95		09/14/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/19/95		09/19/95		09/19/95		09/19/95	
	DATE ANALYZED --->	09/26/95		09/26/95		10/01/95		10/01/95		10/01/95		09/30/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23484	NV	23484	NV	23502	NV	23502	NV	23502	NV	23502	NV
7429-90-5	Aluminum	3600.		4690.		3820.		4770.		5110.		5080.	
7440-36-0	Antimony											1.1	B
7440-38-2	Arsenic	1.4		0.68	B	16.9		2.2		10.5		9.9	
7440-39-3	Barium	7.6	B	25.8		26.2	N	18.2	BN	36.7	N	30.5	
7440-41-7	Beryllium			0.42	B	0.35	B	0.31	B	0.28	B	0.32	B
7440-43-9	Cadmium												
7440-70-2	Calcium	798.		339.	B	8100.	N	706.	N	16100.	N	17900.	
7440-47-3	Chromium	5.9		2.6		14.2		5.3		10.		14.	
7440-48-4	Cobalt	23.9		4.	B	5.5	B	2.	B	3.8	B	6.3	
7440-50-8	Copper	2.8	B	0.79	B	102.		0.94	B	14.6		33.3	
7439-89-6	Iron	2000.		2210.		8280.		4300.		9350.		8910.	
7439-92-1	Lead	5.1		1.5		140.	N			40.6	N	47.9	
7439-95-4	Magnesium	126.	B	164.	B	780.		205.	B	728.		840.	
7439-96-5	Manganese	21.7		15.6		163.	*	15.	*	77.8	*	69.9	
7440-02-0	Nickel	17.3		4.2	B	7.4		2.9	B	4.3	B	6.8	
7440-09-7	Potassium	233.	B	428.	BE	413.	B			314.	B	371.	B
7782-49-2	Selenium											0.72	
7440-22-4	Silver	0.39	B										
7440-23-5	Sodium	72.7	B	86.4	B	261.	B	224.	B	289.	B	296.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	3.5	B	3.2	B	16.5		11.6		16.		17.	
7440-66-6	Zinc	10.2		3.9		203.		6.2		49.7		84.6	
7440-31-5	Tin	2.4	B	1.6	B	9.2		1.6	B	2.7	B	2.8	B
7439-97-6	Mercury	0.03		0.14		0.07						0.47	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA																	
	SAMPLE ID ------->	018-S-B001-01		018-S-B002-01		018-S-B002-02		018-S-B003-01		018-S-B003-02		018-S-B004-01	
	ORIGINAL ID ----->	018SB00101		018SB00201		018SB00202		018SB00301		018SB00302		018SB00401	
	LAB SAMPLE ID --->	23627.12		23627.06		23627.07		23720.01		23720.02		23627.11	
	ID FROM REPORT -->	018SB00101		018SB00201		018SB00202		018SB00301		018SB00302		018SB00401	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		10/03/95		10/03/95		09/25/95	
	DATE EXTRACTED -->	09/26/95		09/26/95		09/26/95		10/06/95		10/06/95		09/26/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/16/95		10/16/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23720	NV	23720	NV	23626	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate							220.	J				
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene	180.	J							190.	J	310.	J
120-12-7	Anthracene									120.	J		
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	1100.		77.	J	710.	J	280.	J	580.	J	2100.	
129-00-0	Pyrene	1000.		80.	J	580.	J	480.	J	660.	J	2000.	
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	420.	J			130.	J	140.	J	200.	J	970.	
218-01-9	Chrysene	810.				150.	J	190.	J	220.	J	1600.	
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	230.	J	130.	J	330.	J					340.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	910.				130.	J					1600.	
207-08-9	Benzo(k)fluoranthene	770.						180.	J	180.	J	1500.	
50-32-8	Benzo(a)pyrene	540.	J					150.	J	150.	J	1000.	
193-39-5	Indeno(1,2,3-cd)pyrene	410.	J					110.	J	130.	J	760.	
53-70-3	Dibenzo(a,h)anthracene	140.	J									300.	J
191-24-2	Benzo(g,h,i)perylene	440.	J					99.	J	86.	J	790.	
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																	
	SAMPLE ID ------->	580-S-B002-02		580-S-B003-01		580-S-B003-02		580-S-B004-01		580-S-B004-02		580-S-B005-01	
	ORIGINAL ID ----->	580SB00202		580SB00301		580SB00302		580SB00401		580SB00402		580SB00501	
	LAB SAMPLE ID --->	23524.08		23524.11		23524.14		23536.01		23536.02		23524.01	
	ID FROM REPORT -->	580SB00202		580SB00301		580SB00302		580SB00401		580SB00402		580SB00501	
	SAMPLE DATE ----->	09/14/95		09/14/95		09/14/95		09/15/95		09/15/95		09/14/95	
	DATE EXTRACTED -->	09/19/95		09/19/95		09/19/95		09/19/95		09/19/95		09/19/95	
	DATE ANALYZED --->	10/01/95		10/01/95		10/01/95		09/30/95		09/30/95		09/30/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23502	NV	23502	NV	23502	NV	23535	NV	23535	NV	23502	NV
7429-90-5	Aluminum	9760.		8050.		8350.		9560.		8130.		11400.	
7440-36-0	Antimony							1.9	B	1.6	B		
7440-38-2	Arsenic	49.9		20.5		10.5		16.5		17.5		19.	
7440-39-3	Barium	33.3	BN	35.7	N	40.	N	34.8		34.5		102.	N
7440-41-7	Beryllium	1.1		0.87		1.1		0.76		0.82		0.72	B
7440-43-9	Cadmium							0.26	B	0.23	B		
7440-70-2	Calcium	6800.	N	7740.	N	5940.	N	28000.		33000.		6760.	N
7440-47-3	Chromium	28.9		23.1		25.8		27.1	N	23.1	N	23.	
7440-48-4	Cobalt	6.5	B	6.8	B	5.	B	10.4		3.9	B	6.1	B
7440-50-8	Copper	29.9		122.		14.3		61.1	N	32.5	N	50.	
7439-89-6	Iron	30900.		26400.		8610.		16700.		15600.		20500.	
7439-92-1	Lead	61.2	N	125.	N	24.7	N	113.	N	106.	N	712.	N
7439-95-4	Magnesium	2500.		2320.		2290.		2720.		2820.		2100.	
7439-96-5	Manganese	452.	*	736.	*	67.6	*	311.	N	324.	N	416.	*
7440-02-0	Nickel	10.2		10.		8.6		12.1		9.7		7.7	
7440-09-7	Potassium	1730.		1250.		1610.		1860.		1760.		1250.	
7782-49-2	Selenium	1.				1.5							
7440-22-4	Silver												
7440-23-5	Sodium	414.	B	321.	B	471.	B	534.	B	465.	B	384.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	51.8		49.9		37.8		36.4	N	34.5	N	40.3	
7440-66-6	Zinc	119.		339.		56.		198.	N	151.	N	535.	
7440-31-5	Tin	3.5	B	7.8		3.3	B	4.5	B	3.6	B	4.9	B
7439-97-6	Mercury	0.14		0.08				0.47		0.8		1.5	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	580-S-B005-02		580-S-B006-01		580-S-B006-02		583-S-B001-01		583-S-B001-02		583-S-B002-01	
	ORIGINAL ID ----->	580SB00502		580SB00601		580SB00602		583SB00101		583SB00102		583SB00201	
	LAB SAMPLE ID --->	23524.02		23524.05		23524.06		23536.03		23536.04		23536.07	
	ID FROM REPORT -->	580SB00502		580SB00601		580SB00602		583SB00101		583SB00102		583SB00201	
	SAMPLE DATE ----->	09/14/95		09/14/95		09/14/95		09/15/95		09/15/95		09/15/95	
	DATE EXTRACTED -->	09/19/95		09/19/95		09/19/95		09/19/95		09/19/95		09/19/95	
	DATE ANALYZED --->	09/30/95		10/01/95		10/01/95		09/30/95		09/30/95		09/30/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23502	NV	23502	NV	23502	NV	23535	NV	23535	NV	23535	NV
7429-90-5	Aluminum	6880.		4470.		5840.		3740.		8990.		14000.	
7440-36-0	Antimony			9.1	N								
7440-38-2	Arsenic	11.7		102.		21.5		2.3		7.8		3.4	
7440-39-3	Barium	15.6	BN	63.4	N	28.3	BN	19.	B	15.6	B	20.7	B
7440-41-7	Beryllium	0.55	B	0.37	B	0.7	B	0.3	B	0.21	B	0.44	B
7440-43-9	Cadmium			1.2									
7440-70-2	Calcium	2000.	N	2950.	N	11400.	N	24000.		2010.		13100.	
7440-47-3	Chromium	16.6		16.1		16.3		39.8	N	21.3	N	16.9	N
7440-48-4	Cobalt	5.1	B	7.5		18.4		1.6	B	1.1	B	3.3	B
7440-50-8	Copper	7.5		739.		143.		11.8	N	0.48	BN	7.9	N
7439-89-6	Iron	13900.		19900.		14800.		4120.		18100.		12000.	
7439-92-1	Lead	53.7	N	1180.	N	102.	N	16.7	N	5.8	N	7.1	N
7439-95-4	Magnesium	1140.		821.		2080.		1380.		842.		1980.	
7439-96-5	Manganese	141.	*	185.	*	370.	*	63.7	N	15.	N	232.	N
7440-02-0	Nickel	10.8		13.5		13.		3.7	B	2.4	B	7.8	
7440-09-7	Potassium	1120.		952.		1190.		801.		684.		1150.	
7782-49-2	Selenium			0.66									
7440-22-4	Silver			3.2									
7440-23-5	Sodium	339.	B	246.	B	389.	B	225.	B	236.	B	298.	B
7440-28-0	Thallium									0.67	B		
7440-62-2	Vanadium	24.8		17.3		25.4		8.2	N	33.1	N	21.4	N
7440-66-6	Zinc	163.		889.		153.		47.4	N	8.5	N	39.5	N
7440-31-5	Tin	3.	B	61.4		9.5							
7439-97-6	Mercury			0.04				0.05		0.03		0.06	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	583-S-B002-02		583-S-B003-01		583-S-B003-02		583-S-B004-01		583-S-B004-02		583-S-B005-01	
	ORIGINAL ID ----->	583SB00202		583SB00301		583SB00302		583SB00401		583SB00402		583SB00501	
	LAB SAMPLE ID --->	23536.08		23549.01		23549.02		23536.05		23536.06		23536.09	
	ID FROM REPORT -->	583SB00202		583SB00301		583SB00302		583SB00401		583SB00402		583SB00501	
	SAMPLE DATE ----->	09/15/95		09/18/95		09/18/95		09/15/95		09/15/95		09/15/95	
	DATE EXTRACTED -->	09/19/95		09/20/95		09/20/95		09/19/95		09/19/95		09/19/95	
	DATE ANALYZED --->	09/30/95		10/03/95		10/03/95		09/30/95		09/30/95		09/30/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23535	NV	23535	NV	23535	NV	23535	NV	23535	NV	23535	NV
7429-90-5	Aluminum	16200.		4210.		3890.		13200.		12300.		6120.	
7440-36-0	Antimony	0.81	B	1.	B					0.69	B		
7440-38-2	Arsenic	9.5		3.6		5.6		4.2		6.5		0.76	B
7440-39-3	Barium	41.9		20.1	B	20.6	B	18.7	B	30.8		14.2	B
7440-41-7	Beryllium	0.37	B	0.28	B	0.47	B	0.37	B	0.25	B	0.15	B
7440-43-9	Cadmium			0.11	B								
7440-70-2	Calcium	5190.		18000.		8250.		6110.		3400.		11100.	
7440-47-3	Chromium	34.7	N	179.	N	9.4	N	22.5	N	29.6	N	9.8	N
7440-48-4	Cobalt	2.	B	1.	B	3.	B	3.8	B	1.9	B	1.1	B
7440-50-8	Copper	1.2	BN	22.3	N	12.2	N	10.9	N	1.3	BN	2.2	BN
7439-89-6	Iron	31100.		4350.		7450.		11800.		22900.		2230.	
7439-92-1	Lead	10.4	N	39.8	N	34.8	N	7.	N	7.4	N	5.	N
7439-95-4	Magnesium	1980.		3130.		1260.		2290.		1530.		460.	B
7439-96-5	Manganese	43.1	N	63.1	N	112.	N	238.	N	56.7	N	22.1	N
7440-02-0	Nickel	4.1	B	4.2	B	5.3		7.4		3.8	B	2.2	B
7440-09-7	Potassium	1090.		252.	B	685.		987.		733.		512.	B
7782-49-2	Selenium	1.2											
7440-22-4	Silver												
7440-23-5	Sodium	402.	B	353.	B	322.	B	245.	B	253.	B	199.	B
7440-28-0	Thallium	1.	B										
7440-62-2	Vanadium	46.	N	9.	N	12.1	N	20.5	N	33.5	N	6.7	N
7440-66-6	Zinc	18.	N	46.2	N	41.8	N	39.1	N	16.6	N	7.	N
7440-31-5	Tin					3.	B	2.9	B				
7439-97-6	Mercury	0.1						0.02		0.05		0.07	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	583-S-B005-02		583-S-B006-01		583-C-B006-01		583-S-B006-02		583-S-B007-01		583-S-B007-02	
	ORIGINAL ID ----->	583SB00502		583SB00601		583CB00601		583SB00602		583SB00701		583SB00702	
	LAB SAMPLE ID --->	23536.10		23536.11		23535.01		23536.12		23549.03		23549.04	
	ID FROM REPORT -->	583SB00502		583SB00601		583CB00601		583SB00602		583SB00701		583SB00702	
	SAMPLE DATE ----->	09/15/95		09/15/95		09/15/95		09/15/95		09/18/95		09/18/95	
	DATE EXTRACTED -->	09/19/95		09/19/95		09/19/95		09/19/95		09/20/95		09/20/95	
	DATE ANALYZED --->	09/30/95		09/30/95		09/30/95		09/30/95		10/03/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23535	NV	23535	NV	23535	NV	23535	NV	23535	NV	23535	NV
7429-90-5	Aluminum	1590.		5190.		2750.		8640.		3840.		4810.	
7440-36-0	Antimony					0.46	B						
7440-38-2	Arsenic			2.9		2.8		9.4		5.1		5.4	
7440-39-3	Barium	3.9	B	18.5	B	15.1	B	15.8	B	33.2		39.6	
7440-41-7	Beryllium			0.27	B	0.21	B	0.64	B	0.24	B	0.76	
7440-43-9	Cadmium					0.11	B						
7440-70-2	Calcium	301.	B	19300.		16100.		10700.		9630.		11600.	
7440-47-3	Chromium	2.1	N	24.7	N	22.3		22.3	N	35.7	N	13.7	N
7440-48-4	Cobalt	0.27	B	1.2	B	0.91	B	2.7	B	2.2	B	4.4	B
7440-50-8	Copper	0.51	BN	17.8	N	15.7		3.6	BN	13.4	N	6.7	N
7439-89-6	Iron	752.		4360.		3130.		13300.		4300.		11100.	
7439-92-1	Lead	1.6	N	31.	N	22.1		7.5	N	27.6	N	14.9	N
7439-95-4	Magnesium	115.	B	1830.		1590.		1960.		1170.		1560.	
7439-96-5	Manganese	3.7	N	47.4	N	41.7		153.	N	64.4	N	111.	N
7440-02-0	Nickel	0.7	B	5.2		3.9	B	6.1	B	4.4	B	7.7	
7440-09-7	Potassium			706.		451.	B	1670.		236.	B	838.	
7782-49-2	Selenium											1.1	
7440-22-4	Silver											0.39	B
7440-23-5	Sodium	189.	B	266.	B	258.	B	329.	B	286.	B	302.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	2.2	BN	10.5	N	6.8		22.	N	9.2	N	17.3	N
7440-66-6	Zinc	2.1	BN	37.4	N	30.9		20.1	N	87.8	N	31.9	N
7440-31-5	Tin												
7439-97-6	Mercury			0.1		0.06				0.04			
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	586-S-B001-01		586-S-B001-02		586-S-B002-01		586-S-B002-02		586-S-B003-01		586-S-B003-02	
	ORIGINAL ID ----->	586SB00101		586SB00102		586SB00201		586SB00202		586SB00301		586SB00302	
	LAB SAMPLE ID --->	23814.03		23814.04		23814.07		23814.08		23814.09		23814.12	
	ID FROM REPORT -->	586SB00101		586SB00102		586SB00201		586SB00202		586SB00301		586SB00302	
	SAMPLE DATE ----->	10/16/95		10/16/95		10/16/95		10/16/95		10/16/95		10/16/95	
	DATE EXTRACTED -->	10/19/95		10/19/95		10/19/95		10/19/95		10/19/95		10/19/95	
	DATE ANALYZED --->	10/25/95		10/25/95		10/25/95		10/25/95		10/25/95		10/25/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23814	NV	23814	NV	23814	NV	23814	NV	23814	NV	23814	NV
7429-90-5	Aluminum	6400.		1380.		11700.		6630.		6860.		5290.	
7440-36-0	Antimony	1.8	BN										
7440-38-2	Arsenic	23.3		3.3		17.2		16.7		7.9		5.	
7440-39-3	Barium	30.4		12.5	B	27.3	B	73.1		22.	B	22.2	B
7440-41-7	Beryllium	0.63	B	0.31	B	0.96		1.1		0.7	B	0.75	B
7440-43-9	Cadmium	0.8								0.34	B	0.34	B
7440-70-2	Calcium	85400.	E	6100.	E	18100.	E	18800.	E	77900.	E	29900.	E
7440-47-3	Chromium	32.9		4.3		27.3		16.1		25.8		21.4	
7440-48-4	Cobalt	3.4	B	1.1	B	5.8	B	5.3	B	3.2	B	4.7	B
7440-50-8	Copper	104.		1.4	B	41.5		7.		22.7		21.5	
7439-89-6	Iron	9680.		3250.		22500.		16100.		10000.		10600.	
7439-92-1	Lead	132.		2.6		50.2		11.2		19.1		19.9	
7439-95-4	Magnesium	3880.		424.	B	3900.		2380.		3790.		3790.	
7439-96-5	Manganese	202.	N	42.2	N	431.	N	154.	N	140.	N	163.	N
7440-02-0	Nickel	14.2	E	2.2	BE	9.5	E	10.	E	12.5	E	11.6	E
7440-09-7	Potassium	1230.	E	707.	E	2430.	E	2010.	E	1840.	E	2710.	E
7782-49-2	Selenium	1.1				1.2		1.1		1.			
7440-22-4	Silver												
7440-23-5	Sodium	929.		162.	B	305.	B	355.	B	684.	B	292.	B
7440-28-0	Thallium	0.91	B			1.7	B	1.3	B	0.9	B	1.3	B
7440-62-2	Vanadium	20.8		4.5	B	48.5		22.9		19.2		15.9	
7440-66-6	Zinc	178.		6.8		130.		26.		76.8		93.7	
7440-31-5	Tin	4.8	B										
7439-97-6	Mercury	0.18				0.3		0.04		0.06			
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	586-S-B004-01		586-S-B004-02		596-S-B006-01		596-S-B006-02		598-S-B001-01		598-S-B001-02	
	ORIGINAL ID ----->	586SB00401		586SB00402		596SB00601		596SB00602		598SB00101		598SB00102	
	LAB SAMPLE ID --->	23814.05		23814.06		23844.01		23844.02		23561.10		23561.13	
	ID FROM REPORT -->	586SB00401		586SB00402		596SB00601		596SB00602		598SB00101		598SB00102	
	SAMPLE DATE ----->	10/16/95		10/16/95		10/20/95		10/20/95		09/19/95		09/19/95	
	DATE EXTRACTED -->	10/19/95		10/19/95		10/26/95		10/26/95		09/21/95		09/21/95	
	DATE ANALYZED --->	10/25/95		10/25/95		11/02/95		11/02/95		10/03/95		10/03/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23814	NV	23814	NV	23814	NV	23814	NV	23560	NV	23560	NV
7429-90-5	Aluminum	6930.		3600.		2070.		10000.		2020.	*	8270.	*
7440-36-0	Antimony	1.3	BN			2.3	BN			4.9	BN*	0.82	BN*
7440-38-2	Arsenic	10.1		8.1		155.		19.		9.8		10.4	
7440-39-3	Barium	35.8		20.5	B	110.		96.4		32.9	N	36.5	N
7440-41-7	Beryllium	0.72		0.59	B	0.38	B	0.41	B	0.32	B	0.52	B
7440-43-9	Cadmium	0.36	B			1.3		0.23	B	0.45	B	0.34	B
7440-70-2	Calcium	67500.	E	5570.	E	2280.	E	30600.	E	11800.	*	35100.	*
7440-47-3	Chromium	29.4		15.6		18.6		20.5		16.8		22.9	
7440-48-4	Cobalt	13.4		3.9	B	2.5	B	1.8	B	3.3	B	2.5	B
7440-50-8	Copper	16.5		3.6	B	194.		15.1		59.5	N	38.7	N
7439-89-6	Iron	8440.		8810.		4920.		11500.		5320.	*	13400.	*
7439-92-1	Lead	46.2		7.8		275.		28.1		127.	E	456.	E
7439-95-4	Magnesium	4220.		1880.		373.	B	2480.		404.	B	2400.	
7439-96-5	Manganese	189.	N	63.6	N	37.9	N	76.2	N	48.4	N	166.	N
7440-02-0	Nickel	15.2	E	6.	BE	14.3	E	9.3	E	13.	E	11.3	E
7440-09-7	Potassium	1250.	E	1590.	E	398.	BE	1180.	E	687.	E	1710.	E
7782-49-2	Selenium	1.1						1.1					
7440-22-4	Silver												
7440-23-5	Sodium	721.		125.	B	61.2	B	290.	B	292.	BE	843.	E
7440-28-0	Thallium	0.87	B					0.85	B			0.7	B
7440-62-2	Vanadium	21.4		11.4		18.2		26.9		8.8		25.	
7440-66-6	Zinc	73.6		21.1		270.		65.8		278.	N*	314.	N*
7440-31-5	Tin					7.7		4.2	B	7.3	B	18.1	B
7439-97-6	Mercury	0.13		0.03		0.15		0.15		0.04		0.04	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	598-S-B002-01		598-S-B002-02		598-C-B002-02		598-S-B003-01		598-S-B003-02		598-S-B004-01	
	ORIGINAL ID ----->	598SB00201		598SB00202		598CB00202		598SB00301		598SB00302		598SB00401	
	LAB SAMPLE ID --->	23561.08		23561.09		23560.01		23575.03		23575.04		23575.01	
	ID FROM REPORT -->	598SB00201		598SB00202		598CB00202		598SB00301		598SB00302		598SB00401	
	SAMPLE DATE ----->	09/19/95		09/19/95		09/19/95		09/20/95		09/20/95		09/20/95	
	DATE EXTRACTED -->	09/21/95		09/21/95		09/21/95		09/22/95		09/22/95		09/22/95	
	DATE ANALYZED --->	10/03/95		10/03/95		10/04/95		10/04/95		10/04/95		10/04/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV
7429-90-5	Aluminum	5770.	*	2800.	*	1990.		6400.	*	7000.	*	3700.	*
7440-36-0	Antimony			0.81	BN*			0.78	BN*	0.71	BN*	1.8	BN*
7440-38-2	Arsenic	7.4		7.2		4.8		13.5		9.8		13.1	
7440-39-3	Barium	46.6	N	72.5	N	137.		33.7	N	50.5	N	39.8	N
7440-41-7	Beryllium	0.4	B	0.37	B	0.22	B	0.78		0.52	B	0.33	B
7440-43-9	Cadmium	0.37	B	0.93		1.8		0.45	B			0.57	B
7440-70-2	Calcium	37100.	*	160000.	*	663.		49600.	*	28100.	*	29600.	*
7440-47-3	Chromium	15.1		32.5		12.5		24.7		17.8		16.8	
7440-48-4	Cobalt	2.2	B	0.94	B	0.98	B	2.1	B	1.7	B	2.9	B
7440-50-8	Copper	25.9	N	30.7	N	44.9		19.6	N	16.1	N	85.6	N
7439-89-6	Iron	10200.	*	6650.	*	5600.		9510.	*	14700.	*	7970.	*
7439-92-1	Lead	212.	E	462.	E	1680.		60.3	E	66.6	E	229.	E
7439-95-4	Magnesium	1960.		3950.		16.7		2460.		1860.		1210.	
7439-96-5	Manganese	86.9	N	94.3	N	55.7		86.	N	101.	N	83.	N
7440-02-0	Nickel	7.5	E	15.2	E	7.5		9.9	E	6.8	E	13.7	E
7440-09-7	Potassium	1150.	E	1190.	E	687.	E	1540.	E	1450.	E	909.	E
7782-49-2	Selenium			1.2		0.79		0.98		1.		0.79	
7440-22-4	Silver												
7440-23-5	Sodium	538.	BE	1120.	E	807.		932.	E	721.	E	428.	BE
7440-28-0	Thallium												
7440-62-2	Vanadium	18.4		18.8		8.9		20.3		24.		13.5	
7440-66-6	Zinc	267.	N*	469.	N*	805.	E	138.	N*	98.1	N*	312.	N*
7440-31-5	Tin	4.9	B	5.5	B	9.3	B	2.9	B	3.4	B	6.7	B
7439-97-6	Mercury	0.04		0.09		0.04		0.05		0.06		0.07	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	598-S-B004-02		598-M-X001-01		599-S-B001-01		599-S-B001-02		599-S-B002-01		599-S-B003-01	
	ORIGINAL ID ----->	598SB00402		598MX00101		599SB00101		599SB00102		599SB00201		599SB00301	
	LAB SAMPLE ID --->	23575.02		23627.05		23575.11		23575.12		23575.06		23575.05	
	ID FROM REPORT -->	598SB00402		598MX00101		599SB00101		599SB00102		599SB00201		599SB00301	
	SAMPLE DATE ----->	09/20/95		09/24/95		09/20/95		09/20/95		09/20/95		09/20/95	
	DATE EXTRACTED -->	09/22/95		09/29/95		09/22/95		09/22/95		09/22/95		09/22/95	
	DATE ANALYZED --->	10/04/95		10/07/95		10/04/95		10/04/95		10/04/95		10/04/95	
	MATRIX ---------->	Soil		Sediment		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23560	NV	23626	NV	23560	NV	23560	NV	23560	NV	23560	NV
7429-90-5	Aluminum	5390.	*	2650.	N	4550.	*	8550.	*	7170.	*	3760.	*
7440-36-0	Antimony	1.1	BN*	1.8	B			1.1	BN*	0.62	BN*	0.68	BN*
7440-38-2	Arsenic	11.5		6.2		9.5		21.6		5.2		11.7	
7440-39-3	Barium	26.9	N	68.		15.8	BN	36.5	N	46.9	N	22.2	BN
7440-41-7	Beryllium	0.34	B	0.18	B	0.33	B	0.6	B	0.38	B	0.2	B
7440-43-9	Cadmium	0.51	B	1.6				0.16	B				
7440-70-2	Calcium	19100.	*	33600.	N*	4920.	*	20400.	*	24900.	*	7510.	*
7440-47-3	Chromium	15.2		72.6		9.8		21.4		14.4		8.6	
7440-48-4	Cobalt	1.8	B	3.7	B	1.4	B	4.2	B	1.2	B	1.7	B
7440-50-8	Copper	60.9	N	5880.		12.6	N	97.1	N	8.4	N	14.5	N
7439-89-6	Iron	10000.	*	14900.		8710.	*	16200.	*	13000.	*	6990.	*
7439-92-1	Lead	126.	E	368.	*	27.5	E	68.1	E	423.	E	30.3	E
7439-95-4	Magnesium	1330.		2200.		810.		1920.		1130.		594.	
7439-96-5	Manganese	71.5	N	176.	*	62.1	N	89.9	N	42.8	N	29.	N
7440-02-0	Nickel	7.8	E	28.9		4.2	BE	9.5	E	5.5	E	3.9	BE
7440-09-7	Potassium	1100.	E	739.		1010.	E	1700.	E	1170.	E	920.	E
7782-49-2	Selenium							0.73					
7440-22-4	Silver			0.74	B								
7440-23-5	Sodium	701.	E	259.	B	254.	BE	435.	BE	432.	BE	262.	BE
7440-28-0	Thallium												
7440-62-2	Vanadium	17.8		14.7		13.7		30.4		25.1		13.3	
7440-66-6	Zinc	172.	N*	1250.		36.	N*	168.	N*	48.7	N*	42.2	N*
7440-31-5	Tin	4.3	B	8.4		2.5	B	6.	B	6.3	B	3.	B
7439-97-6	Mercury	0.05		0.05	N*	0.03		0.06		0.07		0.11	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	599-S-B004-01		599-S-B004-02		599-S-B005-01		599-S-B005-02		599-C-B005-02		599-M-X001-01	
	ORIGINAL ID ----->	599SB00401		599SB00402		599SB00501		599SB00502		599CB00502		599MX00101	
	LAB SAMPLE ID --->	23575.07		23575.10		23575.13		23575.16		23574.01		23627.04	
	ID FROM REPORT -->	599SB00401		599SB00402		599SB00501		599SB00502		599CB00502		599MX00101	
	SAMPLE DATE ----->	09/20/95		09/20/95		09/20/95		09/20/95		09/20/95		09/24/95	
	DATE EXTRACTED -->	09/22/95		09/22/95		09/22/95		09/22/95		09/22/95		09/29/95	
	DATE ANALYZED --->	10/04/95		10/04/95		10/04/95		10/04/95		10/04/95		10/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Sediment	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV	23626	NV
7429-90-5	Aluminum	7560.	*	5570.	*	5990.	*	6440.	*	4310.		1410.	N
7440-36-0	Antimony	0.71	BN*	0.72	BN*	1.2	BN*	0.73	BN*	1.4	B	1.6	B
7440-38-2	Arsenic	12.1		8.9		10.8		10.5		9.9		6.1	
7440-39-3	Barium	27.	N	11.3	BN	51.8	N	36.7	N	38.2		17.5	B
7440-41-7	Beryllium	0.47	B	0.48	B	0.42	B	0.4	B	0.28	B		
7440-43-9	Cadmium	0.22	B	0.37	B	0.81		0.21	B	0.67		1.6	
7440-70-2	Calcium	108000.	*	179000.	*	19400.	*	22200.	*	24100.		16200.	N*
7440-47-3	Chromium	26.1		36.7		17.1		18.8		20.5		26.3	
7440-48-4	Cobalt	2.	B	1.2	B	2.4	B	1.9	B	1.5	B	2.3	B
7440-50-8	Copper	23.4	N	9.4	N	68.	N	35.8	N	30.5		17900.	
7439-89-6	Iron	10300.	*	7400.	*	11700.	*	12300.	*	10900.		21300.	
7439-92-1	Lead	36.	E	8.4	E	233.	E	373.	E	149.		182.	*
7439-95-4	Magnesium	2930.		4840.		1360.		1560.		1260.		1550.	
7439-96-5	Manganese	121.	N	107.	N	83.7	N	86.4	N	101.		168.	*
7440-02-0	Nickel	10.7	E	16.8	E	11.5	E	7.6	E	7.4		77.5	
7440-09-7	Potassium	1240.	E	1480.	E	1450.	E	1340.	E	1010.	E	509.	B
7782-49-2	Selenium	0.97		2.				0.66		0.74			
7440-22-4	Silver											1.3	
7440-23-5	Sodium	778.	E	959.	E	401.	BE	462.	BE	327.	B	1090.	
7440-28-0	Thallium											1.1	B
7440-62-2	Vanadium	22.1		22.7		23.		21.6		16.3		5.9	B
7440-66-6	Zinc	93.7	N*	58.2	N*	354.	N*	174.	N*	212.	E	3970.	
7440-31-5	Tin	3.1	B	2.8	B	12.3	B	4.4	B	5.1	B	17.2	
7439-97-6	Mercury	0.05				0.24		0.09		0.05			
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	603-S-B001-01		603-S-B001-02		603-S-B002-01		603-S-B002-02		603-S-B003-01		603-S-B003-02	
	ORIGINAL ID ----->	603SB00101		603SB00102		603SB00201		603SB00202		603SB00301		603SB00302	
	LAB SAMPLE ID --->	23575.17		23575.18		23575.21		23575.22		23594.11		23594.14	
	ID FROM REPORT -->	603SB00101		603SB00102		603SB00201		603SB00202		603SB00301		603SB00302	
	SAMPLE DATE ----->	09/20/95		09/20/95		09/20/95		09/20/95		09/21/95		09/21/95	
	DATE EXTRACTED -->	09/22/95		09/22/95		09/22/95		09/22/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/04/95		10/04/95		10/04/95		10/04/95		10/06/95		10/06/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23560	NV	23593	NV	23593	NV
7429-90-5	Aluminum	1030.	*	6810.	*	2580.	*	8000.	*	6780.		8590.	
7440-36-0	Antimony	3.3	BN*							1.2	B	2.	B
7440-38-2	Arsenic	1.2		4.6		0.61	B	9.5		6.7		20.1	
7440-39-3	Barium	3.8	BN	46.5	N	8.4	BN	36.1	N	14.4	B	14.4	B
7440-41-7	Beryllium			0.73				0.65	B	0.16	B	0.36	B
7440-43-9	Cadmium	0.16	B	0.3	B			0.2	B				
7440-70-2	Calcium	22600.	*	20300.	*	269.	B*	15800.	*	13100.	N*	853.	N*
7440-47-3	Chromium	5.9		28.		3.3		19.9		12.6	N	21.3	N
7440-48-4	Cobalt	0.29	B	2.6	B	30.6		2.6	B	1.5	B	1.8	B
7440-50-8	Copper	13.5	N	5.2	N	2.5	BN	8.	N	24.1	*	9.5	*
7439-89-6	Iron	1360.	*	8910.	*	1580.	*	11200.	*	9520.		27400.	
7439-92-1	Lead	21.7	E	6.1	E	3.4	E	38.6	E	34.1	N	14.2	N
7439-95-4	Magnesium	280.	B	1940.		58.2	B	1930.		527.	B	454.	B
7439-96-5	Manganese	19.8	N	76.9	N	5.4	N	115.	N	95.8		47.	
7440-02-0	Nickel	2.6	BE	9.6	E	13.2	E	8.1	E	4.6		4.8	B
7440-09-7	Potassium	611.	E	1530.	E	121.	BE	1570.	E	651.		601.	B
7782-49-2	Selenium			0.99				0.83				0.72	
7440-22-4	Silver					0.28	B						
7440-23-5	Sodium	216.	BE	876.	E	190.	BE	579.	BE	105.	B	85.2	B
7440-28-0	Thallium											0.8	B
7440-62-2	Vanadium	2.2	B	20.3		4.2	B	22.9		15.5		29.3	
7440-66-6	Zinc	39.2	N*	33.1	N*	2.6	N*	39.5	N*	51.7		60.5	
7440-31-5	Tin	2.7	B					2.7	B	2.9	B	3.	B
7439-97-6	Mercury	0.03											
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	603-S-B004-01		603-S-B004-02		605-S-B001-01		605-S-B002-01		605-S-B002-02		605-S-B003-01	
	ORIGINAL ID ----->	603SB00401		603SB00402		605SB00101		605SB00201		605SB00202		605SB00301	
	LAB SAMPLE ID --->	23594.15		23594.16		23627.08		23646.01		23646.02		23594.28	
	ID FROM REPORT -->	603SB00401		603SB00402		605SB00101		605SB00201		605SB00202		605SB00301	
	SAMPLE DATE ----->	09/21/95		09/21/95		09/25/95		09/26/95		09/26/95		09/21/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/29/95		09/29/95		09/29/95		09/25/95	
	DATE ANALYZED --->	10/06/95		10/06/95		10/07/95		10/07/95		10/07/95		10/06/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23626	NV	23626	NV	23626	NV	23593	NV
7429-90-5	Aluminum	7840.		14400.		2260.	N	85.1	N	285.	N	2130.	
7440-36-0	Antimony	0.61	B	0.9	B	1.7	B	8.8		2.8	B	6.5	B
7440-38-2	Arsenic	5.5		15.8		5.7		1.1	B	11.		10.9	
7440-39-3	Barium	11.	B	55.5		23.9		70.7		27.9		67.1	
7440-41-7	Beryllium	0.15	B	0.68		0.51	B					0.84	
7440-43-9	Cadmium			0.86		0.52	B			1.		1.4	
7440-70-2	Calcium	11300.	N*	27900.	N*	124000.	N*	246.	BN*	266.	BN*	32200.	N*
7440-47-3	Chromium	9.8	N	42.9	N	21.3		1.4		5.8		50.7	N
7440-48-4	Cobalt	0.93	B	2.7	B	3.8	B			1.8	B	11.5	
7440-50-8	Copper	6.7	*	15.	*	111.		3.8		79.8		165.	*
7439-89-6	Iron	9660.		18700.		6570.		482.		828.		8220.	
7439-92-1	Lead	7.1	N	272.	N	205.	*	1600.	*	1260.	*	270.	N
7439-95-4	Magnesium	432.	B	3250.		1490.				21.2	B	737.	
7439-96-5	Manganese	17.9		97.9		165.	*	1.1	B*	3.3	*	95.2	
7440-02-0	Nickel	2.7	B	14.2		20.5		0.77	B	7.4		38.8	
7440-09-7	Potassium	724.		1480.		824.						547.	B
7782-49-2	Selenium			1.2									
7440-22-4	Silver					1.1	B					0.22	B
7440-23-5	Sodium	431.	B	1320.		122.	B	38.	B	91.5	B	284.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	16.1		40.5		9.7		1.2	B	6.6	B	6.7	
7440-66-6	Zinc	13.4		507.		376.		5.3		365.		906.	
7440-31-5	Tin	2.7	B	3.5	B	15.9						30.1	
7439-97-6	Mercury					0.23	N*	0.38	N*	0.14	N*	0.07	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	605-S-B004-01		605-S-B005-01		605-S-B005-02		605-S-B006-01		605-S-B006-02		605-S-B007-01	
	ORIGINAL ID ----->	605SB00401		605SB00501		605SB00502		605SB00601		605SB00602		605SB00701	
	LAB SAMPLE ID --->	23594.25		23646.03		23646.04		23596.12		23596.15		23596.11	
	ID FROM REPORT -->	605SB00401		605SB00501		605SB00502		605SB00601		605SB00602		605SB00701	
	SAMPLE DATE ----->	09/21/95		09/26/95		09/26/95		09/22/95		09/22/95		09/22/95	
	DATE EXTRACTED -->	09/25/95		09/29/95		09/29/95		09/25/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/06/95		10/07/95		10/07/95		10/06/95		10/06/95		10/06/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23593	NV	23626	NV	23626	NV	23593	NV	23593	NV	23593	NV
7429-90-5	Aluminum	15000.		1930.	N	4800.	N	761.		18800.		3040.	
7440-36-0	Antimony	1.5	B	5.3	B	4.6	B	2.7	B*	0.59	B*	9.5	*
7440-38-2	Arsenic	18.6		7.2		7.2		2.5		19.		3.2	
7440-39-3	Barium	41.3		117.		85.7		15.	BN	42.	N	86.5	N
7440-41-7	Beryllium	0.66		2.2		0.83		0.31	B	0.91		3.7	
7440-43-9	Cadmium	0.17	B	1.1		1.8		0.63				0.33	B
7440-70-2	Calcium	8750.	N*	91400.	N*	10800.	N*	40900.		12400.		3130.	
7440-47-3	Chromium	37.5	N	30.4		67.7		21.3	N*	37.	N*	74.7	N*
7440-48-4	Cobalt	5.6	B	10.9		5.4	B	2.2	B	5.2	B	27.3	
7440-50-8	Copper	37.5	*	291.		158.		82.1		19.2		746.	
7439-89-6	Iron	18400.		10000.		14500.		3860.	*	25900.	*	20000.	*
7439-92-1	Lead	113.	N	249.	*	300.	*	399.	*	33.2	*	1190.	*
7439-95-4	Magnesium	2240.		1280.		817.		600.		3270.		750.	
7439-96-5	Manganese	171.		189.	*	129.	*	63.2	N	273.	N	227.	N
7440-02-0	Nickel	11.6		73.8		27.7		16.3		12.7		245.	
7440-09-7	Potassium	1770.		708.		941.		370.	B	2540.		323.	B
7782-49-2	Selenium	0.76		0.69						0.73		0.85	
7440-22-4	Silver			0.24	B							0.3	B
7440-23-5	Sodium	279.	B	528.	B	413.	B	82.7	B	768.		738.	
7440-28-0	Thallium												
7440-62-2	Vanadium	40.		7.8		14.5		14.		48.6		10.8	
7440-66-6	Zinc	219.		1170.		1110.		550.	*	84.	*	2670.	*
7440-31-5	Tin	4.8	B	46.2		17.7		11.		4.4	B	152.	
7439-97-6	Mercury	0.05		0.59	N*	1.1	N*	0.05		0.09		0.32	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-META													
	SAMPLE ID ------->	605-S-B008-01		605-S-B008-02		605-S-B009-01		605-S-B009-02		605-S-B010-01		605-C-B010-01	
	ORIGINAL ID ----->	605SB00801		605SB00802		605SB00901		605SB00902		605SB01001		605CB01001	
	LAB SAMPLE ID --->	23596.05		23596.06		23596.01		23596.04		23594.21		23593.02	
	ID FROM REPORT -->	605SB00801		605SB00802		605SB00901		605SB00902		605SB01001		605CB01001	
	SAMPLE DATE ----->	09/22/95		09/22/95		09/22/95		09/22/95		09/21/95		09/21/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/25/95		09/25/95		09/25/95		09/28/95	
	DATE ANALYZED --->	10/06/95		10/06/95		10/06/95		10/06/95		10/06/95		10/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23593	NV	23593	NV	23593	NV	23593	NV
7429-90-5	Aluminum	5520.		6150.		1790.		3280.		3120.		2640.	
7440-36-0	Antimony	2.1	B*	0.61	B*	4.5	B*	3.1	B*	1.1	B		
7440-38-2	Arsenic	8.8		4.2		3.3		4.2		2.3		7.3	
7440-39-3	Barium	19.2	BN	9.7	BN	30.5	N	27.4	N	12.	B	15.4	B
7440-41-7	Beryllium	0.63				0.64		0.56	B	0.38	B	0.45	B
7440-43-9	Cadmium					0.55	B	0.55	B	0.24	B		
7440-70-2	Calcium	7840.		1310.		1750.		752.		22300.	N*	6390.	
7440-47-3	Chromium	21.7	N*	18.6	N*	47.7	N*	25.9	N*	17.9	N	9.6	
7440-48-4	Cobalt	2.2	B	0.43	B	6.6		2.6	B	1.7	B	2.2	B
7440-50-8	Copper	65.		1.9	B	161.		101.		65.7	*	6.4	
7439-89-6	Iron	15900.	*	18000.	*	8120.	*	7440.	*	6050.		8950.	
7439-92-1	Lead	460.	*	14.2	*	731.	*	200.	*	120.	N	13.2	
7439-95-4	Magnesium	233.	B	161.	B	271.	B	204.	B	406.	B	1270.	
7439-96-5	Manganese	27.	N	24.5	N	60.4	N	42.6	N	79.8		79.4	
7440-02-0	Nickel	21.9		1.7	B	39.2		20.6		9.3		4.3	B
7440-09-7	Potassium	602.		427.	B	440.	B	460.	B	560.	B	1230.	
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	117.	B	65.1	B	125.	B	101.	B	61.5	B	132.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	19.7		27.		6.3		8.7		6.7		13.9	
7440-66-6	Zinc	264.	*	11.5	*	712.	*	448.	*	305.		34.3	
7440-31-5	Tin	9.5		3.1	B	26.2		12.3		8.8			
7439-97-6	Mercury	0.03		0.16		1.8		0.07		0.12		0.06	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META																			
	SAMPLE ID ------->	605-S-B010-02			605-S-B011-01			605-S-B011-02			605-C-B011-02			GDE-S-B001-01			GDE-C-B001-01		
	ORIGINAL ID ----->	605SB01002			605SB01101			605SB01102			605CB01102			GDESB00101			GDECB00101		
	LAB SAMPLE ID --->	23594.22			23594.17			23594.20			23593.01			23503.17			23502.01		
	ID FROM REPORT -->	605SB01002			605SB01101			605SB01102			605CB01102			GDESB00101			GDECB00101		
	SAMPLE DATE ----->	09/21/95			09/21/95			09/21/95			09/21/95			09/13/95			09/13/95		
	DATE EXTRACTED -->	09/25/95			09/25/95			09/25/95			09/28/95			09/17/95			09/17/95		
	DATE ANALYZED --->	10/06/95			10/06/95			10/06/95			10/07/95			10/01/95			10/01/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil			Soil			Soil		
	UNITS ---------->	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A	MG/KG		A
CAS #	Parameter	23593		NV	23593		NV	23593		NV	23593		NV	23502		NV	23502		NV
7429-90-5	Aluminum	6110.			2580.			12900.			2450.			20500.			11600.		
7440-36-0	Antimony	0.68	B		1.7	B		0.59	B		2.5	B					0.7	B	
7440-38-2	Arsenic	5.7			1.5			9.3			5.2			17.9			9.9		
7440-39-3	Barium	24.8	B		31.			39.3			18.5	B		30.9	N		20.9	B	
7440-41-7	Beryllium	0.49	B		0.94			0.72	B		0.2	B		1.2			0.54	B	
7440-43-9	Cadmium	0.33	B		0.23	B					0.25	B		0.74					
7440-70-2	Calcium	91400.		N*	9030.		N*	5930.		N*	8350.			10300.		N*	6000.		
7440-47-3	Chromium	19.6		N	54.7		N	25.9		N	38.1			32.4			18.3		
7440-48-4	Cobalt	2.8	B		6.1			3.7	B		1.8	B		6.5	B		4.	B	
7440-50-8	Copper	44.1		*	131.		*	11.1		*	77.3			28.2			14.1		
7439-89-6	Iron	8690.			5300.			14800.			14900.			26500.		*	15100.		
7439-92-1	Lead	68.6		N	177.		N	23.4		N	107.			57.3			36.		
7439-95-4	Magnesium	1990.			304.	B		2460.			236.	B		4390.			1780.		
7439-96-5	Manganese	147.			61.9			156.			100.			269.			118.		
7440-02-0	Nickel	12.3			33.			8.1			11.5			11.5			5.9		
7440-09-7	Potassium	1120.			250.	B		2220.			452.	B		2620.			1410.		
7782-49-2	Selenium							0.82											
7440-22-4	Silver				0.39	B													
7440-23-5	Sodium	509.	B		102.	B		330.	B		60.	B		358.	B		204.	B	
7440-28-0	Thallium																0.62	B	
7440-62-2	Vanadium	16.2			5.	B		31.1			13.			53.9			30.8		
7440-66-6	Zinc	211.			659.			70.			378.			113.			52.9		
7440-31-5	Tin	6.1	B		17.3			3.8	B					4.	B		3.9	B	
7439-97-6	Mercury	0.05												0.21	N		0.2		
57-12-5	Cyanide	??????????			??????????			??????????			??????????			??????????			??????????		
CN	Cyanide	??????????			??????????			??????????			??????????			??????????			??????????		

SW846-META													
	SAMPLE ID ------->	GDE-S-B001-02		GDE-S-B002-01		GDE-S-B002-02		GDE-C-B002-02		GDE-S-B003-01		GDE-S-B003-02	
	ORIGINAL ID ----->	GDESB00102		GDESB00201		GDESB00202		GDECB00202		GDESB00301		GDESB00302	
	LAB SAMPLE ID --->	23503.18		23503.19		23503.20		23502.02		23503.11		23503.14	
	ID FROM REPORT -->	GDESB00102		GDESB00201		GDESB00202		GDECB00202		GDESB00301		GDESB00302	
	SAMPLE DATE ----->	09/13/95		09/13/95		09/13/95		09/13/95		09/13/95		09/13/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/17/95		09/17/95	
	DATE ANALYZED --->	10/01/95		10/01/95		10/01/95		10/01/95		10/01/95		10/01/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23502	NV	23502	NV	23502	NV	23502	NV	23502	NV	23502	NV
7429-90-5	Aluminum	13700.		4430.		7670.		8020.		9360.		8170.	
7440-36-0	Antimony												
7440-38-2	Arsenic	13.1		2.6		6.3		4.7		14.8		7.7	
7440-39-3	Barium	22.8	BN	13.8	BN	23.9	BN	25.		76.1	N	44.1	N
7440-41-7	Beryllium	0.66	B	0.14	B	0.35	B	0.28	B	1.6		0.47	B
7440-43-9	Cadmium					0.49	B			1.1		0.92	
7440-70-2	Calcium	8110.	N*	30400.	N*	31800.	N*	17500.		28300.	N*	24400.	N*
7440-47-3	Chromium	22.3		22.8		15.		15.6		52.1		27.4	
7440-48-4	Cobalt	8.7		0.91	B	1.6	B	1.7	B	11.2		2.4	B
7440-50-8	Copper	26.		22.		22.		14.9		321.		121.	
7439-89-6	Iron	16600.	*	3960.	*	9280.	*	8200.		25100.	*	14400.	*
7439-92-1	Lead	54.		21.7		23.4		20.6		400.		173.	
7439-95-4	Magnesium	2110.		539.		1860.		1470.		1870.		1430.	
7439-96-5	Manganese	288.		64.5		65.9		48.4		170.		87.5	
7440-02-0	Nickel	9.1		2.9	B	7.8		4.9		62.8		14.6	
7440-09-7	Potassium	1680.		476.	B	1280.		1190.		1310.		1220.	
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium	254.	B	97.2	B	375.	B	323.	B	438.	B	359.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	34.1		8.5		17.1		18.		29.2		19.1	
7440-66-6	Zinc	82.9		41.3		57.		63.9		855.		302.	
7440-31-5	Tin	4.2	B	1.9	B	2.8	B	3.2	B	44.7		7.3	
7439-97-6	Mercury	0.14	N	0.03	N	0.21	N	0.13		2.7	N	0.9	N
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META															
	SAMPLE ID ------->	GDE-S-B005-01		GDE-S-B005-02		GDE-S-B008-01		GDE-S-B008-02		GDE-S-B009-01		GDE-C-B009-01	
	ORIGINAL ID ----->	GDESB00501		GDESB00502		GDESB00801		GDESB00802		GDESB00901		GDECB00901	
	LAB SAMPLE ID --->	23503.01		23503.04		23503.07		23503.10		23485.17		23484.03	
	ID FROM REPORT -->	GDESB00501		GDESB00502		GDESB00801		GDESB00802		GDESB00901		GDECB00901	
	SAMPLE DATE ----->	09/13/95		09/13/95		09/13/95		09/13/95		09/12/95		09/12/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/17/95		09/17/95	
	DATE ANALYZED --->	10/01/95		10/01/95		10/01/95		10/01/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23502	NV	23502	NV	23502	NV	23502	NV	23484	NV	23484	NV
7429-90-5	Aluminum	4930.		3480.		12200.		29900.		15100.		20000.	
7440-36-0	Antimony									0.65	B	0.56	B
7440-38-2	Arsenic	3.		22.6		23.9		21.3		17.		16.9	
7440-39-3	Barium	9.5	BN	17.8	BN	54.7	N	40.8	N	31.9		36.8	
7440-41-7	Beryllium	0.14	B	0.18	B	0.8		1.6		0.88		0.9	
7440-43-9	Cadmium					1.5							
7440-70-2	Calcium	8060.	N*	6180.	N*	9390.	N*	9710.	N*	27800.		19600.	
7440-47-3	Chromium	6.6		7.9		28.		46.7		29.1		33.1	
7440-48-4	Cobalt	0.95	B	9.4		4.4	B	7.5	B	4.6	B	4.7	B
7440-50-8	Copper	5.7		38.7		131.		42.8		28.2		23.3	
7439-89-6	Iron	6180.	*	3580.	*	16300.	*	35800.	*	20000.		21400.	
7439-92-1	Lead	5.5		40.3		142.		70.		74.4		61.9	
7439-95-4	Magnesium	467.	B	345.	B	2340.		4830.		3070.		3030.	
7439-96-5	Manganese	21.5		64.3		187.		478.		347.		257.	
7440-02-0	Nickel	2.2	B	5.2		14.2		14.8		11.		12.4	
7440-09-7	Potassium	753.		438.	B	1720.		3440.		2100.	E	2160.	
7782-49-2	Selenium					1.7						0.66	
7440-22-4	Silver					0.75	B						
7440-23-5	Sodium	81.6	B	91.2	B	302.	B	1180.		415.	B	383.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	11.3		6.9		32.6		71.4		41.7		42.2	
7440-66-6	Zinc	13.9		85.		344.		128.		104.		99.1	
7440-31-5	Tin	2.2	B	5.5		34.		5.	B	3.3	B	3.1	B
7439-97-6	Mercury	0.06	N	0.11	N	0.42	N	0.41	N	0.61		0.79	
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
	SAMPLE ID ------->	GDE-S-B009-02		GDE-S-B010-01		GDE-S-B010-02		GDE-C-B010-02		GDE-S-B012-01		GDE-S-B012-02	
	ORIGINAL ID ----->	GDESB00902		GDESB01001		GDESB01002		GDECB01002		GDESB01201		GDESB01202	
	LAB SAMPLE ID --->	23485.18		23485.15		23485.16		23484.02		23485.01		23485.02	
	ID FROM REPORT -->	GDESB00902		GDESB01001		GDESB01002		GDECB01002		GDESB01201		GDESB01202	
	SAMPLE DATE ----->	09/12/95		09/12/95		09/12/95		09/12/95		09/12/95		09/12/95	
	DATE EXTRACTED -->	09/17/95		09/17/95		09/17/95		09/17/95		09/17/95		09/17/95	
	DATE ANALYZED --->	09/26/95		09/26/95		09/26/95		09/26/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A	MG/KG	A
CAS #	Parameter	23484	NV	23484	NV	23484	NV	23484	NV	23484	NV	23484	NV
7429-90-5	Aluminum	4530.		6100.		16100.		27400.		8870.		3260.	
7440-36-0	Antimony			7.4		1.3	B	0.94	B				
7440-38-2	Arsenic	6.6		67.5		26.3		29.4		2.6		4.6	
7440-39-3	Barium	15.3	B	74.4		33.5	B	44.4		15.7	B	15.4	B
7440-41-7	Beryllium	0.66	B	0.93		1.1		1.3		0.35	B	0.65	
7440-43-9	Cadmium			0.79									
7440-70-2	Calcium	10700.		9820.		23000.		28500.		4830.		451.	B
7440-47-3	Chromium	12.1		90.1		43.1		84.8		10.3		6.8	
7440-48-4	Cobalt	3.5	B	8.5		12.7		9.9		2.5	B	1.4	B
7440-50-8	Copper	2.5	B	210.		42.4		82.9		7.3		1.3	B
7439-89-6	Iron	8110.		14300.		24200.		27900.		9050.		10600.	
7439-92-1	Lead	4.3		265.		80.6		66.5		6.		2.9	
7439-95-4	Magnesium	1160.		2320.		3580.		4980.		1620.		254.	B
7439-96-5	Manganese	89.7		150.		207.		236.		198.		38.9	
7440-02-0	Nickel	3.7	B	26.1		19.7		20.8		6.		1.3	B
7440-09-7	Potassium	1160.	E	1170.	E	2460.	E	2760.		926.	E	730.	E
7782-49-2	Selenium			0.89									
7440-22-4	Silver												
7440-23-5	Sodium	624.	B	310.	B	1040.		1130.		177.	B	209.	B
7440-28-0	Thallium												
7440-62-2	Vanadium	11.9		25.9		53.7		63.		13.7		9.6	
7440-66-6	Zinc	14.		786.		154.		170.		35.5		7.6	
7440-31-5	Tin	3.1	B	22.3		4.2	B	5.1	B	2.1	B	2.2	B
7439-97-6	Mercury			0.37		0.34		0.16					
57-12-5	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	
CN	Cyanide	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-META													
		SAMPLE ID ------->	GDE-S-B013-01			GDE-S-B013-02							
		ORIGINAL ID ----->	GDESB01301			GDESB01302							
		LAB SAMPLE ID --->	23485.03			23485.06							
		ID FROM REPORT -->	GDESB01301			GDESB01302							
		SAMPLE DATE ----->	09/12/95			09/12/95							
		DATE EXTRACTED -->	09/17/95			09/17/95							
		DATE ANALYZED --->	09/26/95			09/26/95							
		MATRIX ---------->	Soil			Soil							
		UNITS ---------->	MG/KG		A	MG/KG		A					
CAS #	Parameter		23484		NV	23484		NV					
7429-90-5	Aluminum		15100.			6100.							
7440-36-0	Antimony												
7440-38-2	Arsenic		4.1			2.9							
7440-39-3	Barium		22.			15.6	B						
7440-41-7	Beryllium		0.48	B		0.18	B						
7440-43-9	Cadmium												
7440-70-2	Calcium		11700.			1440.							
7440-47-3	Chromium		17.			9.							
7440-48-4	Cobalt		3.9	B		0.86	B						
7440-50-8	Copper		6.5			4.5							
7439-89-6	Iron		13400.			5040.							
7439-92-1	Lead		7.6			12.							
7439-95-4	Magnesium		1720.			392.	B						
7439-96-5	Manganese		232.			24.8							
7440-02-0	Nickel		8.5			2.7	B						
7440-09-7	Potassium		1020.	E		512.	BE						
7782-49-2	Selenium												
7440-22-4	Silver												
7440-23-5	Sodium		214.	B		200.	B						
7440-28-0	Thallium												
7440-62-2	Vanadium		25.			10.9							
7440-66-6	Zinc		54.4			14.8							
7440-31-5	Tin		2.6	B		2.3	B						
7439-97-6	Mercury					0.04							
57-12-5	Cyanide		??????????			??????????							
CN	Cyanide		??????????			??????????							

SW846-OP P													
	SAMPLE ID ------->	018-C-B005-01		018-C-B005-02		022-C-B001-01		023-C-B001-02		065-C-B005-01		065-C-B005-02	
	ORIGINAL ID ----->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	LAB SAMPLE ID --->	23626.01		23626.02		23447.01		23801.01		23663.01		23663.02	
	ID FROM REPORT -->	018CB00501		018CB00502		022CB00101		023CB00102		065CB00501		065CB00502	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		10/13/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/28/95		09/28/95		09/08/95		10/17/95		10/01/95		10/01/95	
	DATE ANALYZED --->	10/04/95		10/04/95		09/13/95		10/26/95		10/04/95		10/04/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23801	NV	23663	NV	23663	NV
298-02-2	Phorate												
298-04-4	Disulfoton												
298-00-0	Methyl parathion												

SW846-OP P																	
	SAMPLE ID ------->	067-C-B002-02		070-C-B001-01		087-C-B001-01		097-C-B003-01		172-C-B003-01		528-C-B003-02	
	ORIGINAL ID ----->	067CB00202		070CB00101		087CB00101		097CB00301		172CB00301		528CB00302	
	LAB SAMPLE ID --->	23801.02		23396.01		23458.02		23548.01		23458.01		23797.01	
	ID FROM REPORT -->	067CB00202		070CB00101		087CB00101		097CB00301		172CB00301		528CB00302	
	SAMPLE DATE ----->	10/13/95		08/31/95		09/08/95		09/18/95		09/08/95		10/12/95	
	DATE EXTRACTED -->	10/17/95		09/05/95		09/13/95		09/19/95		09/13/95		10/14/95	
	DATE ANALYZED --->	10/26/95		09/12/95		09/19/95		10/02/95		09/19/95		10/27/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23801	NV	23386	NV	23447	NV	23535	NV	23447	NV	23720	NV
298-02-2	Phorate												
298-04-4	Disulfoton												
298-00-0	Methyl parathion												

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-OP P							
	SAMPLE ID ------->	538-C-B008-02	540-C-B001-02	542-C-B006-02	543-C-B002-02	543-C-B003-02	543-C-B004-02
	ORIGINAL ID ----->	538CB00802	540CB00102	542CB00602	543CB00202	543CB00302	543CB00402
	LAB SAMPLE ID --->	23360.01	23387.03	23369.01	23797.02	23789.01	23387.04
	ID FROM REPORT -->	538CB00802	540CB00102	542CB00602	543CB00202	543CB00302	543CB00402
	SAMPLE DATE ----->	08/28/95	08/30/95	08/30/95	10/12/95	10/11/95	08/30/95
	DATE EXTRACTED -->	08/30/95	09/01/95	09/01/95	10/14/95	10/14/95	09/01/95
	DATE ANALYZED --->	09/11/95	09/12/95	09/11/95	10/27/95	10/27/95	09/12/95
	MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
	UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS #	Parameter	23359 NV	23386 NV	23359 NV	23720 NV	23720 NV	23386 NV
298-02-2	Phorate						
298-04-4	Disulfoton						
298-00-0	Methyl parathion						

SW846-OP P																	
	SAMPLE ID ------->	551-C-B002-01		551-C-B006-01		573-C-B002-01		573-C-B003-02		573-C-B005-02		576-C-B003-01	
	ORIGINAL ID ----->	551CB00201		551CB00601		573CB00201		573CB00302		573CB00502		576CB00301	
	LAB SAMPLE ID --->	23704.01		23704.02		23471.01		23471.02		23471.03		23437.02	
	ID FROM REPORT -->	551CB00201		551CB00601		573CB00201		573CB00302		573CB00502		576CB00301	
	SAMPLE DATE ----->	09/29/95		09/29/95		09/11/95		09/11/95		09/11/95		09/06/95	
	DATE EXTRACTED -->	10/06/95		10/06/95		09/13/95		09/13/95		09/13/95		09/08/95	
	DATE ANALYZED --->	10/17/95		10/17/95		09/19/95		09/19/95		09/19/95		09/12/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23704	NV	23704	NV	23471	NV	23471	NV	23471	NV	23424	NV
298-02-2	Phorate												
298-04-4	Disulfoton												
298-00-0	Methyl parathion												

SW846-OP P																	
	SAMPLE ID ------->	579-C-B004-01		580-C-B002-01		583-C-B006-01		598-C-B002-02		599-C-B005-02		605-C-B010-01	
	ORIGINAL ID ----->	579CB00401		580CB00201		583CB00601		598CB00202		599CB00502		605CB01001	
	LAB SAMPLE ID --->	23484.01		23523.01		23535.01		23560.01		23574.01		23593.02	
	ID FROM REPORT -->	579CB00401		580CB00201		583CB00601		598CB00202		599CB00502		605CB01001	
	SAMPLE DATE ----->	09/12/95		09/14/95		09/15/95		09/19/95		09/20/95		09/21/95	
	DATE EXTRACTED -->	09/15/95		09/18/95		09/19/95		09/20/95		09/22/95		09/26/95	
	DATE ANALYZED --->	09/20/95		09/20/95		10/02/95		10/03/95		10/03/95		10/04/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23484	NV	23502	NV	23535	NV	23560	NV	23560	NV	23593	NV
298-02-2	Phorate												
298-04-4	Disulfoton												
298-00-0	Methyl parathion												

SW846-OP P						
SAMPLE ID ------->	605-C-B011-02	GDE-C-B001-01	GDE-C-B002-02	GDE-C-B009-01	GDE-C-B010-02	
ORIGINAL ID ----->	605CB01102	GDECB00101	GDECB00202	GDECB00901	GDECB01002	
LAB SAMPLE ID --->	23593.01	23502.01	23502.02	23484.03	23484.02	
ID FROM REPORT -->	605CB01102	GDECB00101	GDECB00202	GDECB00901	GDECB01002	
SAMPLE DATE ----->	09/21/95	09/13/95	09/13/95	09/12/95	09/12/95	
DATE EXTRACTED -->	09/26/95	09/15/95	09/15/95	09/15/95	09/15/95	
DATE ANALYZED --->	10/04/95	09/20/95	09/20/95	09/20/95	09/20/95	
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	
CAS # Parameter	23593 NV	23502 NV	23502 NV	23484 NV	23484 NV	
298-02-2 Phorate						
298-04-4 Disulfoton						
298-00-0 Methyl parathion						

SW846-PEST													
	SAMPLE ID ------->	005-S-B001-01		005-S-B001-02		005-S-B002-01		005-S-B002-02		005-S-B003-01		005-S-B003-02	
	ORIGINAL ID ----->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	LAB SAMPLE ID --->	23627.15		23627.19		23627.16		23627.20		23596.07		23596.08	
	ID FROM REPORT -->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		09/25/95		09/22/95		09/22/95	
	DATE EXTRACTED -->	09/26/95		09/26/95		09/26/95		09/26/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/05/95		10/05/95		10/05/95		10/05/95		10/09/95		10/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23626	NV	23593	NV	23593	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE					4.9				3.23			
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT					31.2				14.2			
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone									7.02			
7421-93-4	Endrin aldehyde									12.5			
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	1.44		??????????				??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST							
SAMPLE ID ------->	018-S-B001-01	018-S-B002-01	018-S-B002-02	018-S-B003-01	018-S-B003-02	018-S-B004-01
ORIGINAL ID ----->	018SB00101	018SB00201	018SB00202	018SB00301	018SB00302	018SB00401
LAB SAMPLE ID --->	23627.12	23627.06	23627.07	23720.01	23720.02	23627.11
ID FROM REPORT -->	018SB00101	018SB00201	018SB00202	018SB00301	018SB00302	018SB00401
SAMPLE DATE ----->	09/25/95	09/25/95	09/25/95	10/03/95	10/03/95	09/25/95
DATE EXTRACTED -->	09/26/95	09/26/95	09/26/95	10/06/95	10/06/95	09/26/95
DATE ANALYZED --->	10/05/95	10/05/95	10/05/95	10/13/95	10/13/95	10/05/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23626 NV	23626 NV	23626 NV	23720 NV	23720 NV	23626 NV
319-84-6 alpha-BHC					11.	
319-85-7 beta-BHC						
319-86-8 delta-BHC						
58-89-9 gamma-BHC (Lindane)						
76-44-8 Heptachlor						
309-00-2 Aldrin					2.7	
1024-57-3 Heptachlor epoxide					1.7	
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE	3.42				8.8	3.04
60-57-1 Dieldrin	3.04					
72-20-8 Endrin						
33213-65-9 Endosulfan II					3.9	
72-54-8 4,4'-DDD					6.	
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT	17.5				4.6	20.7
72-43-5 Methoxychlor						
5103-71-9 alpha-Chlordane					??????????	
5103-74-2 gamma-Chlordane					??????????	
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	??????????	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	328.	??????????	??????????	26.	??????????

SW846-PEST							
SAMPLE ID ------->	018-S-B005-01	018-S-B005-02	022-S-B001-01	022-S-B001-02	022-S-B002-01	022-S-B002-02
ORIGINAL ID ----->	018SB00501	018SB00502	022SB00101	022SB00102	022SB00201	022SB00202
LAB SAMPLE ID --->	23627.13	23627.14	23448.01	23448.02	23448.03	23448.04
ID FROM REPORT -->	018SB00501	018SB00502	022SB00101	022SB00102	022SB00201	022SB00202
SAMPLE DATE ----->	09/25/95	09/25/95	09/07/95	09/07/95	09/07/95	09/07/95
DATE EXTRACTED -->	09/26/95	09/26/95	09/08/95	09/08/95	09/08/95	09/08/95
DATE ANALYZED --->	10/05/95	10/05/95	09/26/95	09/26/95	09/26/95	09/26/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23626 NV	23626 NV	23447 NV	23447 NV	23447 NV	23447 NV
319-84-6 alpha-BHC						
319-85-7 beta-BHC						
319-86-8 delta-BHC						
58-89-9 gamma-BHC (Lindane)						
76-44-8 Heptachlor						
309-00-2 Aldrin						
1024-57-3 Heptachlor epoxide						
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE	9.45					
60-57-1 Dieldrin	6.96					6.7
72-20-8 Endrin						
33213-65-9 Endosulfan II						
72-54-8 4,4'-DDD						
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT	24.5		3.4			7.7
72-43-5 Methoxychlor						
5103-71-9 alpha-Chlordane						
5103-74-2 gamma-Chlordane						3.
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	114.	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	1.6	??????????	??????????	??????????	??????????

SW846-PEST													
	SAMPLE ID ------->	023-S-B001-01		023-S-B001-02		023-S-B002-01		023-S-B002-02		023-S-B003-01		063-S-B001-01	
	ORIGINAL ID ----->	023SB00101		023SB00102		023SB00201		023SB00202		023SB00301		063SB00101	
	LAB SAMPLE ID --->	23802.19		23802.20		23802.21		23802.22		23386.01		23386.04	
	ID FROM REPORT -->	023SB00101		023SB00102		023SB00201		023SB00202		023SB00301		063SB00101	
	SAMPLE DATE ----->	10/13/95		10/13/95		10/13/95		10/13/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/17/95		10/17/95		10/17/95		10/17/95		09/01/95		09/01/95	
	DATE ANALYZED --->	10/26/95		10/26/95		10/26/95		10/26/95		09/08/95		09/08/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23801	NV	23801	NV	23801	NV	23801	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT					4.4							
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane									1.6	P		
5103-74-2	gamma-Chlordane									3.2			
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST																	
	SAMPLE ID ------->	063-S-B001-02			063-S-B002-01			063-S-B002-02			063-S-B003-01			063-S-B003-02			065-S-B003-01		
	ORIGINAL ID ----->	063SB00102			063SB00201			063SB00202			063SB00301			063SB00302			065SB00301		
	LAB SAMPLE ID --->	23386.05			23386.06			23386.07			23386.08			23386.09			23664.13		
	ID FROM REPORT -->	063SB00102			063SB00201			063SB00202			063SB00301			063SB00302			065SB00301		
	SAMPLE DATE ----->	08/30/95			08/30/95			08/30/95			08/30/95			08/30/95			09/27/95		
	DATE EXTRACTED -->	09/01/95			09/01/95			09/01/95			09/01/95			09/01/95			10/01/95		
	DATE ANALYZED --->	09/08/95			09/08/95			09/08/95			09/08/95			09/09/95			10/10/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil			Soil			Soil		
	UNITS ---------->	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A
CAS #	Parameter	23386		NV	23386		NV	23386		NV	23386		NV	23386		NV	23663		NV
319-84-6	alpha-BHC																		
319-85-7	beta-BHC																		
319-86-8	delta-BHC																		
58-89-9	gamma-BHC (Lindane)																		
76-44-8	Heptachlor				1.8			3.4						2.	P				
309-00-2	Aldrin																		
1024-57-3	Heptachlor epoxide																		
959-98-8	Endosulfan I																		
72-55-9	4,4'-DDE	9.3			14.	P													
60-57-1	Dieldrin																		
72-20-8	Endrin																		
33213-65-9	Endosulfan II																		
72-54-8	4,4'-DDD	4.7	P																
1031-07-8	Endosulfan sulfate																		
50-29-3	4,4'-DDT							7.4	P					6.1					
72-43-5	Methoxychlor																		
5103-71-9	alpha-Chlordane	11.	P		50.	PE		26.	PE		1.5	P		18.	P				
5103-74-2	gamma-Chlordane	20.			65.	E		31.	E					24.					
53494-70-5	Endrin ketone																		
7421-93-4	Endrin aldehyde																		
8001-35-2	Toxaphene																		
12674-11-2	Aroclor-1016																		
11104-28-2	Aroclor-1221																		
11141-16-5	Aroclor-1232																		
53469-21-9	Aroclor-1242																		
12672-29-6	Aroclor-1248																		
11097-69-1	Aroclor-1254																		
11096-82-5	Aroclor-1260																		
9999000-33-9		??????????			??????????			??????????			??????????			??????????			??????????		
12789-03-6	Technical Chlordane	??????????			??????????			??????????			??????????			??????????			??????????		

SW846-PEST															
	SAMPLE ID ------->	065-S-B003-02		065-S-B004-01		065-S-B005-01		065-S-B005-02		065-S-B006-01		065-S-B006-02	
	ORIGINAL ID ----->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	LAB SAMPLE ID --->	23664.16		23664.17		23664.18		23664.19		23681.07		23681.10	
	ID FROM REPORT -->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/27/95		09/27/95		09/28/95		09/28/95	
	DATE EXTRACTED -->	10/01/95		10/01/95		10/01/95		10/01/95		10/02/95		10/02/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/10/95		10/11/95		10/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin					22.						6.17	
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane					9.6							
5103-74-2	gamma-Chlordane					11.							
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	070-S-B001-01		070-S-B001-02		070-S-B002-01		070-S-B002-02		070-S-B003-01		070-S-B003-02	
	ORIGINAL ID ----->	070SB00101		070SB00102		070SB00201		070SB00202		070SB00301		070SB00302	
	LAB SAMPLE ID --->	23397.01		23397.02		23397.03		23397.06		23397.07		23397.08	
	ID FROM REPORT -->	070SB00101		070SB00102		070SB00201		070SB00202		070SB00301		070SB00302	
	SAMPLE DATE ----->	08/31/95		08/31/95		08/31/95		08/31/95		08/31/95		08/31/95	
	DATE EXTRACTED -->	09/05/95		09/05/95		09/05/95		09/05/95		09/05/95		09/05/95	
	DATE ANALYZED --->	09/20/95		09/20/95		09/20/95		09/20/95		09/20/95		09/20/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC									4.8			
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane	4.	P										
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde					2.7	P						
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	070-S-B004-01		070-S-B004-02		087-S-B001-01		087-S-B001-02		097-S-B001-01		097-S-B001-02	
	ORIGINAL ID ----->	070SB00401		070SB00402		087SB00101		087SB00102		097SB00101		097SB00102	
	LAB SAMPLE ID --->	23397.09		23397.10		23459.24		23459.25		23549.05		23549.06	
	ID FROM REPORT -->	070SB00401		070SB00402		087SB00101		087SB00102		097SB00101		097SB00102	
	SAMPLE DATE ----->	08/31/95		08/31/95		09/08/95		09/08/95		09/18/95		09/18/95	
	DATE EXTRACTED -->	09/05/95		09/05/95		09/11/95		09/11/95		09/19/95		09/19/95	
	DATE ANALYZED --->	09/20/95		09/20/95		09/25/95		09/25/95		09/27/95		09/27/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23447	NV	23447	NV	23535	NV	23535	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC	2.3				1.7	P						
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE	2.7	P	6.9	P								
60-57-1	Dieldrin					220.	E						
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD					70.	E						
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT					41.	P						
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane					32.	E			2.68			
5103-74-2	gamma-Chlordane					28.	E			6.41			
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST													
	SAMPLE ID ------->	097-S-B002-01		097-S-B002-02		097-S-B003-01		097-S-B003-02		100-S-B001-01		100-S-B001-02	
	ORIGINAL ID ----->	097SB00201		097SB00202		097SB00301		097SB00302		100SB00101		100SB00102	
	LAB SAMPLE ID --->	23549.09		23549.10		23549.16		23549.13		23664.01		23664.04	
	ID FROM REPORT -->	097SB00201		097SB00202		097SB00301		097SB00302		100SB00101		100SB00102	
	SAMPLE DATE ----->	09/18/95		09/18/95		09/18/95		09/18/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/19/95		09/19/95		09/19/95		09/19/95		10/01/95		10/01/95	
	DATE ANALYZED --->	09/27/95		09/27/95		09/27/95		09/27/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23535	NV	23535	NV	23535	NV	23535	NV	23663	NV	23663	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor					1.83							
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane					16.4							
5103-74-2	gamma-Chlordane					46.3	E						
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST							
SAMPLE ID ------->	100-S-B002-01	100-S-B002-02	100-S-B003-01	100-S-B003-02	106-S-B001-01	106-S-B001-02
ORIGINAL ID ----->	100SB00201	100SB00202	100SB00301	100SB00302	106SB00101	106SB00102
LAB SAMPLE ID --->	23664.05	23664.08	23664.09	23664.12	23720.03	23720.04
ID FROM REPORT -->	100SB00201	100SB00202	100SB00301	100SB00302	106SB00101	106SB00102
SAMPLE DATE ----->	09/27/95	09/27/95	09/27/95	09/27/95	10/03/95	10/03/95
DATE EXTRACTED -->	10/01/95	10/01/95	10/01/95	10/01/95	10/06/95	10/06/95
DATE ANALYZED --->	10/10/95	10/10/95	10/10/95	10/10/95	10/13/95	10/13/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23663 NV	23663 NV	23663 NV	23663 NV	23720 NV	23720 NV
319-84-6 alpha-BHC						
319-85-7 beta-BHC						
319-86-8 delta-BHC						
58-89-9 gamma-BHC (Lindane)						
76-44-8 Heptachlor						
309-00-2 Aldrin						
1024-57-3 Heptachlor epoxide						
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE						
60-57-1 Dieldrin						
72-20-8 Endrin						
33213-65-9 Endosulfan II						
72-54-8 4,4'-DDD						
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT						
72-43-5 Methoxychlor						
5103-71-9 alpha-Chlordane						
5103-74-2 gamma-Chlordane						
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	??????????	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	??????????	??????????	??????????	??????????	??????????

SW846-PEST							
SAMPLE ID ------->	106-S-B002-01	106-S-B002-02	106-S-B003-01	106-S-B003-02	172-S-B001-01	172-S-B001-02
ORIGINAL ID ----->	106SB00201	106SB00202	106SB00301	106SB00302	172SB00101	172SB00102
LAB SAMPLE ID --->	23594.07	23594.08	23594.01	23594.04	23459.19	23459.20
ID FROM REPORT -->	106SB00201	106SB00202	106SB00301	106SB00302	172SB00101	172SB00102
SAMPLE DATE ----->	09/21/95	09/21/95	09/21/95	09/21/95	09/08/95	09/08/95
DATE EXTRACTED -->	09/25/95	09/25/95	09/25/95	09/25/95	09/11/95	09/11/95
DATE ANALYZED --->	10/04/95	10/04/95	10/04/95	10/04/95	09/23/95	09/23/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23593 NV	23593 NV	23593 NV	23593 NV	23447 NV	23447 NV
319-84-6 alpha-BHC				8.39		
319-85-7 beta-BHC						
319-86-8 delta-BHC				29.		
58-89-9 gamma-BHC (Lindane)				5.74		
76-44-8 Heptachlor						
309-00-2 Aldrin						
1024-57-3 Heptachlor epoxide				6.25		
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE						
60-57-1 Dieldrin						
72-20-8 Endrin						
33213-65-9 Endosulfan II						
72-54-8 4,4'-DDD						
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT						
72-43-5 Methoxychlor						
5103-71-9 alpha-Chlordane						
5103-74-2 gamma-Chlordane				8.36		
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	??????????	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	??????????	??????????	??????????	??????????	??????????

SW846-PEST																	
	SAMPLE ID ------->	172-S-B002-01		172-S-B002-02		172-S-B003-01		172-S-B003-02		172-S-B004-01		172-S-B004-02	
	ORIGINAL ID ----->	172SB00201		172SB00202		172SB00301		172SB00302		172SB00401		172SB00402	
	LAB SAMPLE ID --->	23474.01		23474.02		23459.22		23459.23		23459.15		23459.18	
	ID FROM REPORT -->	172SB00201		172SB00202		172SB00301		172SB00302		172SB00401		172SB00402	
	SAMPLE DATE ----->	09/09/95		09/09/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE EXTRACTED -->	09/14/95		09/14/95		09/11/95		09/11/95		09/11/95		09/11/95	
	DATE ANALYZED --->	09/24/95		09/24/95		09/23/95		09/23/95		09/23/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23474	NV	23474	NV	23447	NV	23447	NV	23447	NV	23447	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE	8.7	P			33.							
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD					13.							
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane					2.1	P						
5103-74-2	gamma-Chlordane					1.9	P						
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	172-S-B005-01		172-S-B005-02		172-S-B006-01		172-S-B006-02		172-M-X002-01		173-S-B001-01	
	ORIGINAL ID ----->	172SB00501		172SB00502		172SB00601		172SB00602		172MX00201		173SB00101	
	LAB SAMPLE ID --->	23459.13		23459.14		23459.09		23459.10		23627.01		23798.01	
	ID FROM REPORT -->	172SB00501		172SB00502		172SB00601		172SB00602		172MX00201		173SB00101	
	SAMPLE DATE ----->	09/08/95		09/08/95		09/08/95		09/08/95		09/23/95		10/12/95	
	DATE EXTRACTED -->	09/11/95		09/11/95		09/11/95		09/11/95		09/26/95		10/16/95	
	DATE ANALYZED --->	09/23/95		09/23/95		09/22/95		09/22/95		10/05/95		10/29/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Sediment		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23447	NV	23626	NV	23720	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE									26.1			
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD	15.	P										
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde									35.3			
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	173-S-B001-02		173-S-B002-01		173-S-B002-02		173-M-0001-01		173-M-0002-01		173-M-0003-01	
	ORIGINAL ID ----->	173SB00102		173SB00201		173SB00202		173M000101		173M000201		173M000301	
	LAB SAMPLE ID --->	23798.04		23798.05		23798.06		23798.07		23798.08		23798.09	
	ID FROM REPORT -->	173SB00102		173SB00201		173SB00202		173M000101		173M000201		173M000301	
	SAMPLE DATE ----->	10/12/95		10/12/95		10/12/95		10/12/95		10/12/95		10/12/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		10/16/95		10/16/95		10/16/95		10/16/95	
	DATE ANALYZED --->	10/29/95		10/29/95		10/29/95		10/29/95		10/29/95		10/29/95	
	MATRIX ---------->	Soil		Soil		Soil		Sediment		Sediment		Sediment	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23720	NV	23720	NV	23720	NV	23720	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE							5.1		3.6			
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD							8.5					
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT							8.2					
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane									2.1		2.	
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260									110.		110.	
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	528-S-B002-01		528-S-B002-02		539-M-0001-01		540-S-B001-01		540-S-B001-02		541-S-B001-01	
	ORIGINAL ID ----->	528SB00201		528SB00202		539M000101		540SB00101		540SB00102		541SB00101	
	LAB SAMPLE ID --->	23798.16		23798.17		23448.08		23386.11		23386.14		23386.15	
	ID FROM REPORT -->	528SB00201		528SB00202		539M000101		540SB00101		540SB00102		541SB00101	
	SAMPLE DATE ----->	10/12/95		10/12/95		09/07/95		08/30/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		09/08/95		09/01/95		09/01/95		09/01/95	
	DATE ANALYZED --->	10/29/95		10/29/95		09/26/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Sediment		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23447	NV	23386	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor							87.	E	4.			
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide							6.6	P				
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE									4.8			
60-57-1	Dieldrin					480.	PE	9.9	P				
72-20-8	Endrin					170.	P						
33213-65-9	Endosulfan II					160.	P						
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane	??????????		??????????				61.	PE	3.8	P		
5103-74-2	gamma-Chlordane	??????????		??????????				120.	E	6.8	P		
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde					460.	PE						
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	67.		54.		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	542-S-B001-01		542-S-B001-02		542-S-B002-01		542-S-B002-02		542-S-B003-01		542-S-B003-02	
	ORIGINAL ID ----->	542SB00101		542SB00102		542SB00201		542SB00202		542SB00301		542SB00302	
	LAB SAMPLE ID --->	23370.05		23370.06		23370.07		23370.08		23386.16		23386.17	
	ID FROM REPORT -->	542SB00101		542SB00102		542SB00201		542SB00202		542SB00301		542SB00302	
	SAMPLE DATE ----->	08/29/95		08/29/95		08/29/95		08/29/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	08/30/95		08/30/95		08/30/95		08/30/95		09/01/95		09/01/95	
	DATE ANALYZED --->	09/09/95		09/09/95		09/09/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23359	NV	23359	NV	23359	NV	23359	NV	23386	NV	23386	NV
319-84-6	alpha-BHC							3.3					
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)					1.4	P						
76-44-8	Heptachlor	1.4				2.5				2.5			
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE					6.7	P						
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT					16.							
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane									15.	P		
5103-74-2	gamma-Chlordane									19.			
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde											17.	P
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254					190.	P						
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	542-S-B004-01		542-S-B005-01		542-S-B005-02		542-S-B006-01		542-S-B006-02		542-S-B007-01	
	ORIGINAL ID ----->	542SB00401		542SB00501		542SB00502		542SB00601		542SB00602		542SB00701	
	LAB SAMPLE ID --->	23386.20		23370.09		23370.10		23370.11		23370.15		23386.21	
	ID FROM REPORT -->	542SB00401		542SB00501		542SB00502		542SB00601		542SB00602		542SB00701	
	SAMPLE DATE ----->	08/30/95		08/29/95		08/29/95		08/29/95		08/29/95		08/30/95	
	DATE EXTRACTED -->	09/01/95		08/30/95		08/30/95		08/30/95		08/30/95		09/01/95	
	DATE ANALYZED --->	09/09/95		09/09/95		09/09/95		09/09/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23359	NV	23359	NV	23359	NV	23359	NV	23386	NV
319-84-6	alpha-BHC							5.4					
319-85-7	beta-BHC							4.	P				
319-86-8	delta-BHC							3.4	P				
58-89-9	gamma-BHC (Lindane)							5.1					
76-44-8	Heptachlor			1.7		1.5		7.2					
309-00-2	Aldrin							8.8	P				
1024-57-3	Heptachlor epoxide							5.9	P				
959-98-8	Endosulfan I							5.1	P				
72-55-9	4,4'-DDE			74.	E			31.	P			12.	P
60-57-1	Dieldrin							5.2	P				
72-20-8	Endrin							11.	P				
33213-65-9	Endosulfan II							5.9	P				
72-54-8	4,4'-DDD			4.	P			4.3	P			5.7	P
1031-07-8	Endosulfan sulfate							5.1					
50-29-3	4,4'-DDT			48.				92.	E				
72-43-5	Methoxychlor							22.					
5103-71-9	alpha-Chlordane	14.	P	4.1				7.9	P			43.	PE
5103-74-2	gamma-Chlordane	21.		4.7	P			11.	P			60.	PE
53494-70-5	Endrin ketone							3.1	P				
7421-93-4	Endrin aldehyde			3.9	P	4.7	P	15.	P				
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254							1200.	P				
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST													
	SAMPLE ID ------->	543-S-B001-01		543-S-B001-02		543-S-B003-01		543-S-B003-02		543-S-B004-01		543-S-B004-02	
	ORIGINAL ID ----->	543SB00101		543SB00102		543SB00301		543SB00302		543SB00401		543SB00402	
	LAB SAMPLE ID --->	23785.05		23785.06		23785.01		23785.04		23386.22		23386.23	
	ID FROM REPORT -->	543SB00101		543SB00102		543SB00301		543SB00302		543SB00401		543SB00402	
	SAMPLE DATE ----->	10/11/95		10/11/95		10/11/95		10/11/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/16/95		10/16/95		10/16/95		10/16/95		09/01/95		09/01/95	
	DATE ANALYZED --->	10/26/95		10/26/95		10/26/95		10/26/95		09/09/95		09/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23720	NV	23720	NV	23720	NV	23720	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC									11.		12.	
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor	3.7								65.	E	3.5	P
309-00-2	Aldrin	1.8											
1024-57-3	Heptachlor epoxide	2.5								19.	P	2.9	
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE	7.5								18.	P	12.	P
60-57-1	Dieldrin	8.6										4.5	P
72-20-8	Endrin	5.3											
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD											4.9	P
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT	7.6		3.3						4.5			
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane	??????????		??????????		??????????				99.	PE	32.	PE
5103-74-2	gamma-Chlordane	??????????		??????????		??????????				160.	PE	48.	E
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	680.		30.		46.		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	544-S-B001-01		544-S-B001-02		544-S-B002-01		544-S-B002-02		544-S-B003-01		544-S-B003-02	
	ORIGINAL ID ----->	544SB00101		544SB00102		544SB00201		544SB00202		544SB00301		544SB00302	
	LAB SAMPLE ID --->	23681.15		23681.16		23681.11		23681.14		23705.01		23705.04	
	ID FROM REPORT -->	544SB00101		544SB00102		544SB00201		544SB00202		544SB00301		544SB00302	
	SAMPLE DATE ----->	09/28/95		09/28/95		09/28/95		09/28/95		09/29/95		09/29/95	
	DATE EXTRACTED -->	10/02/95		10/02/95		10/02/95		10/02/95		10/05/95		10/05/95	
	DATE ANALYZED --->	10/10/95		10/11/95		10/11/95		10/11/95		10/13/95		10/13/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23704	NV	23704	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC			2.8		11.7							
319-86-8	delta-BHC	96.		5.3		2.41		8.64				2.52	
58-89-9	gamma-BHC (Lindane)	9.54	J										
76-44-8	Heptachlor			1.7									
309-00-2	Aldrin	345.	E					2.38				1.61	J
1024-57-3	Heptachlor epoxide	19.		5.3		2.86						2.03	
959-98-8	Endosulfan I			5.2									
72-55-9	4,4'-DDE			5.1		10.5		10.3		2.97			
60-57-1	Dieldrin	524.	E	29.		121.	E	14.4		15.1		33.2	
72-20-8	Endrin			5.2		4.91							
33213-65-9	Endosulfan II	9.01	J										
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	
5103-74-2	gamma-Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde	4.73	J										
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	12300.	E	521.		1240.		47.8		43.		132.	

SW846-PEST													
	SAMPLE ID ------->	544-S-B004-01		544-S-B004-02		548-S-B001-01		548-S-B001-02		548-S-B002-01		548-S-B002-02	
	ORIGINAL ID ----->	544SB00401		544SB00402		548SB00101		548SB00102		548SB00201		548SB00202	
	LAB SAMPLE ID --->	23664.14		23664.15		23408.01		23408.04		23424.01		23424.02	
	ID FROM REPORT -->	544SB00401		544SB00402		548SB00101		548SB00102		548SB00201		548SB00202	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/01/95		09/01/95		09/05/95		09/05/95	
	DATE EXTRACTED -->	10/01/95		10/01/95		09/06/95		09/06/95		09/07/95		09/07/95	
	DATE ANALYZED --->	10/10/95		10/10/95		09/15/95		09/15/95		09/14/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23386	NV	23386	NV	23424	NV	23424	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde									4.2	P	3.8	P
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	548-S-B003-01		548-S-B003-02		548-S-B004-01		548-S-B004-02		549-S-B001-01		549-S-B001-02	
	ORIGINAL ID ----->	548SB00301		548SB00302		548SB00401		548SB00402		549SB00101		549SB00102	
	LAB SAMPLE ID --->	23424.03		23424.06		23424.07		23424.08		23408.06		23408.07	
	ID FROM REPORT -->	548SB00301		548SB00302		548SB00401		548SB00402		549SB00101		549SB00102	
	SAMPLE DATE ----->	09/05/95		09/05/95		09/05/95		09/05/95		09/01/95		09/01/95	
	DATE EXTRACTED -->	09/07/95		09/07/95		09/07/95		09/07/95		09/06/95		09/06/95	
	DATE ANALYZED --->	09/14/95		09/15/95		09/15/95		09/15/95		09/15/95		09/15/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23424	NV	23424	NV	23424	NV	23424	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE									51.	E		
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II									3.9	P		
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT									40.	P		
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane									5.4			
5103-74-2	gamma-Chlordane									4.9			
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde	2.6	P	4.2		3.3		2.7					
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST																	
	SAMPLE ID ------->	549-S-B002-01			549-S-B002-02			549-S-B003-01			549-S-B003-02			549-S-B004-01			549-S-B004-02		
	ORIGINAL ID ----->	549SB00201			549SB00202			549SB00301			549SB00302			549SB00401			549SB00402		
	LAB SAMPLE ID --->	23397.12			23397.13			23397.14			23397.15			23424.10			23424.11		
	ID FROM REPORT -->	549SB00201			549SB00202			549SB00301			549SB00302			549SB00401			549SB00402		
	SAMPLE DATE ----->	08/31/95			08/31/95			08/31/95			08/31/95			09/05/95			09/05/95		
	DATE EXTRACTED -->	09/05/95			09/05/95			09/05/95			09/05/95			09/07/95			09/07/95		
	DATE ANALYZED --->	09/20/95			09/20/95			09/20/95			09/20/95			09/15/95			09/15/95		
	MATRIX ---------->	Soil			Soil			Soil			Soil			Soil			Soil		
	UNITS ---------->	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A	UG/KG		A
CAS #	Parameter	23386		NV	23386		NV	23386		NV	23386		NV	23424		NV	23424		NV
319-84-6	alpha-BHC																		
319-85-7	beta-BHC																		
319-86-8	delta-BHC				4.			1.9	P										
58-89-9	gamma-BHC (Lindane)																		
76-44-8	Heptachlor																		
309-00-2	Aldrin																		
1024-57-3	Heptachlor epoxide	1.7																	
959-98-8	Endosulfan I																		
72-55-9	4,4'-ODE										14.								
60-57-1	Dieldrin																		
72-20-8	Endrin																		
33213-65-9	Endosulfan II	3.9	P																
72-54-8	4,4'-DDD																		
1031-07-8	Endosulfan sulfate																		
50-29-3	4,4'-DDT	6.7	P																
72-43-5	Methoxychlor				36.	P													
5103-71-9	alpha-Chlordane																		
5103-74-2	gamma-Chlordane							4.8	P										
53494-70-5	Endrin ketone																		
7421-93-4	Endrin aldehyde	2.7	P											3.8	P		3.3	P	
8001-35-2	Toxaphene																		
12674-11-2	Aroclor-1016																		
11104-28-2	Aroclor-1221																		
11141-16-5	Aroclor-1232																		
53469-21-9	Aroclor-1242																		
12672-29-6	Aroclor-1248																		
11097-69-1	Aroclor-1254																		
11096-82-5	Aroclor-1260																		
9999000-33-9		??????????			??????????			??????????			??????????			??????????			??????????		
12789-03-6	Technical Chlordane	??????????			??????????			??????????			??????????			??????????			??????????		

SW846-PEST													
	SAMPLE ID ------->	549-S-B005-01		549-S-B006-01		549-S-B006-02		549-S-B007-01		549-S-B007-02		549-S-B008-01	
	ORIGINAL ID ----->	549SB00501		549SB00601		549SB00602		549SB00701		549SB00702		549SB00801	
	LAB SAMPLE ID --->	23424.09		23397.16		23397.17		23408.08		23408.09		23397.18	
	ID FROM REPORT -->	549SB00501		549SB00601		549SB00602		549SB00701		549SB00702		549SB00801	
	SAMPLE DATE ----->	09/05/95		08/31/95		08/31/95		09/01/95		09/01/95		08/31/95	
	DATE EXTRACTED -->	09/07/95		09/05/95		09/05/95		09/06/95		09/06/95		09/05/95	
	DATE ANALYZED --->	09/15/95		09/20/95		09/21/95		09/15/95		09/15/95		09/21/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23424	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE					8.9						3.3	P
60-57-1	Dieldrin												
72-20-8	Endrin	4.3	P										
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT											13.	
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane											2.8	P
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde	5.5	P										
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST													
	SAMPLE ID ------->	549-S-B008-02		549-S-B009-01		549-S-B009-02		549-S-B010-01		549-S-B010-02		554-S-B001-01	
	ORIGINAL ID ----->	549SB00802		549SB00901		549SB00902		549SB01001		549SB01002		554SB00101	
	LAB SAMPLE ID --->	23397.21		23408.10		23408.11		23408.12		23408.13		23448.09	
	ID FROM REPORT -->	549SB00802		549SB00901		549SB00902		549SB01001		549SB01002		554SB00101	
	SAMPLE DATE ----->	08/31/95		09/01/95		09/01/95		09/01/95		09/01/95		09/07/95	
	DATE EXTRACTED -->	09/05/95		09/06/95		09/06/95		09/06/95		09/06/95		09/08/95	
	DATE ANALYZED --->	09/21/95		09/15/95		09/15/95		09/15/95		09/15/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23447	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE							12.	P				
60-57-1	Dieldrin												
72-20-8	Endrin							18.	P				
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane							1.6	P				
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260							68.	JP				
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST							
SAMPLE ID ------->	554-S-B001-02	554-S-B002-01	554-S-B002-02	564-S-B001-01	564-S-B001-02	564-S-B002-01
ORIGINAL ID ----->	554SB00102	554SB00201	554SB00202	564SB00101	564SB00102	564SB00201
LAB SAMPLE ID --->	23448.10	23448.13	23448.16	23459.01	23459.02	23459.11
ID FROM REPORT -->	554SB00102	554SB00201	554SB00202	564SB00101	564SB00102	564SB00201
SAMPLE DATE ----->	09/07/95	09/07/95	09/07/95	09/08/95	09/08/95	09/08/95
DATE EXTRACTED -->	09/08/95	09/08/95	09/08/95	09/11/95	09/11/95	09/11/95
DATE ANALYZED --->	09/26/95	09/26/95	09/26/95	09/22/95	09/22/95	09/23/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23447 NV	23447 NV	23447 NV	23447 NV	23447 NV	23447 NV
319-84-6 alpha-BHC						
319-85-7 beta-BHC						
319-86-8 delta-BHC						
58-89-9 gamma-BHC (Lindane)						
76-44-8 Heptachlor						
309-00-2 Aldrin						
1024-57-3 Heptachlor epoxide						
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE						
60-57-1 Dieldrin						
72-20-8 Endrin						
33213-65-9 Endosulfan II						
72-54-8 4,4'-DDD						
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT		7.2				
72-43-5 Methoxychlor						
5103-71-9 alpha-Chlordane						
5103-74-2 gamma-Chlordane		2.				
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	??????????	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	??????????	??????????	??????????	??????????	??????????

SW846-PEST													
	SAMPLE ID ------->	564-S-B002-02		564-S-B003-01		564-S-B003-02		598-S-B001-01		598-S-B001-02		598-S-B002-01	
	ORIGINAL ID ----->	564SB00202		564SB00301		564SB00302		598SB00101		598SB00102		598SB00201	
	LAB SAMPLE ID --->	23459.12		23459.05		23459.08		23561.10		23561.13		23561.08	
	ID FROM REPORT -->	564SB00202		564SB00301		564SB00302		598SB00101		598SB00102		598SB00201	
	SAMPLE DATE ----->	09/08/95		09/08/95		09/08/95		09/19/95		09/19/95		09/19/95	
	DATE EXTRACTED -->	09/11/95		09/11/95		09/11/95		09/20/95		09/20/95		09/20/95	
	DATE ANALYZED --->	09/23/95		09/22/95		09/22/95		09/26/95		09/26/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23447	NV	23447	NV	23447	NV	23560	NV	23560	NV	23560	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC											6.27	
58-89-9	gamma-BHC (Lindane)							2.39					
76-44-8	Heptachlor												
309-00-2	Aldrin							2.91					
1024-57-3	Heptachlor epoxide							6.2					
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE							59.6					
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II							10.9					
72-54-8	4,4'-DDD							90.5	E				
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT							21.6					
72-43-5	Methoxychlor							24.9					
5103-71-9	alpha-Chlordane							7.99					
5103-74-2	gamma-Chlordane							3.8					
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde							13.8					
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	598-S-B002-02		598-S-B003-01		598-S-B003-02		598-S-B004-01		598-S-B004-02		599-S-B001-01	
	ORIGINAL ID ----->	598SB00202		598SB00301		598SB00302		598SB00401		598SB00402		599SB00101	
	LAB SAMPLE ID --->	23561.09		23575.03		23575.04		23575.01		23575.02		23575.11	
	ID FROM REPORT -->	598SB00202		598SB00301		598SB00302		598SB00401		598SB00402		599SB00101	
	SAMPLE DATE ----->	09/19/95		09/20/95		09/20/95		09/20/95		09/20/95		09/20/95	
	DATE EXTRACTED -->	09/20/95		09/22/95		09/25/95		09/22/95		09/22/95		09/22/95	
	DATE ANALYZED --->	09/26/95		10/10/95		09/29/95		10/10/95		10/10/95		10/10/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE									16.3			
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST							
SAMPLE ID ------->	599-S-B001-02	599-S-B002-01	599-S-B003-01	599-S-B004-01	599-S-B004-02	599-S-B005-01
ORIGINAL ID ----->	599SB00102	599SB00201	599SB00301	599SB00401	599SB00402	599SB00501
LAB SAMPLE ID --->	23575.12	23575.06	23575.05	23575.07	23575.10	23575.13
ID FROM REPORT -->	599SB00102	599SB00201	599SB00301	599SB00401	599SB00402	599SB00501
SAMPLE DATE ----->	09/20/95	09/20/95	09/20/95	09/20/95	09/20/95	09/20/95
DATE EXTRACTED -->	09/22/95	09/22/95	09/22/95	09/22/95	09/22/95	09/22/95
DATE ANALYZED --->	10/10/95	10/10/95	10/10/95	10/10/95	10/10/95	10/10/95
MATRIX ---------->	Soil	Soil	Soil	Soil	Soil	Soil
UNITS ---------->	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A	UG/KG A
CAS # Parameter	23560 NV	23560 NV	23560 NV	23560 NV	23560 NV	23560 NV
319-84-6 alpha-BHC						
319-85-7 beta-BHC						
319-86-8 delta-BHC						
58-89-9 gamma-BHC (Lindane)						
76-44-8 Heptachlor						
309-00-2 Aldrin						
1024-57-3 Heptachlor epoxide						
959-98-8 Endosulfan I						
72-55-9 4,4'-DDE						6.12
60-57-1 Dieldrin						
72-20-8 Endrin						
33213-65-9 Endosulfan II						
72-54-8 4,4'-DDD						
1031-07-8 Endosulfan sulfate						
50-29-3 4,4'-DDT						
72-43-5 Methoxychlor		24.1				
5103-71-9 alpha-Chlordane						
5103-74-2 gamma-Chlordane						
53494-70-5 Endrin ketone						
7421-93-4 Endrin aldehyde						
8001-35-2 Toxaphene						
12674-11-2 Aroclor-1016						
11104-28-2 Aroclor-1221						
11141-16-5 Aroclor-1232						
53469-21-9 Aroclor-1242						
12672-29-6 Aroclor-1248						
11097-69-1 Aroclor-1254						
11096-82-5 Aroclor-1260						
9999000-33-9	??????????	??????????	??????????	??????????	??????????	??????????
12789-03-6 Technical Chlordane	??????????	??????????	??????????	??????????	??????????	??????????

SW846-PEST													
	SAMPLE ID ------->	599-S-B005-02		603-S-B001-01		603-S-B001-02		603-S-B002-01		603-S-B002-02		603-S-B003-01	
	ORIGINAL ID ----->	599SB00502		603SB00101		603SB00102		603SB00201		603SB00202		603SB00301	
	LAB SAMPLE ID --->	23575.16		23575.17		23575.18		23575.21		23575.22		23594.11	
	ID FROM REPORT -->	599SB00502		603SB00101		603SB00102		603SB00201		603SB00202		603SB00301	
	SAMPLE DATE ----->	09/20/95		09/20/95		09/20/95		09/20/95		09/20/95		09/21/95	
	DATE EXTRACTED -->	09/26/95		09/26/95		09/25/95		09/26/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/10/95		09/26/95		09/29/95		09/26/95		09/29/95		10/04/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23560	NV	23560	NV	23560	NV	23560	NV	23560	NV	23593	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT											8.23	
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane											3.01	
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde											3.55	
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST																	
	SAMPLE ID ------->	603-S-B003-02		603-S-B004-01		603-S-B004-02		605-S-B001-01		605-S-B002-01		605-S-B002-02	
	ORIGINAL ID ----->	603SB00302		603SB00401		603SB00402		605SB00101		605SB00201		605SB00202	
	LAB SAMPLE ID --->	23594.14		23594.15		23594.16		23627.08		23646.01		23646.02	
	ID FROM REPORT -->	603SB00302		603SB00401		603SB00402		605SB00101		605SB00201		605SB00202	
	SAMPLE DATE ----->	09/21/95		09/21/95		09/21/95		09/25/95		09/26/95		09/26/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/25/95		09/25/95		09/26/95		09/28/95	
	DATE ANALYZED --->	10/04/95		10/04/95		10/04/95		10/05/95		10/11/95		10/11/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23593	NV	23626	NV	23626	NV	23626	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin									1.78			
1024-57-3	Heptachlor epoxide							2.34					
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD									4.96			
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT							5.4					
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane							3.8					
5103-74-2	gamma-Chlordane							11.2					
53494-70-5	Endrin ketone									3.84			
7421-93-4	Endrin aldehyde							11.7					
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	605-S-B003-01		605-S-B004-01		605-S-B005-01		605-S-B005-02		605-S-B006-01		605-S-B006-02	
	ORIGINAL ID ----->	605SB00301		605SB00401		605SB00501		605SB00502		605SB00601		605SB00602	
	LAB SAMPLE ID --->	23594.28		23594.25		23646.03		23646.04		23596.12		23596.15	
	ID FROM REPORT -->	605SB00301		605SB00401		605SB00501		605SB00502		605SB00601		605SB00602	
	SAMPLE DATE ----->	09/21/95		09/21/95		09/26/95		09/26/95		09/22/95		09/22/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/28/95		09/28/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/09/95		10/09/95		10/11/95		10/11/95		10/09/95		10/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23626	NV	23626	NV	23593	NV	23593	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE	8.66								3.78			
60-57-1	Dieldrin	5.01											
72-20-8	Endrin							6.81					
33213-65-9	Endosulfan II									4.63			
72-54-8	4,4'-DDD	4.59		9.76				3.02					
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT	6.32		10.9				6.08		11.4			
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane							3.12					
53494-70-5	Endrin ketone			4.57				5.48		6.62			
7421-93-4	Endrin aldehyde	14.6								18.2			
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	605-S-B007-01		605-S-B008-01		605-S-B008-02		605-S-B009-01		605-S-B009-02		605-S-B010-01	
	ORIGINAL ID ----->	605SB00701		605SB00801		605SB00802		605SB00901		605SB00902		605SB01001	
	LAB SAMPLE ID --->	23596.11		23596.05		23596.06		23596.01		23596.04		23594.21	
	ID FROM REPORT -->	605SB00701		605SB00801		605SB00802		605SB00901		605SB00902		605SB01001	
	SAMPLE DATE ----->	09/22/95		09/22/95		09/22/95		09/22/95		09/22/95		09/21/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/25/95		09/25/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/09/95		10/09/95		10/09/95		10/09/95		10/09/95		10/09/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23593	NV	23593	NV	23593	NV	23593	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE			3.81						4.27			
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD			4.7						5.38			
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT	7.78						4.56				4.84	
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane							5.7					
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde	3.6											
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

NAVAL BASE CHARLESTON, SOUTH CAROLINA
CHARLESTON ZONE E
ZONE E

SW846-PEST													
	SAMPLE ID ------->	605-S-B010-02		605-S-B011-01		605-S-B011-02		GDE-S-B001-01		GDE-S-B001-02		GDE-S-B002-01	
	ORIGINAL ID ----->	605SB01002		605SB01101		605SB01102		GDESB00101		GDESB00102		GDESB00201	
	LAB SAMPLE ID --->	23594.22		23594.17		23594.20		23503.17		23503.18		23503.19	
	ID FROM REPORT -->	605SB01002		605SB01101		605SB01102		GDESB00101		GDESB00102		GDESB00201	
	SAMPLE DATE ----->	09/21/95		09/21/95		09/21/95		09/13/95		09/13/95		09/13/95	
	DATE EXTRACTED -->	09/25/95		09/25/95		09/25/95		09/15/95		09/15/95		09/15/95	
	DATE ANALYZED --->	10/09/95		10/04/95		10/08/95		09/24/95		09/24/95		09/24/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23593	NV	23593	NV	23593	NV	23502	NV	23502	NV	23502	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE												
60-57-1	Dieldrin												
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD												
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT												
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane												
5103-74-2	gamma-Chlordane												
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	GDE-S-B002-02		GDE-S-B003-01		GDE-S-B003-02		GDE-S-B005-01		GDE-S-B005-02		GDE-S-B008-01	
	ORIGINAL ID ----->	GDESB00202		GDESB00301		GDESB00302		GDESB00501		GDESB00502		GDESB00801	
	LAB SAMPLE ID --->	23503.20		23503.11		23503.14		23503.01		23503.04		23503.07	
	ID FROM REPORT -->	GDESB00202		GDESB00301		GDESB00302		GDESB00501		GDESB00502		GDESB00801	
	SAMPLE DATE ----->	09/13/95		09/13/95		09/13/95		09/13/95		09/13/95		09/13/95	
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95		09/15/95		09/15/95	
	DATE ANALYZED --->	09/24/95		09/25/95		09/24/95		09/23/95		09/23/95		09/23/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23502	NV	23502	NV	23502	NV	23502	NV	23502	NV	23502	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor									1.4			
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE			8.7						300.	E		
60-57-1	Dieldrin									10.	P		
72-20-8	Endrin									6.6	P		
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD			9.5		3.5	P			8.4	P		
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT			8.2		6.1	P			140.	E		
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane									36.	PE		
5103-74-2	gamma-Chlordane									35.	PE		
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde					6.6	P						
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260												
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-PEST													
	SAMPLE ID ------->	GDE-S-B008-02		GDE-S-B009-01		GDE-S-B009-02		GDE-S-B010-01		GDE-S-B010-02		GDE-S-B012-01	
	ORIGINAL ID ----->	GDESB00802		GDESB00901		GDESB00902		GDESB01001		GDESB01002		GDESB01201	
	LAB SAMPLE ID --->	23503.10		23485.17		23485.18		23485.15		23485.16		23485.01	
	ID FROM REPORT -->	GDESB00802		GDESB00901		GDESB00902		GDESB01001		GDESB01002		GDESB01201	
	SAMPLE DATE ----->	09/13/95		09/12/95		09/12/95		09/12/95		09/12/95		09/12/95	
	DATE EXTRACTED -->	09/15/95		09/15/95		09/15/95		09/15/95		09/15/95		09/15/95	
	DATE ANALYZED --->	09/23/95		09/27/95		09/27/95		09/27/95		09/27/95		09/26/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23502	NV	23484	NV	23484	NV	23484	NV	23484	NV	23484	NV
319-84-6	alpha-BHC												
319-85-7	beta-BHC												
319-86-8	delta-BHC												
58-89-9	gamma-BHC (Lindane)												
76-44-8	Heptachlor												
309-00-2	Aldrin												
1024-57-3	Heptachlor epoxide												
959-98-8	Endosulfan I												
72-55-9	4,4'-DDE			6.5				31.					
60-57-1	Dieldrin							7.5	P				
72-20-8	Endrin												
33213-65-9	Endosulfan II												
72-54-8	4,4'-DDD							15.	P				
1031-07-8	Endosulfan sulfate												
50-29-3	4,4'-DDT							79.	E				
72-43-5	Methoxychlor												
5103-71-9	alpha-Chlordane							4.9	P				
5103-74-2	gamma-Chlordane							6.2	P				
53494-70-5	Endrin ketone												
7421-93-4	Endrin aldehyde												
8001-35-2	Toxaphene												
12674-11-2	Aroclor-1016												
11104-28-2	Aroclor-1221												
11141-16-5	Aroclor-1232												
53469-21-9	Aroclor-1242												
12672-29-6	Aroclor-1248												
11097-69-1	Aroclor-1254												
11096-82-5	Aroclor-1260							360.	P				
9999000-33-9		??????????		??????????		??????????		??????????		??????????		??????????	
12789-03-6	Technical Chlordane	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA													
	SAMPLE ID ------->	005-S-B001-01		005-S-B001-02		005-S-B002-01		005-S-B002-02		005-S-B003-01		005-S-B003-02	
	ORIGINAL ID ----->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	LAB SAMPLE ID --->	23627.15		23627.19		23627.16		23627.20		23596.07		23596.08	
	ID FROM REPORT -->	005SB00101		005SB00102		005SB00201		005SB00202		005SB00301		005SB00302	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/25/95		09/25/95		09/22/95		09/22/95	
	DATE EXTRACTED -->	09/26/95		09/26/95		09/26/95		09/26/95		09/25/95		09/25/95	
	DATE ANALYZED --->	10/10/95		10/10/95		10/10/95		10/10/95		10/04/95		10/04/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23626	NV	23626	NV	23593	NV	23593	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene	100.	J										
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene	1000.		180.	J	81.	J						
120-12-7	Anthracene	210.	J	100.	J								
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	1200.		730.		340.	J	210.	J	140.	J		
129-00-0	Pyrene	970.		680.	J	250.	J	190.	J	98.	J		
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	510.	J	280.	J	140.	J						
218-01-9	Chrysene	550.	J	330.	J	280.	J			82.	J		
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	280.	J	340.	J	620.	J	220.	J	370.	J	280.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	530.	J	280.	J	400.	J	93.	J				
207-08-9	Benzo(k)fluoranthene	380.	J	330.	J	240.	J			120.	J		
50-32-8	Benzo(a)pyrene	450.	J	290.	J	130.	J						
193-39-5	Indeno(1,2,3-cd)pyrene	260.	J	180.	J	140.	J						
53-70-3	Dibenzo(a,h)anthracene	120.	J										
191-24-2	Benzo(g,h,i)perylene	260.	J	220.	J	150.	J						
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA													
	SAMPLE ID ------->	018-S-B005-01		018-S-B005-02		022-S-B001-01		022-S-B001-02		022-S-B002-01		022-S-B002-02	
	ORIGINAL ID ----->	018SB00501		018SB00502		022SB00101		022SB00102		022SB00201		022SB00202	
	LAB SAMPLE ID --->	23627.13		23627.14		23448.01		23448.02		23448.03		23448.04	
	ID FROM REPORT -->	018SB00501		018SB00502		022SB00101		022SB00102		022SB00201		022SB00202	
	SAMPLE DATE ----->	09/25/95		09/25/95		09/07/95		09/07/95		09/07/95		09/07/95	
	DATE EXTRACTED -->	09/26/95		09/26/95		09/08/95		09/08/95		09/08/95		09/08/95	
	DATE ANALYZED --->	10/10/95		10/10/95		09/14/95		09/14/95		09/14/95		09/14/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23626	NV	23626	NV	23447	NV	23447	NV	23447	NV	23447	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene									89.	J		
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene									170.	J	110.	J
120-12-7	Anthracene									71.	J		
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	170.	J			54.	J			230.	J	180.	J
129-00-0	Pyrene	180.	J			54.	J			110.	J	130.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	88.	J									64.	J
218-01-9	Chrysene	140.	J									97.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	280.	J	130.	J	3200.		160.	J	55.	J	220.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene	140.	J									69.	J
207-08-9	Benzo(k)fluoranthene	150.	J										
50-32-8	Benzo(a)pyrene	120.	J									66.	J
193-39-5	Indeno(1,2,3-cd)pyrene	76.	J									47.	J
53-70-3	Dibenzo(a,h)anthracene												
191-24-2	Benzo(g,h,i)perylene	90.	J									56.	J
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA													
	SAMPLE ID ------->	023-S-B001-01		023-S-B001-02		023-S-B002-01		023-S-B002-02		023-S-B003-01		063-S-B001-01	
	ORIGINAL ID ----->	023SB00101		023SB00102		023SB00201		023SB00202		023SB00301		063SB00101	
	LAB SAMPLE ID --->	23802.19		23802.20		23802.21		23802.22		23386.01		23386.04	
	ID FROM REPORT -->	023SB00101		023SB00102		023SB00201		023SB00202		023SB00301		063SB00101	
	SAMPLE DATE ----->	10/13/95		10/13/95		10/13/95		10/13/95		08/30/95		08/30/95	
	DATE EXTRACTED -->	10/17/95		10/17/95		10/17/95		10/17/95		09/01/95		09/01/95	
	DATE ANALYZED --->	10/31/95		10/31/95		10/31/95		10/31/95		09/07/95		09/07/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23801	NV	23801	NV	23801	NV	23801	NV	23386	NV	23386	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene			450.	J	160.	J	260.	J	380.	J		
120-12-7	Anthracene			93.	J								
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene			820.		320.	J	500.	J	540.	J		
129-00-0	Pyrene			760.		330.	J	550.	J	510.	J		
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene			400.	J	190.	J	280.	J	320.	J		
218-01-9	Chrysene			470.	J	230.	J	320.	J	350.	J		
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)			140.	J								
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene												
207-08-9	Benzo(k)fluoranthene			570.	J	270.	J	410.	J	380.	J		
50-32-8	Benzo(a)pyrene			390.	J	160.	J	260.	J	280.	J		
193-39-5	Indeno(1,2,3-cd)pyrene			210.	J			140.	J	140.	J		
53-70-3	Dibenzo(a,h)anthracene			74.	J								
191-24-2	Benzo(g,h,i)perylene			220.	J	78.	J	160.	J	180.	J		
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????					
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA																	
	SAMPLE ID ------->	063-S-B001-02		063-S-B002-01		063-S-B002-02		063-S-B003-01		063-S-B003-02		065-S-B003-01	
	ORIGINAL ID ----->	063SB00102		063SB00201		063SB00202		063SB00301		063SB00302		065SB00301	
	LAB SAMPLE ID --->	23386.05		23386.06		23386.07		23386.08		23386.09		23664.13	
	ID FROM REPORT -->	063SB00102		063SB00201		063SB00202		063SB00301		063SB00302		065SB00301	
	SAMPLE DATE ----->	08/30/95		08/30/95		08/30/95		08/30/95		08/30/95		09/27/95	
	DATE EXTRACTED -->	09/01/95		09/01/95		09/01/95		09/01/95		09/01/95		10/01/95	
	DATE ANALYZED --->	09/08/95		09/08/95		09/08/95		09/08/95		09/15/95		10/18/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23663	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol												
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene											390.	J
106-47-8	4-Chloroaniline											100.	J
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene												
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene												
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran												

SW846-SVOA																	
	SAMPLE ID ------->	063-S-B001-02		063-S-B002-01		063-S-B002-02		063-S-B003-01		063-S-B003-02		065-S-B003-01	
	ORIGINAL ID ----->	063SB00102		063SB00201		063SB00202		063SB00301		063SB00302		065SB00301	
	LAB SAMPLE ID --->	23386.05		23386.06		23386.07		23386.08		23386.09		23664.13	
	ID FROM REPORT -->	063SB00102		063SB00201		063SB00202		063SB00301		063SB00302		065SB00301	
	SAMPLE DATE ----->	08/30/95		08/30/95		08/30/95		08/30/95		08/30/95		09/27/95	
	DATE EXTRACTED -->	09/01/95		09/01/95		09/01/95		09/01/95		09/01/95		10/01/95	
	DATE ANALYZED --->	09/08/95		09/08/95		09/08/95		09/08/95		09/15/95		10/18/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23663	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene			230.	J	140.	J			100.	J		
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene			490.	J	220.	J						
129-00-0	Pyrene	140.	J	390.	J	360.	J			160.	J		
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene			290.	J	210.	J						
218-01-9	Chrysene			310.	J	230.	J						
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)												
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene			260.	J								
207-08-9	Benzo(k)fluoranthene			250.	J	260.	J						
50-32-8	Benzo(a)pyrene			280.	J	230.	J						
193-39-5	Indeno(1,2,3-cd)pyrene			160.	J	140.	J						
53-70-3	Dibenzo(a,h)anthracene												
191-24-2	Benzo(g,h,i)perylene			180.	J	180.	J						
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether											??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA													
	SAMPLE ID ------->	065-S-B003-02		065-S-B004-01		065-S-B005-01		065-S-B005-02		065-S-B006-01		065-S-B006-02	
	ORIGINAL ID ----->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	LAB SAMPLE ID --->	23664.16		23664.17		23664.18		23664.19		23681.07		23681.10	
	ID FROM REPORT -->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/27/95		09/27/95		09/28/95		09/28/95	
	DATE EXTRACTED -->	10/01/95		10/01/95		10/01/95		10/01/95		10/02/95		10/02/95	
	DATE ANALYZED --->	10/19/95		10/19/95		10/19/95		10/19/95		10/13/95		10/13/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV
108-95-2	Phenol												
111-44-4	bis(2-Chloroethyl)ether												
95-57-8	2-Chlorophenol												
541-73-1	1,3-Dichlorobenzene												
106-46-7	1,4-Dichlorobenzene												
95-50-1	1,2-Dichlorobenzene												
95-48-7	2-Methylphenol (o-Cresol)												
108-60-1	2,2'-oxybis(1-Chloropropane)												
106-44-5	4-Methylphenol (p-Cresol)												
621-64-7	N-Nitroso-di-n-propylamine												
67-72-1	Hexachloroethane												
98-95-3	Nitrobenzene												
78-59-1	Isophorone												
88-75-5	2-Nitrophenol												
105-67-9	2,4-Dimethylphenol												
120-83-2	2,4-Dichlorophenol												
120-82-1	1,2,4-Trichlorobenzene												
91-20-3	Naphthalene	150.	J										
106-47-8	4-Chloroaniline												
111-91-1	bis(2-Chloroethoxy)methane												
87-68-3	Hexachlorobutadiene												
59-50-7	4-Chloro-3-methylphenol												
91-57-6	2-Methylnaphthalene												
77-47-4	Hexachlorocyclopentadiene												
88-06-2	2,4,6-Trichlorophenol												
95-95-4	2,4,5-Trichlorophenol												
91-58-7	2-Chloronaphthalene												
88-74-4	2-Nitroaniline												
131-11-3	Dimethylphthalate												
208-96-8	Acenaphthylene												
606-20-2	2,6-Dinitrotoluene												
99-09-2	3-Nitroaniline												
83-32-9	Acenaphthene	120.	J									72.	J
51-28-5	2,4-Dinitrophenol												
100-02-7	4-Nitrophenol												
132-64-9	Dibenzofuran												

SW846-SVOA															
	SAMPLE ID ------->	065-S-B003-02		065-S-B004-01		065-S-B005-01		065-S-B005-02		065-S-B006-01		065-S-B006-02	
	ORIGINAL ID ----->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	LAB SAMPLE ID --->	23664.16		23664.17		23664.18		23664.19		23681.07		23681.10	
	ID FROM REPORT -->	065SB00302		065SB00401		065SB00501		065SB00502		065SB00601		065SB00602	
	SAMPLE DATE ----->	09/27/95		09/27/95		09/27/95		09/27/95		09/28/95		09/28/95	
	DATE EXTRACTED -->	10/01/95		10/01/95		10/01/95		10/01/95		10/02/95		10/02/95	
	DATE ANALYZED --->	10/19/95		10/19/95		10/19/95		10/19/95		10/13/95		10/13/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV	23663	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene	150.	J					320.	J				
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene	260.	J							38.	J		
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	440.	J					380.	J	740.			
129-00-0	Pyrene	470.	J					340.	J	540.			
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene	180.	J					200.	J	200.	J		
218-01-9	Chrysene	350.	J					280.	J	420.			
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)					160.	JB	100.	JB	74.	J	160.	J
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene									240.	J		
207-08-9	Benzo(k)fluoranthene	290.	J					350.	J	270.	J		
50-32-8	Benzo(a)pyrene	200.	J					180.	J	160.	J		
193-39-5	Indeno(1,2,3-cd)pyrene	140.	J							72.	J		
53-70-3	Dibenzo(a,h)anthracene												
191-24-2	Benzo(g,h,i)perylene							120.	J	74.	J		
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA	SAMPLE ID ------->	070-S-B001-01		070-S-B001-02		070-S-B002-01		070-S-B002-02		070-S-B003-01		070-S-B003-02	
	ORIGINAL ID ----->	070SB00101		070SB00102		070SB00201		070SB00202		070SB00301		070SB00302	
	LAB SAMPLE ID --->	23397.01		23397.02		23397.03		23397.06		23397.07		23397.08	
	ID FROM REPORT -->	070SB00101		070SB00102		070SB00201		070SB00202		070SB00301		070SB00302	
	SAMPLE DATE ----->	08/31/95		08/31/95		08/31/95		08/31/95		08/31/95		08/31/95	
	DATE EXTRACTED -->	09/05/95		09/05/95		09/05/95		09/05/95		09/05/95		09/05/95	
	DATE ANALYZED --->	09/12/95		09/12/95		09/12/95		09/11/95		09/12/95		09/12/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV	23386	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene												
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene	36.	J			140.	J						
129-00-0	Pyrene	61.	J			110.	J						
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene					71.	J						
218-01-9	Chrysene					100.	J						
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)												
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene					80.	J						
207-08-9	Benzo(k)fluoranthene					79.	J						
50-32-8	Benzo(a)pyrene					81.	J						
193-39-5	Indeno(1,2,3-cd)pyrene					42.	J						
53-70-3	Dibenzo(a,h)anthracene												
191-24-2	Benzo(g,h,i)perylene					49.	J						
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid												
39638-32-9	Bis(2-Chloroisopropyl)Ether			??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA															
	SAMPLE ID ------->	070-S-B004-01		070-S-B004-02		087-S-B001-01		087-S-B001-02		097-S-B001-01		097-S-B001-02	
	ORIGINAL ID ----->	070SB00401		070SB00402		087SB00101		087SB00102		097SB00101		097SB00102	
	LAB SAMPLE ID --->	23397.09		23397.10		23459.24		23459.25		23549.05		23549.06	
	ID FROM REPORT -->	070SB00401		070SB00402		087SB00101		087SB00102		097SB00101		097SB00102	
	SAMPLE DATE ----->	08/31/95		08/31/95		09/08/95		09/08/95		09/18/95		09/18/95	
	DATE EXTRACTED -->	09/05/95		09/05/95		09/11/95		09/11/95		09/19/95		09/19/95	
	DATE ANALYZED --->	09/12/95		09/12/95		09/15/95		09/18/95		09/28/95		09/28/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23386	NV	23386	NV	23447	NV	23447	NV	23535	NV	23535	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene					210.	J	81.	J				
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene					500.		170.	J	66.	J	68.	J
129-00-0	Pyrene					540.		180.	J	79.	J	100.	J
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene					260.	J	92.	J	44.	J	46.	J
218-01-9	Chrysene					330.	J	97.	J	47.	J	60.	J
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)					130.	J	230.	J	350.	JB	290.	JB
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene							94.	J	40.	J		
207-08-9	Benzo(k)fluoranthene					340.	J	69.	J	38.	J	60.	J
50-32-8	Benzo(a)pyrene					280.	J	90.	J	46.	J		
193-39-5	Indeno(1,2,3-cd)pyrene					180.	J	58.	J				
53-70-3	Dibenzo(a,h)anthracene					92.	J						
191-24-2	Benzo(g,h,i)perylene					220.	J	59.	J				
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid									200.	J	300.	J
39638-32-9	Bis(2-Chloroisopropyl)Ether	??????????		??????????		??????????		??????????		??????????		??????????	
110-86-1	Pyridine	??????????		??????????		??????????		??????????		??????????		??????????	
62-50-0	Ethyl methanesulfonate	??????????		??????????		??????????		??????????		??????????		??????????	
106-50-3	p-Phenylenediamine	??????????		??????????		??????????		??????????		??????????		??????????	
55-18-5	N-Nitrosodiethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
10595-95-6	N-Nitrosomethylethylamine	??????????		??????????		??????????		??????????		??????????		??????????	
924-16-3	N-Nitroso-di-n-butylamine	??????????		??????????		??????????		??????????		??????????		??????????	

SW846-SVOA															
	SAMPLE ID ------->	097-S-B002-01		097-S-B002-02		097-S-B003-01		097-S-B003-02		100-S-B001-01		100-S-B001-02	
	ORIGINAL ID ----->	097SB00201		097SB00202		097SB00301		097SB00302		100SB00101		100SB00102	
	LAB SAMPLE ID --->	23549.09		23549.10		23549.16		23549.13		23664.01		23664.04	
	ID FROM REPORT -->	097SB00201		097SB00202		097SB00301		097SB00302		100SB00101		100SB00102	
	SAMPLE DATE ----->	09/18/95		09/18/95		09/18/95		09/18/95		09/27/95		09/27/95	
	DATE EXTRACTED -->	09/19/95		09/28/95		09/19/95		09/19/95		10/01/95		10/01/95	
	DATE ANALYZED --->	09/28/95		09/29/95		09/28/95		09/29/95		10/17/95		10/17/95	
	MATRIX ---------->	Soil		Soil		Soil		Soil		Soil		Soil	
	UNITS ---------->	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A	UG/KG	A
CAS #	Parameter	23535	NV	23535	NV	23535	NV	23535	NV	23663	NV	23663	NV
121-14-2	2,4-Dinitrotoluene												
84-66-2	Diethylphthalate												
7005-72-3	4-Chlorophenylphenylether												
86-73-7	Fluorene												
100-01-6	4-Nitroaniline												
534-52-1	2-Methyl-4,6-Dinitrophenol												
86-30-6	N-Nitrosodiphenylamine												
101-55-3	4-Bromophenylphenylether												
118-74-1	Hexachlorobenzene												
87-86-5	Pentachlorophenol												
85-01-8	Phenanthrene					76.	J						
120-12-7	Anthracene												
84-74-2	Di-n-butylphthalate												
206-44-0	Fluoranthene					110.	J						
129-00-0	Pyrene					190.	J						
85-68-7	Butylbenzylphthalate												
91-94-1	3,3'-Dichlorobenzidine												
56-55-3	Benzo(a)anthracene					78.	J						
218-01-9	Chrysene					92.	J						
117-81-7	bis(2-Ethylhexyl)phthalate (BEHP)	160.	JB			210.	JB	100.	JB				
117-84-0	Di-n-octylphthalate												
205-99-2	Benzo(b)fluoranthene					70.	J						
207-08-9	Benzo(k)fluoranthene					61.	J						
50-32-8	Benzo(a)pyrene					65.	J						
193-39-5	Indeno(1,2,3-cd)pyrene					47.	J						
53-70-3	Dibenzo(a,h)anthracene												
191-24-2	Benzo(g,h,i)perylene					55.	J						
100-51-6	Benzyl alcohol												
65-85-0	Benzoic acid					130.	J	110.	J				
39638-32-9	Bis(2-Chloroisopropyl)Ether	?????????		?????????		?????????		?????????		?????????		?????????	
110-86-1	Pyridine	?????????		?????????		?????????		?????????		?????????		?????????	
62-50-0	Ethyl methanesulfonate	?????????		?????????		?????????		?????????		?????????		?????????	
106-50-3	p-Phenylenediamine	?????????		?????????		?????????		?????????		?????????		?????????	
55-18-5	N-Nitrosodiethylamine	?????????		?????????		?????????		?????????		?????????		?????????	
10595-95-6	N-Nitrosomethylethylamine	?????????		?????????		?????????		?????????		?????????		?????????	
924-16-3	N-Nitroso-di-n-butylamine	?????????		?????????		?????????		?????????		?????????		?????????	

COMMANDER, NAVAL BASE, CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 10 October 1995

1. Call to Order. The meeting was called to order by Mr. Don Harbert, Co-Chairman of the RAB.

2. RAB Members Attending.

Mr. Don Harbert	Captain Jim Augustin
Mr. Van Robinson	Mr. Daryle Fontenot
Mr. Virgil Johnston	Mr. Doyle Brittain
Mr. Bobby Dearhart	Mrs. Susan Floyd
Mr. Doyle Brittain	Mr. Ralph Laney
Mrs. Wannetta Mallette-Pratt	Mr. Arthur Pinckney
Ms. Ann Ragan	Mr. Lou Mintz
Mr. Virgil Johnston	Mr. Wilburn Gilliard
LCDR Nick Cimorelli	Mr. Oliver Addison
Mr. Steve Best	

3 Guests Attending.

Mr. Tony Hunt	SOUTHNAVFAC
Mr. Brian Stockmaster	SOUTHNAVFAC
Mrs. Pat Franklin	SOUTHNAVFAC
Mr. David Franklin	SOUTHNAVFAC
Mr. Jim Beltz	SOUTHNAVFAC
Mr. Jim Moore	DOD Base Transition Coordinator
CAPT W. F. Nold	CHASNAVSHIPYD
Mr. Tom Gerken	CHASNAVSHIPYD
LT Donna Murphy	PAO NAVBASE CHASN
Ms. Jeri Johnson	RDA
Mr. Seth Nelson	NES
Mr. Ray Holmes	NES
Mrs. June Brittain	Concerned Citizen
Dr. Jim Speakman	EnSafe/Allen & Hoshall
Ms. Lisa Brown	EnSafe/Allen & Hoshall
Mr. Todd Haverkost	EnSafe/Allen & Hoshall
Ms. Diane Cutler	EnSafe/Allen & Hoshall
Ms. Ginny Gray	EnSafe/Allen & Hoshall
Mr. Toby Blasingame	EnSafe/Allen & Hoshall
Mr. Bill Davis	EnSafe/Allen & Hoshall
Mr. Dave Backus	EnSafe/Allen & Hoshall
Mr. Mark Bowers	EnSafe/Allen & Hoshall
Mr. Lawson Anderson	EnSafe/Allen & Hoshall
Mr. Phil Wood	EnSafe/Allen & Hoshall
Mr. Craig R. Smith	EnSafe/Allen & Hoshall
Mr. Robert Moser	EnSafe/Allen & Hoshall

4. Comments on Minutes and Administrative Announcements.

Mr. Harbert asked for comments on the minutes of the September meeting. Mr. Pinckney said he wanted clarification on or reference to the "water bodies" zone, which was provided by Mr. Hunt at a later time. The minutes were accepted and will be placed in the Repositories. Mr. Harbert commented that Senator Hollings had acknowledged his letter concerning funds coming into the Charleston area. Senator Hollings' letter said that the matter would be explored and an answer provided.

5. RAB Member Concerns and Visions for the RAB.

Captain Augustin called attention to the list of RAB member concerns that was passed out at the September meeting. He also passed out a Record of the RAB Planning Session which was held by the Public Relations Sub-Committee. (A copy of this Record is attached to these minutes.) He then called for a "brainstorming session" among RAB members for additional concerns/suggestions for improving RAB effectiveness and community involvement in the RAB.

Mr. Lou Mintz said he thinks that RAB members don't feel important - they should be consulted about what they think . Right now they are only heard when they have a particular question they want answered.

Mr. Mintz also said that the RDA should be the driving force on cleanup of the Base and not a community panel such as the RAB.

Mr. Virgil Johnston said the RDA would like to see the investigation phase speeded up and the Record of Decision (ROD) issued. A lot of people want to move onto the Base but are not willing to spend any money on capital improvements when they can only get a five year lease.

Mr. Arthur Pinckney said that priorities on investigation and cleanup should be set and the limited money used on the areas that have reuse potential.

Ms. Wannetta Mallette-Pratt said that public participation needs to be emphasized and that a better site for meetings should be selected. The Public Relations Subcommittee accepted the job of recommending an improved site.

Mrs. Susan Floyd expressed concern about the lack of attendance at the RAB meetings by the general public, noting that the same people are at each meeting and that they are not representative of the community. She also said that meetings should be held closer to the Base to make them more accessible Base neighbors.

Mr. Jim Moore voiced concern that the process has been going on for two years and there is still no approved RCRA Facility Investigation (RFI) Report for the first Zone. He said that limited funds need to be spent wisely.

Mr. Doyle Brittain said that he felt the RAB was a very important and powerful group of people. He said the people at EPA pay a lot of attention to input they get from the RAB. One of his concerns is that the RAB has not been used as much as it should have been for input into many of the decisions being made. He said he would like for the Board to review the Charter for the RAB and then take more active in providing advice.

Mr. Van Robinson also expressed concern that the RAB is not contributing to decisions, but is simply getting a summary every month of decisions that have been made by the RDA and Southern Division.

Mr. Ralph Laney said that a unique opportunity was available in FY 96 with the $7.5 million set aside for actual cleanup work. The BCT, in conjunction with the RAB, needs to identify interim actions that can be done in FY 96.

Mr. Bobby Dearhart said that the RAB was supposed to be a community advisory board. He said that he never gets any calls from the community about what is going on. He also said that most of the newspaper articles about the Base are not accurate. His concern is that there is no interest within the community. He said he wants to raise some community interest in Base cleanup and reuse.

Mr. Mintz said that when he talks with people from the community they don't seem to think there is a problem, or else they think that even if there were a problem, they would never be told about it by the Navy. He said he has tried to convince them that if there are problems the Navy will take care of them.

Mr. Johnston said that he felt the seeming lack of community interest was the complexity of the Base cleanup and that the average person simply doesn't know what questions to ask.

As an aside to Mr. Dearhart's statement about inaccurate news reporting, Captain Augustin talked about a Post and Courier article by Terry Joyce that said the Navy may wrap up Base investigation by the end of this year. In actuality, investigations will not be complete until 1997 with the current level of funding.

Mr. Virgil Johnston asked if the investigations could possibly be finished in 1996 if adequate funding were made available. Captain Augustin said "yes", but the money had been taken away by Congress.

Ms. Ann Ragan said that she has attended RAB meetings other than Charleston in her capacity as a DHEC representative. She said that one effective method for the RAB to get answers is to write motions to the responsible agencies and to get a

written response to the motions. Responsible agencies could be anyone from the State to the EPA to the local BCT.

Mr. Pinckney said that records of the RAB meetings should be reviewed in order to re-ask or follow up on certain questions.

LCDR Nick Cimorelli said he thought reemploying workers was going well and that he did not see the great impact that had been expected.

Mr. Pinckney said that Charleston isn't doing as well as it appears. He said that reality just hasn't set in yet. Mr. Van Robinson said that the overall economy in Charleston is doing good, but he didn't feel that the Navy and the RDA were doing that good.

Mr. Brittain announced that the President has issued an Executive Order on environmental justice. The purpose of the order is to insure that all of the diverse groups that live in the vicinity of any of the closing bases have a voice in the decisions that are being made and that their interests are looked out for. The Department of Defense (DOD) has developed a strategy on how the Order will be implemented. This involves the RABs and he wants every member to look at the DOD strategy to insure that the Charleston RAB is doing what it should be. One of the DOD strategies is to have RAB meetings as close to the Base as possible so that the people who are most affected by the closing have the best opportunity to attend and participate. He suggested, as others have, that meeting places in the vicinity of the Base be considered. He said that Charleston has several groups interested in environmental justice as it relates to Charleston in general and Naval Base, Charleston, specifically, and the RAB should get with these groups and represent them.

Mr. Lou Mintz noted that the RAB has never received any money for outreach to the public. He compared the RAB to an engine without gas. He said the RAB can't do it's job without some monetary support.

6. Subcommittee Reports.

Mr. Daryle Fontenot reported that the Community Relations Subcommittee met earlier in the day. The Community Relations Plan will be ready for distribution at the November meeting. The Subcommittee saw the need for further information concerning the leasing process and has begun work on a Fact Sheet for the leasing process. The Subcommittee has also started work on a format for a handout and poster for the RFI results. It will be distributed when the investigation results are available and releasable. He asked the RAB for suggestions on issues the Subcommittee should be addressing.

Mr. Brittain said that EnSafe should be better utilized in Charleston. Ms. Diane Cutler of EnSafe said that her Company was already being used in Charleston for getting the word out to the public in the form of advertising, fact sheets and posters.

She said that in Charleston as well as other closing locations, not much public response is being generated.

Mr. Robinson suggested the Cherokee Methodist Church again. He also suggested that some of the meetings be held in the daytime.

Ms. Wannetta Mallette-Pratt said that the time of the meeting was not as important as the location. She also said that the meetings are repetitive and not that interesting.

Ms. Ann Ragan agreed with Ms. Mallette-Pratt and asked if the RAB could come up with something to draw people to the meetings such as a drop-in, a luncheon or a social.

7. Environmental Cleanup Progress Report.

Mr. Tony Hunt, Remedial Project Manager for the Charleston Naval Complex, passed out the Monthly Resource Conservation and Recovery Act Facility Investigation (RFI) Progress Report for September 1995. (Attached to these minutes is a copy of the report with a map showing where the various Zones are.)

Before he started his formal presentation he assured the RAB members that he understands their concerns about what contaminants are being found at the Base. He said that a presentation was being put together that would answer the members' questions. He hopes to have the EnSafe Zone Task Order Managers at the next meeting to answer questions on how the zone investigations are progressing and what the results are.

Based on funds expected in FY 96, Zones A, B, C, E, H, and I are fully funded. Zones J, L, D, F and G are funded for RFI Work Plans only. Funds are expected for completing the groundwater monitoring in Zone H.

We have received $2.5 million of a $7 million shortfall to complete investigation of all Zones. We are about 60% funded. We had anticipated using it for Zones J and L because the investigative work there appplies to all Zones. (They are the water bodies and the sewer and railroad systems.) He said he would like RAB input if they thought the funds would be better spent on Zones D, F and G which are three major Zones in the center of the Base.

Mr. Hunt said that the investigation of the entire Base could be completed in FY 96 if the additional $4.5 million was received. However, the $4.5 million is not expected in FY 96, which ends next September 30, 1996.

Mr. Mintz asked who decides how the money is to be spent. Mr. Hunt explained that in going through the budget process, the total requirement was submitted to Headquarters and when the budget came back, Southern Division was given certain

controls which means that funding requirements had to be adjusted within those controls. Guiding principles were also furnished by Headquarters which said to stay out of the way of reuse. Therefore, Southern Division had to prioritize projects across all closing bases based on the limited amount of funding received. By doing so, that's how it was decided where the money would go.

Mr. Mintz asked if it would take a Freedom of Information lawsuit to find out where the money is going or if it could be provided by Southern Division. Mr. Mintz said he wanted a line item by line item accounting of where the money has will be going.

He also wants an accounting of the tasks that EnSafe has been awarded with FY 95 money.

Mr. Pinckney also wanted some clarification on funding and wants some information on how much money Charleston is getting compared to other closing bases.

Mr. Johnston said the RDA was trying to get Findings of Suitability to Lease for buildings and questioned why Zone L was being looked at. Mr. Hunt explained that releases from the sewer lines in Zone L were being investigated because they could affect the entire Base by going into the soil and groundwater. If there is contamination in the soil and groundwater under the buildings the RDA wants, then Zone L becomes an issue.

Continuing with his September update, Mr. Hunt reported that 30 to 40% of soil borings have been taken in Zone E. Shallow wells have been installed and deep well installation will begin this month using the Rotasonic technique.

Field work also began in Zones A and B where about 2/3 of the shallow wells have been installed. There will also be 9 deep wells installed.

The Draft Final RFI Report for Zone H is under review by regulatory agencies. In order to expedite approval, the Navy and contractor met with the regulators to discuss some of the issues relating to the Baseline Risk Assessment. Mr. Moore asked when the regulators would provide their comments. Mr. Brittain of EPA said next week and Ms. Ragan on DHEC said she wasn't sure but would check on it and let him know later.

Mr. Virgil Johnston felt that a status report on Zone progress was appropriate. Mr. Van Robinson suggested that a subcommittee be formed to provide a status for the group.

A scoping meeting was held for Zones D, F and G. Each site was discussed and sampling strategies developed. This Work Plan should be submitted in December.

No additional sites were discovered in September.

Captain Augustin asked when the remaining field sampling in Zone E would be complete. Mr. Dave Backus of EnSafe said it should be complete 17 months from initiation of field work. It was begun on 21 August 1995. That schedule is simply for sampling and does not include the RFI Report completion.

Mrs. Susan Floyd asked what the term "scoping" was. Mr. Hunt said it was looking at any information available on a site within a particular Zone, determining what sort of contaminants have been stored, released or disposed of in that area and determining what media need to be sampled and the techniques to use in that sampling.

Continuing on with his formal presentation, Mr. Hunt gave the projected activity for October. Groundwater monitoring well installation will continue in Zones A, B and E. Regulatory comments on Zones J should be received. Regulatory comments on Zone L should be resolved soon. Work will continue on the Zones C and I RFI Report (due 18 and 11 Dec respectively).

Planning for Voluntary Interim Measures should also begin. Mr. Hunt explained that interim measures are circumstances where releases have occurred that are posing an imminent and substantial danger to human health and the environment. In such cases, EPA or the State can require that an interim measure be taken to mitigate that release and reduce the risk to either human or ecological receptors. He further explained that an interim measure is a remedial action that is taken prior to completion of the RFI or Corrective Measures Study. In other words, the remedial action (cleanup action) is done prior to completion of the normal process that is defined under RCRA.

Mr. Hunt said that Charleston has no sites where EPA or the State would direct that an interim measure be taken. However, the Navy would like to do voluntary interim measures. The reason is that Charleston has a resource in the Shipyard Detachment that can conduct these removal actions and because there are a number of sites where contamination can be removed now to prevent further contamination of other media such as groundwater. Where interim measures are performed, we will try to take all action that would be required as a final remedial action. One of the reasons we want to do voluntary interim measures is because if we had to follow the normal corrective action process it would put us into April of next year before we would have the information necessary to start corrective measures implementation in Zone H. By doing voluntary interim measures, we will be able to start planning and begin those actions before the Study is complete. The Study will be designed to consider any interim measures being done.

Members all agreed that the term "interim measures" was confusing since it sounded as though additional action would have to be performed again at a later date as a final action. Mr. Hunt agreed that was confusing but the term is integral to RCRA and it is used because the nature of the action is usually to prevent exposure to a release until it can be cleaned up. In this case though, we

want to use the action to complete a cleanup much sooner. Mr. Brian Stockmaster pointed out that the term "interim" is appropriate, because even if an interim measure is used to complete a cleanup, we still must get regulatory agreement that everything is taken care of to get final corrective measure approval.

Mr. Mintz asked why we would be spending money on interim measures if there was a chance the regulators would say something more had to be done to get final corrective measure approval. Mr. Hunt said that it wasn't likely to happen because all actions would be done in coordination with EPA and the State. Mr. Stockmaster gave an example of an interim measure. He said that if soil was contaminating groundwater, the soil could be removed as an interim measure. The final action will have to address the groundwater itself, but the contamination won't continue because the soil has been removed.

Mrs. Floyd asked how much the planned "interim measures" would cost. Mr. Hunt said that the $7.5 million earmarked for the Shipyard Detachment would be used. The Shipyard Detachment can be used for investigation or for remediation. We will try to balance our available funding where we will be continuing the investigations and conducting cleanup actions at the same time.

The RAB can contribute to the interim measures planning. A list sites where interim measures are proposed will be presented to the RAB and asked for feedback. Hopefully this will be available at the next meeting. The process will require the RAB, the BCT, the RDA and the regulatory agencies to look at possible alternatives and then the Shipyard Detachment will be tasked with developing the Work Plans. Mr. Johnston said that the RDA works closely with the BCT in relating the RDA's priorities.

Mr. Stephen Best asked how deep the deep wells were going to be. Mr. Hunt said they were typically 40 to 60 feet in the vicinity of the marl. The marl gets much more shallow in the northern zones. According to some old data from WW II, the marl comes up in elevation in the Controlled Industrial Area. Mr. Best wanted to know if the water was transient system (flow-through) and if sampling was showing any commonality among the zones. He wanted to know if the same things were showing up in all of the zones. Mr. Todd Havercost of EnSafe said that contamination in groundwater has been very localized around the sites. Overall groundwater quality varies from one end of the Base to the other, The only thing that is similar are things you would expect to see in brackish water such as high total dissolved solids, chlorides, and sulfates which are naturally occurring. This is very important in establishing the background conditions of this shallow water. Mr. Best wanted to know if anything disturbing has been found in the groundwater. Mr. Havercost said that there has been some disturbing contamination on a small scale but it is very localized. Mr. Best wanted to know if there was any way to tell if there was seepage out into the local community and if it could pose a health hazard to the communities around the Base. Mr. Havercost said that, as part of the overall groundwater assessment of the Base, monitoring wells will be installed around the perimeter of the Base. Wells that have been placed around the localized areas of

contamination have shown no evidence of seepage. The only thing to consider when talking about the boundaries of the Base is the potential of groundwater to be discharging into the surface water bodies such as the Cooper River and Shipyard Creek. There are still some questions about that.

8. Update on Redevelopment Authority Actions.

Using a map, Mr. Virgil Johnston pointed out property that was to be leased to Charleston Marine Manufacturing Company on 12 October. The property is Drydock No. 5 and the first ship to be repaired should arrive on 15 October. They will employ about 200 people. Quite a few government agencies are taking property from the RDA. Government agencies have top priority for job creation but they provide no tax base and pay no rent. They do pay their utility bills.

He said the RDA has a prospect for Building 234 , the Shipyard Commander's Building, and wanted it conveyed to the RDA. Captain Augustin explained that the reason for this is that the prospect is a Federal agency (the Military Transportation Management Command) who can lease from the RDA if the RDA owns Building. If a commercial tenant wanted to occupy the building it could be leased to the RDA and then subleased to the tenant. There are prohibitions against the government paying to lease a property which is Federally owned. It was pointed out that the Post Office had given the RDA some money, but the Post Office is a quasi-governmental agency and is different from MTMC.

Mr. Johnston said that if the RDA loses Buildings 234, there won't be enough money to pay for upkeep on the Base.

Mr. Moore asked if there was any way to get the RFI Report for Zone C prior to the scheduled date of 18 December to see what has to be cleaned up around Building 234. Mr. Johnston said he was mainly looking for a schedule. Mr. Brittain said we had a schedule and it was the Corrective Action Management Plan. Mr. Dearhart said that this request has never been presented to the BCT. He said that the request for Buildings 234 should have been brought to the BCT for resolution. He said that no answer was going to be given at this RAB meeting on transferring the buildings. He said now that it has been presented as a priority, it can be considered by the BCT.

9. Navy Closure Progress.

Captain Augustin said that at one point there were 74 ships in Charleston in the late 1980's. At the time that BRAC was passed, there were 40 ships and submarines in Charleston with an overall plan to come down to 2, which are the 2 ships now at the Weapons Station the USS Santa Barbara and the Mount Baker. There are no homeported ships remaining in Charleston. There may be visiting ships, but the mission of the Naval Station ended in September and the last ship under repair by the Shipyard was finished and went for sea trials at the end of September.

As far as people are concerned, there was peak employment in late 1989. Looking at the BRAC decision two years ago, there were 27,300 people - military and civilian. The closure involves the loss of 19,000 - mostly military, but a significant number of civilians. Today, of the 19,000, 16,870 have gone - again, largely military. We have now dropped from 27,300 to a present population of about 10,430 and the residual number of Navy in the area involving the Hospital, Southern Division, and the Naval Weapons Station is 7,284. The drawdown of closure in terms of people is largely accomplished.

About 1/3 of the buildings have been put in layup status. Most others will be laid up will be done by 1 April 1996. Some will remain to be laidup on contract after that date because they will be occupied up until the end. We are hopeful that a number of buildings will be hot turnovers in the Shipyard area and there won't be any layup to do on them.

Mr. Pinckney asked what "layup" involved. Captain Augustin explained that some buildings have no reuse potential and they have their utilities severed. Other buildings have some reuse potential and are essentially stabilized for a period in a caretaker mode hoping that reuse will occur. Some buildings are left heated and air conditioned. There are six layup levels based on the reusability of the building and our responsibilities under the law to maintain the Base as reusable as it can be until it is turned over to the RDA.

Mr. Mintz asked who sets the criteria for the layup level for each building. Captain Augustin said that the owner of the building (i.e. Shipyard, Naval Station, Fleet Industrial Supply Command) in consultation with the RDA declares the level.

10. Other Business.

Mr. Pinckney called everyone's attention to the Environmental Newsletter that was attached to last month's minutes of the RAB meeting. The Newsletter reported proposed Congressional cuts in the EPA's budget. He asked members to get out in the community and have them ask their Congressional representatives to support the President's budget proposal.

Mr. Johnston again asked for a speedy decision on turning over buildings. He said that Buildings 234 and 7 would bring about 1,000 civil service jobs. He also said that if those buildings aren't transferred, the burden of fire protection, police protection, etc. would fall to the citizens of North Charleston.

Mrs. Mallette-Pratt challenged each RAB Member to bring five visitors to the next meeting.

11. Adjournment.

It was announced that the next meeting is scheduled for 14 November 1995. Time and location to be announced at a later time. The meeting was adjourned.

Minutes approved by: _____ _____

J. H. AUGUSTIN
CAPT, CEC, USN
Co-Chairman

DON HARBERT
Co-Chairman

Attachments to Minutes:
(1) Record of RAB Planning Session
(2) Environmental Update for September

13 June 1995

RECORD OF RAB PLANNING SESSION

A. AGENDA

- Welcome - Intros - Logistics
- Opening Exercise
- Brainstorm -

  What are the responsibilities of RAB members?
- Individual Brainstorm
- Evaluation of RAB meetings
- Future topics

B. QUESTIONS ASKED ON RAB MEMBERS

(1) What do I bring to the RAB meeting to benefit it?

(2) What do I want to take away from the RAB meeting?

(3) What do we want to accomplish at RAB meetings?

C. WHAT ARE THE RESPONSIBILITIES OF RAB MEMBERS?

The following ideas were generated by brainstorming:

- Inform the community of what is gone on
- Keep abreast of BRAC cleanup procedures
- Maintain a certain level of environmental knowledge
- Serve as communication link between Navy, EPA, DHEC, Community

- Review environmental cleanup efforts
- Bring community's needs and desires to RAB
- Provide fact versus rumors to the community
- Be more informed of day-to-day cleanup efforts
- Raise community's consciousness at earliest stages possible
- Push for more rapid cleanup
- Provide cleanup advice
- Need both sides of the environmental issues
  (Sometimes fed biased opinions)
- Have members report at meetings what they have done
- Make environmental issues relevant
- Attendance at meetings
- Educate others

What works

Open dialogue
Dissemination of information
Raising questions
Having a RAB
RAB's power

What doesn't work

Need focus for RAB
Need for real data
Getting input from community

What we've learned

RCRA process
RAB has power
Underestimate our influences

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR SEPTEMBER 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Based on funds expected to receive in FY 96)
  Fully funded: Zones A, B, C, E, H, I
  Funded for RFI Work Plans only: Zones J, L, D, F, G
  Remainder of Groundwater monitoring in Zone H

- Remaining to fund for investigation (total requirement of $7 Million)
  Zones J, L, D, F, G implementation
  All portions of investigation for Zone K

- Cost of the Investigation to Date - To be provided during November RAB meeting.

PROGRESS FOR SEPTEMBER

- Zone E field work has begun. 30 to 40 % of soil borings have been taken. Shallow wells are being installed with deep well installation to begin in October. These will be installed using the Rotasonic technique.

- Zone A and B field work has begun. 12 of 19 shallow wells have been installed with 9 deep wells to go.

- Zone H Draft Final RFI report is being review by regulatory agencies. In order to expedite the process, the Navy and Ensafe met with EPA and the State to discuss specific issues relating to the report such as the Baseline Risk Assessment.

- Scoping meeting was held for Zones D, F & G. Each site was discussed in detail and sampling strategies developed as a result. This work plan is expected to be submitted in mid December.

- No additional sites were discovered in September. The following table reflects the total number of sites.

Number of sites to date

Solid Waste Management Units	195
Areas Of Concern	205
Total	400
No Further Investigation at this time	165
Total to investigate	234

Samples collected to date/Proposed samples

	Soil	Groundwater	Sediment	Surface Water	Air	Wipe
Zone H	800/800	292/292	13/13	4/4		0
Zone I	204/204	55/55	22/22	5/5		18/18
Zone C	238/238	31/31	13/13	14/14		0
Zone A & B	87/196	12/34	0/2			
Zone E	268/767	0/192	0/38		1/7	0/34

PROJECTED ACTIVITY FOR OCTOBER

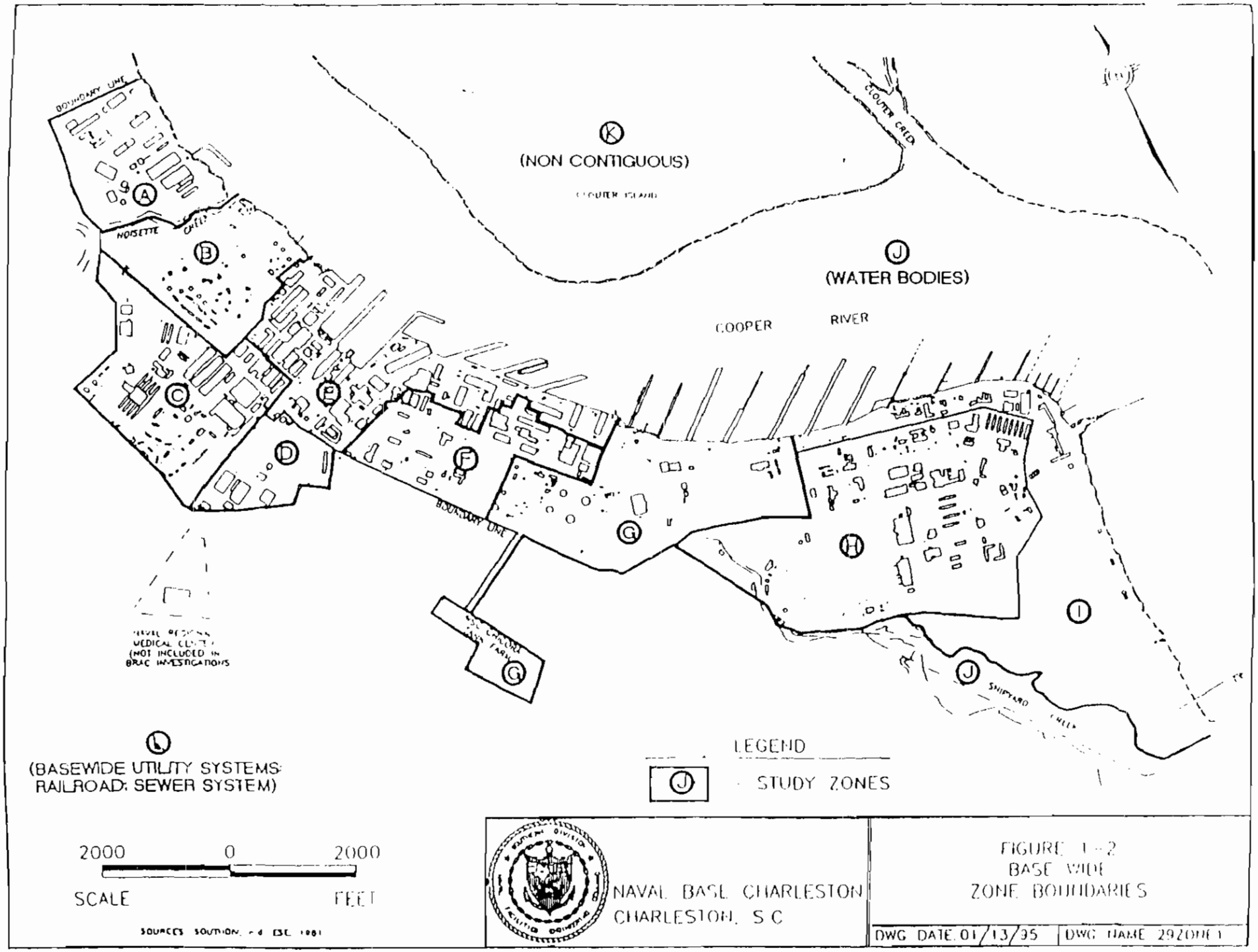
- Continue groundwater monitoring well installation in Zone E.

- Continue groundwater monitoring well installation in Zones A & B.

- Resolve regulatory comments on Zones J and L work plans.

- Continue work on Zone C and I RFI report (Due 18 Dec and 11 Dec respectively).

- Begin Interim Measures planning.


(NON CONTIGUOUS)
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NOISETTE CREEK
SOUTH CREEK
SHIPYARD CREEK
(NOT INCLUDED IN BRAC INVESTIGATIONS
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES SOUTHDIV, ed ESE 1981
NAVAL BASE CHARLESTON
CHARLESTON, S C
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE 01/13/95
DWG NAME 292DHE1

NAVBASE CHARLESTON

ATTACHMENT A

Status Report — Zone E RFI
Summary of Field Activities
August 21 - November 30, 1995

ATTACHMENT B

Data
Zones A to E

ATTACHMENT C

Restoration Advisory Board (RAB)
Minutes of 10 October 1995

NAVBASE CHARLESTON

ATTACHMENT A

Status Report — Zone E RFI
Summary of Field Activities
August 21 - November 30, 1995

ATTACHMENT B

Data
Zones A to E

ATTACHMENT C

Restoration Advisory Board (RAB)
Minutes of 10 October 1995

DEPARTMENT OF THE NAVY
CHARLESTON NAVAL SHIPYARD
CHARLESTON, S.C. 29408-6100

5090
Ser 106.2/009
10 JAN 1996

Mr. G. Randall Thompson
Director, Division of Hazardous and
Infectious Waste Management
Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

RE: FORWARDING OF QUARTERLY RCRA FACILITY INVESTIGATION PROGRESS REPORT

Dear Mr. Thompson:

The purpose of this letter is to forward a copy of the Quarterly RFI Progress Report for the Naval Base Charleston Complex as required by our Hazardous and Solid Waste Ammendments Part B Permit (EPA SCO 170 022 560).

Enclosure (1) is the Quarterly RFI Progress Report for activity up through December 31, 1995. If you have any questions, please contact Amos Webb at (803) 743-5519.

Sincerely,

R. L. LANEY
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Quarterly RCRA Facility Investigation Report - Summary through 31 December, 1995

Copy to:
SCDHEC (Bowers, Olano)
COMANVBASE (N4BEC, Dearhart, Fontenot, Brittain)
SOUTHNAVFACENGCOM (Hunt, Stockmaster)
USEPA (Brittain)
E/A&H

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 December 1995 To 31 December 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 1994 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of December 1995.

II. PORTION OF THE RFI COMPLETED

- Additional proposed page change revisions to the *Comprehensive RFI Work Plan* were submitted to SCDHEC and USEPA on 14 December 1995. The proposed revisions provide contingency measures for use during the installation of deep wells.

- The initial round of groundwater sampling was completed in both Zones A and B.

- Preparation of the *Draft Zone C RFI Report* continued.

- The second quarter of groundwater sampling in Zones and I was initiated on 4 December 1995. A portion of the wells were sampled before activities were suspended on 15 December 1995. Section VI addresses the second quarter sampling in greater detail.

- The *Draft Zones D, F, and G RFI Work Plan* was submitted to SCDHEC and USEPA on 14 December 1995 for review and comment .

- Field work continued in Zone E at a number of sites. Attachment A contains a summary of the work completed to date.

- The *Final Zone H RFI Work Plan* was submitted to SCDHEC and EPA for approval on 27 December 1995.

- Preparation of the *Draft Zone I RFI Report* continued.

III. SUMMARIES OF FINDINGS

Groundwater data from the 6 existing wells at SMWUs 1 and 2 in Zone A have been received and evaluated. As specified in the *Final Zone A and B Work Plan*, the data will be presented to the BCT and Project Team where a consensus will be reached regarding the need (or lack thereof) for additional wells. The preliminary information does not indicate a groundwater problem exists as a result of activities at either site. This information is anticipated to be presented in greater detail at the January Project Team meeting.

The remainder of the groundwater data for Zones A and B is scheduled to be delivered from the laboratory beginning the week of 15 January 1996.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The minutes of the November 1995 meeting are provided as Attachment B. The minutes of the December 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

As mentioned in Section II, the second quarter of groundwater sampling in Zones C and I was initiated on 4 December 1995. Groundwater sampling activities were suspended on 15 December 1995 pending the outcome of Project Team discussions regarding the concept of reducing analytical parameters based on first round sampling results.

The subcontract laboratory for Zone H sample analysis (Pace, Inc.) has filed for bankruptcy which has led to a large scale layoff of personnel. Some difficulties were encountered with the delivery of the third quarter Zone H groundwater data as a result. All the data has now been received from the laboratory. Due to uncertainties regarding the future of the lab, the

groundwater sample analysis subcontract will be awarded to one of the other laboratories currently performing work on the project.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Data evaluation for Zones A, B, and E will begin.
- The draft RFI reports for both Zones C and I are due to be submitted to SCDHEC and USEPA on 26 January 1996.
- Funding to write the Zone K RFI work plan is anticipated to be awarded in early January 1996. As soon as funding is awarded preparation for a scoping meeting to follow shortly thereafter will begin.

Field Activities:

- Quarterly groundwater sampling should resume in Zones C and I.
- Soil sampling efforts will continue in Zone E. In addition, the installation of both deep and shallow wells will continue.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and EPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Status Report — Zone E RFI
Summary of Field Activities
August 21 - December 31, 1995

The following summary details work completed and work remaining during the initial phase of field work at each site. Work remaining does not take into account the additional work which will be required to define the extent of any contamination detected in the initial phase of the project. A total of 94 shallow groundwater monitoring wells and 20 deep monitoring wells have been installed. A total of 628 soil, 28 sediment, 74 wipe, 15 air, 21 core, and 23 surface water samples have been collected.

SWMU 5 and 18, AOC 605 — Pad 1278
Data will be shared between the SWMUs and AOC due to the close proximity of these sites.

SWMU 5
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) adjacent to SWMU 5. No further action is scheduled at this time.

SWMU 18
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and two shallow monitoring well locations (4 samples) adjacent to SWMU 18. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 605
Work Completed — Soil sampling activities have been completed. Soil samples were collected from eight soil boring (14 samples) and three shallow monitoring well locations (6 samples) adjacent to Pad 1278. A sample could not be collected from the second interval at one soil boring and one shallow monitoring well location due to obstructions in the borings. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells adjacent to Pad 1278.

SWMUs 21 and 54 — Building 1275
Data will be shared between these SWMUs due to the close proximity of these sites.

SWMU 21
Work Completed — Work completed for this site is to be shared with SWMU 54. All samples were identified with a SWMU 54 identification.

SWMU 54

Work Completed — Soil sampling activities have been completed. Soil samples were collected from 37 soil boring (74 samples) and three shallow monitoring well locations (6 samples) in the area adjacent to former Building 1275. Four sediment samples have been collected from four locations adjacent to the site in the Cooper River. Eighteen thickness samples were collected across the site to define the volume of waste material present for the purpose of corrective measures. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells.

SWMUs 22 and 25, AOC 554 — Between Buildings 5 and 44

Data will be shared between this AOC and SWMU due to the close proximity of these sites.

SWMU 22

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

AOC 554

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

SWMU 25

Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMUs 23 and 63, AOCs 540, 541, 542, and 543 -- Building 226

Data will be shared between several AOCs and SWMUs due to the close proximity of these sites.

SWMU 23

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings locations (4 samples) and from one shallow monitoring well location (2 samples) outside of Building 226. One shallow and one deep monitoring well have been installed outside of the building.

Work Remaining — Sample one shallow monitoring well one deep well outside the building.

SWMU 63
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring and two shallow well locations (6 samples) outside of Building 226. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Sample the two shallow monitoring wells outside the building.

AOC 540
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside of Building 226. No further action is scheduled at this time.

AOC 541
Work Completed — Soil sampling activities have been completed. A soil sample was collected from one soil boring (1 sample) in the area between Buildings 6 and 226. A sample could not be collected from the second interval due to an obstruction in the boring. Data from this boring will be shared with AOC 542 due to the close proximity of these sites. No further action is scheduled at this time.

AOC 542
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and four shallow monitoring well locations (7 samples) in the area between Buildings 6 and 226. A sample could not be collected from the second interval at one soil boring and one well location due to subsurface obstructions. Four shallow monitoring wells have been installed in the area between Buildings 6 and 226.

Work Remaining — Sample the four shallow monitoring wells in the area between Buildings 6 and 226. Data from one soil boring and one monitoring well location will be shared with AOC 538 due to the close proximity of these sites.

AOC 543
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside and from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 226. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the shallow monitoring well outside the building.

SWMU 53, AOC 526 — Building 212
Data from this AOC and SWMU will be shared due to the close proximity of these sites.

SWMU 53
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) and one shallow monitoring well location (2 samples) adjacent to Building 212. One shallow monitoring well has been installed.

Work Remaining — Sample the shallow monitoring well.

AOC 526
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seven soil boring (14 samples) and two shallow monitoring well locations (3 samples) adjacent to Building 212. One shallow monitoring well has been installed.

Work Remaining — Install one shallow and one deep monitoring well adjacent to the building. Sample the two shallow and one deep monitoring wells.

SWMU 65, AOC 544 and 546 — Building 221
Data will be shared between these AOCs and SWMU due to the close proximity of these sites.

SWMU 65
Work Completed — Soil samples have been collected from six shallow monitoring well locations (11 samples) outside of Building 221. A soil sample could not be collected from the second interval of one soil boring due to an obstruction in the boring. Six shallow monitoring wells have been installed outside of the building.

Work Remaining — Install ans sample one deep monitoring well and sample the six shallow monitoring wells outside the building.

AOC 544
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (8 samples) inside of Building 221. No further action is scheduled at this time.

AOC 546
Work Completed — An attempt to collect a soil sample from one corner of former Building 1025 was unsuccessful due to subsurface obstructions encountered below the concrete surface. Samples collected from SWMU 65 and AOC 544 will share data with this site due to the proximity of these sites and should be sufficient to determine the presence of any contamination which may have produced by AOC 546. One sediment sample was collected from a drain in the corner of former Building 1025. No further action is scheduled at this time.

SWMU 67 — Building 3

Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and one monitoring well location (2 samples) inside Building 3 and one shallow monitoring well location (2 samples) outside the building. Air sampling for mercury was completed using a Jerome Mercury Vapor Analyzer. Wipe samples were collected at 8 locations (4 in the former mercury gauge room, 4 in the most recent gauge room). Two shallow monitoring wells have been installed, one inside the building and one outside the building.

Work Remaining — Sample the two shallow monitoring wells.

SWMU 70, AOCs 548 and 549 — Building 5

SWMU 70

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings and two shallow monitoring well locations (8 samples) between Buildings 3 and 5. Two shallow monitoring wells have been installed between Buildings 3 and 5.

Work Remaining — Sample the two shallow monitoring wells between Buildings 3 and 5. Install and sample one deep monitoring well which was relocated from AOC 549.

AOC 548

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) inside of Building 5. No further work is scheduled at this time.

AOC 549

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 5 and four soil borings and three shallow monitoring well locations (14 samples) in the alley between Buildings 3 and 5. Three shallow monitoring wells have been installed in the alley between the buildings. One deep well proposed for this site was not accessible; therefore, the location of this well was moved to SWMU 70.

Work Remaining — Sample the three shallow monitoring wells in the alley between Buildings 3 and 5.

SWMU 81 — Former Building 1245

Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations in the Cooper River, adjacent to the site. Three concrete core samples were collected from the location of the former building. No further action is scheduled at this time.

SWMUs 83 and 84, AOC 574 — Building 9
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 83
Work Completed — Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) inside of Building 9 and two shallow monitoring well locations (4 samples) outside the building. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells outside of the building.

SWMU 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and two shallow monitoring well locations (4 samples) adjacent to Building 9. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 574
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and three shallow monitoring well locations (6 samples) adjacent to Building 9. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells and install and sample one deep monitoring well.

SWMUs 87 and 172, AOC 564 — Building 80
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 87
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) outside of Building 80, at the former location of the <90 day storage area. No further action is scheduled at this time.

SWMU 172
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and two monitoring well locations (12 samples) outside of Building 80, at the former location of the steam cleaning operations. One sediment sample was collected from the drain outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 564
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) outside of Building 80, at the location of the oil/water separator. No further action is scheduled at this time.

SWMU 97 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 236. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 236.

SWMU 100 — Building 218
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) at the location of the former satellite accumulation area. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 218.

SWMU 102 — Building 79
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMU 106, AOC 603 — Dry Dock #3
Data will be shared between this AOC and SWMU due to their close proximity.

SWMU 106
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring locations (4 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

AOC 603
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

SWMU 145 — Building 13A
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from nine soil boring locations and from three shallow monitoring well locations. Install and sample three shallow monitoring wells and one deep well outside the building.

SWMU 170 and 171 - Dry Docks 1 and 2
Data will be shared between these SWMUs due to the close proximity of these sites.

SWMU 170
Work Completed - No work has been completed.

Work Remaining - Collect soil samples from fifteen soil boring locations and four sediment samples from four storm drains at the site.

SWMU 171
Work Completed - Soil sampling activities have been completed. Soil samples were collected from twenty-one soil boring locations (35 samples) based on a grid system across the SWMU. Soil samples could not be collected from four proposed soi boring locations due to subsurface obstructions. Seventeen asphalt samples were collected from soil boring locations at which an asphalt surface was present.

Work Remaining - Collect two sediment samples from two storm drains at the site.

SWMU 173 — Building 1297
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside of Building 1297. Three sediment samples were also collected from three drains outside of the building. No further action is scheduled at this time.

AOC 525 — Building 223
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) and one shallow monitoring well locations (2 samples) inside the building.

Work Remaining - Install and sample one shallow monitoring well inside Building 223.

AOC 528 — Building 1453
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) outside of Building 1453. One shallow monitoring well was installed outside the building.

Work Remaining — Sample the one shallow monitoring well outside the building.

AOC 530 — Building 35
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from three soil borings, two shallow well locations, and three surface locations underneath the building. Install and sample two shallow and two deep monitoring wells.

AOC 531 — Building 459
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) around Building 459. Wipe sampling activities have been completed with 4 wipe samples collected. One surface soil sample will be collected and shared with AOC 530. No further action is scheduled at this time.

AOCs 538 and 539 — Building 6
AOC 538
Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from seven soil borings (13 samples) inside the building and one shallow monitoring well location (2 samples) outside the building. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with two samples collected each 24 hour time period (10 samples with one blank). One shallow and one deep monitoring well have been installed outside of Building 6.

Work Remaining — Sample one shallow and one deep monitoring well outside the building. Data from one soil boring and one monitoring well location will be shared with AOC 542 due to the close proximity of these sites.

AOC 539
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside and from one shallow monitoring well location (2 samples) outside of Building 6. One sediment sample was also collected from a drain inside the building. Wipe sampling activities have been completed with 6 wipe samples collected (3 random floor, 3 biased horizontal surface). Air sampling activities according to the SAP were

completed between September 19 - 25, 1995 with one sample collected each 24 hour time period (5 samples with one blank). Note: 15 samples with two blanks for complete coverage of AOC 538 and 539 (Building 6 inclusive). One shallow monitoring well has been installed outside the building.

Work Remaining — Sample one shallow monitoring well and install and sample one deep monitoring well outside the building.

AOC 550 — Former Building 1111
Work Completed — No work has been completed.

Work Remaining - Collect soil samples at six soil boring locations and two shallow monitoring well locations. Install and sample two shallow monitoring wells.

AOC 551 and 552 — Building 1119
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 551
Work Completed — Soil sampling activities have been completed. Soil samples were collected at four soil borings (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 1119. Two shallow monitoring wells and one deep well have been installed.

Work Remaining — Sample the two shallow and one deep monitoring wells outside of Building 1119.

AOC 552
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) at the location of former Building 1030. An attempt to collect soil samples from a fourth soil boring was unsuccessful due to subsurface obstructions in the area of the boring. No further action is scheduled at this time.

AOC 555 — Former Building 29
Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations adjacent to the site in the Cooper River. No further action is scheduled at this time.

AOC 556 — Dry Dock Discharges
Work Completed — Sampling activities have been completed. Nine sediment samples were collected from 9 locations in the Cooper River adjacent to Dry Docks 1, 2, 3, 4 and 5. In addition, 23 surface water samples were collected from the same 9 locations at which the sediment samples were collected. Samples were collected from one to three different intervals at each location, depending on the depth of water. No further action is scheduled at this time.

AOC 558 — Building 77
Work Completed — Four wipe samples have been collected from the substation inside of Building 77.

Work Remaining — Collect four concrete core samples from the area outside the substation.

AOCs 559, 560 and 561 — Building 32
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 559
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seventeen soil borings (34 samples) and five shallow monitoring well locations (10 samples) in the area surrounding Building 32. Five shallow and one deep monitoring wells have been installed. Wipe sampling activities have been completed with 9 wipe samples collected inside of Building 32.

Work Remaining — Sample the five shallow and one deep monitoring wells and install and sample two more deep monitoring wells.

AOC 560
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) adjacent to Building 32. No further action is scheduled at this time.

AOC 561
Work Completed — Soil samples have been collected from four soil borings (8 samples) adjacent to Building 451-B (substation).

Work Remaining — Collect soil samples from one soil boring inside of Building 451-B.

AOC 562 — Building 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) adjacent to Building 84.

Work Remaining — Collect 4 wipe samples from inside the building.

AOC 563 — Former Building 37
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 566 — Building 194
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) outside of Building 194. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well outside of the building.

AOC 567 — Building 75
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (7 samples) outside of Building 75. A sample could not be collected from the second interval at one soil boring due to an obstruction in the boring. Four wipe samples have also been collected from inside the building. No further action is scheduled at this time.

AOCs 569, 570 and 578 — Building 25
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 569
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and two shallow monitoring well locations (4 samples) at the location of the former oil storehouse and gas station. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 570
Work Completed — Soil samples have been collected from six soil borings (12 samples) and two shallow monitoring well locations (4 samples) outside of Building 25. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Collect soil samples from six soil borings and one shallow monitoring well location. Sample the two shallow monitoring wells. Install and sample one shallow and two deep monitoring wells.

AOC 578
Work Completed — No work has been completed at this site.
Work Remaining — Collect soil samples from six soil borings inside of Building 25.

AOC 571 — Building 177
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 572 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and three shallow monitoring well locations (6 samples) outside of Building 177, at the former location of the motor area. Three shallow monitoring wells have been installed in the parking lot outside of Building 177. One sediment sample was also collected from a drain in the parking lot outside the building.

Work Remaining — Sample the three shallow monitoring wells outside the building.

AOC 573 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) outside Building 177. Two sediment samples were collected from drains adjacent to Building 177. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of Building 177.

AOC 576 — Building 80
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 80 and two monitoring well locations (4 samples) outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of the building.

AOC 579 — Building 1035
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 1035. No further action is scheduled at this time.

AOC 580 — Building 10
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 10. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of Building 10.

AOC 583 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and three shallow monitoring well locations (6 samples) outside of Building 236. Three shallow monitoring wells have been installed outside of Building 236.

Work Remaining — Sample the three shallow monitoring wells outside the building and install and sample one deep monitoring well outside of Building 236.

AOC 586 — Former Building 1014
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples). One shallow monitoring well was installed at the location of former Building 1014.

Work Remaining — Sample the one shallow monitoring well.

AOC 590 — Building 79
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from four soil boring locations and one shallow monitoring well location and collect two sediment samples from two storm drains at the site. Install and sample one shallow and one deep monitoring well outside the building.

AOC 592 — Former Building 1225
Work Completed — No work has been completed at this site.

Work Remaining — Collect soil samples from four soil boring locations at the location of former Building 1225.

AOC 596 — Building 101
Work Completed — Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) outside the building, and one soil boring (2 samples) and four shallow monitoring well locations (8 samples) inside the building. Soil samples could not be collected from a second soil boring location inside the building due to subsurface obstructions. Four shallow and two deep monitoring wells have been installed outside the building.

Work Remaining — Sample the four shallow and two deep monitoring wells outside of the building.

AOC 597 — Building 91
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 91. Three wipe samples were collected

from inside the building. One concrete core sample was collected outside the building. No further action is scheduled at this time.

AOC 598 and 599 — Building 39, Pier J
AOC 598
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) at Pier J. One sediment sample was collected from a drain at the pier. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well at Pier J.

AOC 599
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (6 samples) and one shallow monitoring well location (2 samples) adjacent to Building 39. A soil sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings. One sediment sample was collected from a drain outside of Building 39. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 39.

AOC 602 — Building 95
Work Completed — Wipe sampling activities have been completed. Wipe samples were collected from four locations inside the building.

Work Remaining — Collect soil samples from four soil borings outside Building 95.

AOC 604 — Building 96
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from four soil borings outside of Building 96 and four wipe samples from inside the building.

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
AOC 525 - Bldg 223	8	N/A	N/A	N/A	N/A	N/A	0
AOC 526 - Bldg 212	17	N/A	N/A	N/A	N/A	N/A	0
AOC 528 - Bldg 1453	8	N/A	N/A	N/A	N/A	N/A	0
AOC 531 - Bldg 459	6	N/A	4	N/A	N/A	N/A	N/A
AOC 538 - Bldg 6	15	N/A	16	10	N/A	N/A	0
AOC 539 - Bldg 6	6	1	6	5	N/A	N/A	0
AOC 540 - Bldg 226	2	N/A	N/A	N/A	N/A	N/A	0
AOC 541 - Bldg 226	1	N/A	N/A	N/A	N/A	N/A	N/A
AOC 542 - Bldg 226	12	N/A	N/A	N/A	N/A	N/A	0
AOC 543 - Bldg 226	8	N/A	N/A	N/A	N/A	N/A	0
AOC 544 - Bldg 221	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 546 - Bldg 221	N/A	1	N/A	N/A	N/A	N/A	N/A
AOC 548 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 549 - Bldg 5	20	N/A	N/A	N/A	N/A	N/A	0
AOC 551 - Bldg 1119	12	N/A	N/A	N/A	N/A	N/A	0
AOC 552 - Bldg 1119	6	N/A	N/A	N/A	N/A	N/A	N/A
AOC 554 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 555 - Bldg 29	N/A	2	N/A	N/A	N/A	N/A	N/A
AOC 556 - Dry Docks	N/A	9	N/A	N/A	N/A	23	N/A
AOC 558 - Bldg 77	N/A	N/A	4	N/A	N/A	N/A	N/A
AOC 559 - Bldg 32	44	N/A	9	N/A	N/A	N/A	0
AOC 560 - Bldg 32	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 561 - Bldg 32	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 562 - Bldg 84	8	N/A	0	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
AOC 564 - Bldg 80	6	N/A	N/A	N/A	N/A	N/A	N/A
AOC 566 - Bldg 194	10	N/A	N/A	N/A	N/A	N/A	0
AOC 567 - Bldg 75	7	N/A	4	N/A	N/A	N/A	N/A
AOC 569 - Bldg 25	10	N/A	N/A	N/A	N/A	N/A	0
AOC 570 - Bldg 25	16	N/A	N/A	N/A	N/A	N/A	0
AOC 572 - Bldg 177	16	1	N/A	N/A	N/A	N/A	0
AOC 573 - Bldg 177	10	2	N/A	N/A	N/A	N/A	0
AOC 574 - Bldg 9	10	N/A	N/A	N/A	N/A	N/A	0
AOC 576 - Bldg 80	10	N/A	N/A	N/A	N/A	N/A	0
AOC 579 - Bldg 1035	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 580 - Bldg 10	12	N/A	N/A	N/A	N/A	N/A	0
AOC 583 - Bldg 236	14	N/A	N/A	N/A	N/A	N/A	0
AOC 586 - Bldg 1014	8	N/A	N/A	N/A	N/A	N/A	0
AOC 596 - Bldg 101	22	N/A	N/A	N/A	N/A	N/A	0
AOC 597 - Bldg 91	8	N/A	3	N/A	1	N/A	N/A
AOC 598 - Pier J	8	1	N/A	N/A	N/A	N/A	0
AOC 599 - Bldg 39	8	1	N/A	N/A	N/A	N/A	0
AOC 602 - Bldg 95	0	N/A	4	N/A	N/A	N/A	N/A
AOC 603 - DD3	10	N/A	N/A	N/A	N/A	N/A	0
AOC 605 - 1278	20	N/A	N/A	N/A	N/A	N/A	0
SWMU 5 - Pad 1278	6	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 18 - 1278	9	N/A	N/A	N/A	N/A	N/A	0
SWMU 21 - Bldg 1275	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 22 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
SWMU 23 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 53 - Bldg 212	4	N/A	N/A	N/A	N/A	N/A	0
SWMU 54 - Bldg 1275	43	4	N/A	N/A	N/A	N/A	N/A
SWMU 63 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 65 - Bldg 221	11	N/A	N/A	N/A	N/A	N/A	0
SWMU 67 - Bldg 3	14	N/A	8	Ran-dom	N/A	N/A	0
SWMU 70 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	0
SWMU 81 - Bldg 1245	N/A	2	N/A	N/A	3	N/A	N/A
SWMU 83 - Bldg 9	16	N/A	16	0	N/A	N/A	0
SWMU 84 - Bldg 9	12	N/A	N/A	N/A	N/A	N/A	0
SWMU 87 - Bldg 80	2	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 97 - Bldg 236	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 100 - Bldg 218	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 106 - DD3	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 171 - DD2	35	0	N/A	N/A	17	N/A	N/A
SWMU 172 - Bldg 80	12	1	N/A	N/A	N/A	N/A	0
SWMU 173 - Bldg 1297	4	3	N/A	N/A	N/A	N/A	N/A
TOTAL	628	28	74	15	21	23	0

Note:
N/A Indicates no samples were proposed for that particular matrix.

Tuesday, Dec. 12 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

2:00 PM Location: **Naval Hospital** Charleston @ corner of Rivers and McMillan Avenue. in North Charleston. Meeting will be in the **Cafeteria** located in the basement of the multistory building on the side toward Rivers Avenue.

2:00 PM RAB MEETING

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting

C. Subcommittee Reports

D. Environmental Cleanup Progress Report — Cleanup Team

E. Future RAB Discussion Topics — Mr. Doyle Brittain
   Risk Assessment — Mr. Joe Bower for
   RAB Organizational Changes — Ms. Ann Ragan

G. Remaining Questions and Comments from Visitors

H. Other Business

I. Agenda for Next Meeting

Please mark your calendar: Our next meeting is Tuesday, January 9, 1996. Time to be determined.

Tuesday, Dec. 12 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

2:00 PM Location: **Naval Hospital** Charleston @ corner of Rivers and McMillan Avenue. in North Charleston. Meeting will be in the **Cafeteria** located in the basement of the multistory building on the side toward Rivers Avenue.

2:00 PM RAB MEETING

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting

C. Subcommittee Reports

D. Environmental Cleanup Progress Report — Cleanup Team

E. Future RAB Discussion Topics — Mr. Doyle Brittain
   Risk Assessment — Mr. Joe Bower for
   RAB Organizational Changes — Ms. Ann Ragan

G. Remaining Questions and Comments from Visitors

H. Other Business

I. Agenda for Next Meeting

Please mark your calendar: Our next meeting is Tuesday, January 9, 1996. Time to be determined.

Attachment (1)

PROJECTED ACTIVITY FOR NOVEMBER

- Continue groundwater monitoring well installation in Zone E.
- Continue groundwater monitoring well installation in Zones A & B.
- Resolve regulatory comments on Zones J and L work plans submit final documents.
- Resolve issues with Zone H Draft RFI report and incorporate into Draft RFI reports for subsequent zones (Zones C and I).
- Continue planning for Interim Measures utilizing Shipyard Detachment as a resource.

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR OCTOBER 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Based on funds expected to receive in FY 96, available funds as a result of cost savings and alternative sampling methods)
  Fully funded: Zones A, B, C, E, H, I
  Funds available, not yet negotiated and awarded: J, L
  Funded for RFI Work Plans only: Zones D, F, G

- Remaining to fund for investigation (total requirement of $4.5 Million)
  Zones D, F, G implementation
  Work Plans and implementation for Zone K

- Cost of the Investigation to Date - To be discussed.

PROGRESS FOR OCTOBER

- Zone H - Progress report by Todd Haverkost, Task Order Manager for Zone H and Project Task Order Manager, E/A&H.

- Zones C and I- Progress report by Ginny Gray, Task Order Manager, E/A&H.

- Zone E - Presentation by David Backus, Task Order Manager, Ensafe/Allen & Hoshall.

- Zones A and B - Progress report by Lawson Anderson, Task Order Manager, E/A&H.

Attachment (2)

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 14 November 1995 Meeting

1. Call to Order

The meeting was called to order by Captain Jim Augustin, Navy co-chair of the RAB. The Captain welcomed everyone to the new location at the Naval Hospital and asked for any feedback on the new location. Announced absent RAB members and introduced three new visitors in the audience. The Captain explained the basic ground rules: start the meeting on time, end on time, explain acronyms, and make sure everyone's questions get answered.

2. RAB Members Attending

Captain Jim Augustin	Mr. Virgil Johnston
Mr. Oliver Addison	Mr. Ralph Laney
LCDR Nick Cimorrelli	Ms. Wannetta Mallette-Pratt
Mr. Bobby Dearhart	Mr. Robert Mikell
Mrs. Susan Floyd	Mr. Louis Mintz
Mr. Daryle Fontenot	Ms. Ann Ragan
Mr. Wilburn Gilliard	Mr. Van Robinson

3. Guests Attending

Mr. Tony Hunt	SOUTHNAVFAC
Mr. Rick Davis	SOUTHNAVFAC
Ms. T.B. Fielding	SOUTHNAVFAC
Ms. Kim Reavis	SOUTHNAVFAC
Mr. David Pratt	SOUTHNAVFAC
Lt. Donna Murphy	COMNAVBASE PAO
Ms. Sally Kuhl	COMNAVBASE
CAPT W.F. Nold	CNSY
Mr. Tom Gerken	CNSY
Mr. Joe Bowers	SCDHEC
Ms. Jeannie Olano	SCDHEC
Ms. Jeri Johnson	RDA
Ms. Susan Dunn	Grassroots Conversion Coalition
Mr. Gene Eaton	Atlantic Drilling Corp.
Mr. Les Birtchet	NRRO
Mr. Jim Moore	Concerned Citizen
Mr. Clyde Anderson	Concerned Citizen
Mr. Jay Cornelius	EnSafe/Allen&Hoshall
Ms. Ginny Gray	EnSafe/Allen&Hoshall
Mr. Lawson Anderson	EnSafe/Allen&Hoshall
Ms. Diane Cutler	EnSafe/Allen&Hoshall
Mr. Mark Bowers	EnSafe/Allen&Hoshall

3. Guests Attending, Continued

Mr. Dave Backus	EnSafe/Allen&Hoshall
Dr. and Mrs. James Speakman	EnSafe/Allen&Hoshall
Mr. Todd Haverkost	EnSafe/Allen&Hoshall
Ms. Lisa Brown	EnSafe/Allen&Hoshall
Mr. S.H. Weatherford	EnSafe/Allen&Hoshall
Mr. Jack Mayfield	EnSafe/Allen&Hoshall

4. Comments on Minutes and Administrative Announcements

Captain Augustin asked for comments on last month's meeting minutes which were taken by Barbara Eller of Southern Division. There were no comments, therefore minutes were accepted and will be placed in the Information Repository.

5. RAB Member Concerns

Captain Augustin brought up an issue, drawn from the minutes of the last two meetings, which focuses on the RAB's concern that they don't actually advise on anything. So far, there have not been many issues to advise on, however, there are some.

As a review, the RAB Charter states that the RAB is a forum for discussion and information exchange on environmental cleanup issues between the cleanup team and the community. RAB members will review and provide comments on environmental documents. In order to increase the RAB's advisory role, they need to work more closely with the cleanup team. Captain Augustin requested that the BRAC Cleanup Team (Daryle Fontenot, Ann Ragan, Bobby Dearhart, Doyle Brittain) all sit together to make themselves more visible. The Captain also recommended to Admiral Watkins that Daryle Fontenot replace him in the Navy co-chair position since the Cleanup Team should be emphasized during these meetings.

Captain Augustin asked for suggestions on how to make the RAB a more participatory team. He recommended that the cleanup team should be the focal point for questions and recommendations. In addition, meeting minutes should include an encapsulated summary of the evening's recommendations or ideas, and should highlight the RAB advisory comments to the BRAC Cleanup Team.

Mrs. Susan Floyd inquired whether the RAB should address the cleanup team, or the co-chair. Since Daryle Fontenot is part of the cleanup team and has been recommended as co-chair, he can be addressed.

6. Subcommittee Reports

Daryle Fontenot reported that the Public Relations Subcommittee met prior to the RAB

meeting and all members were present. The Community Relations Plan has been finalized and was passed out to all RAB members at the beginning of the meeting. Anyone who wants their own copy should contact the Base Closure Office.
Today, the subcommittee worked on Fact Sheet #5, the FOSL process, and may have it ready for RAB review in December, or at the latest, in January.

Captain Augustin reminded Daryle that the Public Relations Subcommittee was charged with deciding on the location for upcoming RAB meetings. Mr. Fontenot responded that the subcommittee did not discuss it at this meeting. The Captain said to keep it on the agenda. The Naval Hospital may be a good place to keep having the meetings since it meets a lot of the criteria. Other suggested locations include the Cherokee Church for daytime meetings, and the Department of Public Services, just down the road. Any other suggestions should be addressed to the Public Relations Subcommittee.

7. Environmental Cleanup Progress Report

Daryle Fontenot introduced the three part Environmental Cleanup Progress Report: Tony Hunt will present the RCRA Facility Investigation (RFI) progress for the month of October, EnSafe/Allen&Hoshall Task Order Managers will provide individual Zone updates, and Mr. Fontenot will discuss expenditures.

Tony Hunt distributed a handout which discussed Zone funding and progress. A copy of this handout can be found in the attachments to these minutes. Funding is available for Zones J and L, but not yet negotiated and awarded. Total funding requirement is $4.5 million. Until this requirement is met, the Navy still can not begin implementation of Zones D, F, and G or work plans and implementation for Zone K.

Todd Haverkost, Task Order Manger for Zone H, stated that E/A&H will only address the zones where field activities are completed or ongoing. Zone H is the first zone for which all field work has been completed. The draft RCRA Facility Investigation (RFI) Report was submitted on July 31 for review and comment by SCDHEC and EPA. E/A&H has received some draft comments allowing them to address a few of the technical issues.

Mr. Haverkost discussed some of the technical decisions E/A&H and regulators have been discussing. The first issue is groundwater classification, specifically, whether the groundwater is considered a useable source. SCDHEC's policy is that all groundwater in the state is classified as drinking water. Other alternatives are currently being considered.

Cleanup Criteria and Future Land Use are closely related issues also requiring technical decisions. E/A&H has been asked to make recommendations regarding which sites need further investigations and which will fall out. Four of the 31 Zone H sites will fall out, but issues remain with 27 remaining sites, specifically, what is the threshold where cleanup has to take place, and will sites be cleaned up to residential or industrial levels. These are risk-management decisions and must be made by the regulators.

Jeri Johnson asked what the definition is for residential and industrial. Mr. Haverkost responded that housing and playgrounds are examples of residential, industrial is a little harder to define and come up with cleanup values for. This will be a risk-management decision that has to be made by the regulators.

Susan Floyd asked who makes the final determination on what is clean. Again, the response was that it is up to the regulators to render a risk management decision.

Captain Augustin reiterated that this topic, "how clean is clean," is one that has been ongoing and is difficult to determine. The Captain asked if anything new had been decided by the regulators, and added that once the determination is made for Zone H, the rest of the zones will be able to move along more quickly.

Ann Ragan replied that the State's policy is to clean up to residential levels. The national trend is moving toward industrial levels, however, there is no set formula for this. The State would have to look at a cost/benefit analysis to determine the cost savings of cleaning to industrial rather than residential standards.

Virgil Johnston mentioned that Zone H will be used for light industrial purposes as it is now. It will not be used for residential purposes and the decision is holding up the RFI report. Ann Ragan pointed out that leasing is being allowed, and the decision is not holding up leasing. Mr. Johnston responded that it is, however, holding up conveyance which is also being worked on.

Jim Moore asked if anybody knows when the Zone H RFI report will be finalized. Joe Bowers replied that it would be completed by early 1996. Mr. Moore also asked if we know what contaminants are in the ground at Zone H. Mr. Haverkost answered yes, but that we do not know the action levels for cleanup. Mr. Moore asked why this information has not been provided to the RAB. Tony Hunt responded that it has, in fact, been provided.

Mr. Moore also asked that if nothing has been found at some of the parcels in Zone H, why can't the individual parcels be leased or transferred. Tony Hunt said that is exactly what is being done, but background and risk must first be determined. Background concentrations must be determined in the dredge/fill material that makes up Zone H. Background sampling took place at the same time as the other Zone H sampling, and is being reviewed as part of the Zone H RFI report by the regulators.

Captain Augustin asked if background has been established yet. SCDHEC answered not yet, that data is currently being reviewed.

Lou Mintz stated that he requested and received a report from SouthDiv that established that $439,000 has been spend on sampling and $2.6 million on laboratory analyses, yet he still doesn't know what's been found at the Base. Mr. Mintz wants to know where the

money is going and where to get better information. He also stated that he feels he's not getting his money's worth, and very little has been accomplished for the money spent. Captain Augustin explained that Daryle Fontenot will address expenditures later in the presentation.

Captain Augustin recapped the previous discussion about background. Jeri Johnson stated that it seems to be a policy issue that's holding up the process. Ann Ragan explained that SCDHEC is in the middle of re-evaluating its policy, but for now, the directive is to clean up to residential levels.

Lou Mintz questioned Ms. Ragan if she was saying that the State is directing the Navy to clean up the Base to a level acceptable for playgrounds. Ms. Ragan said that until the State can get policy changes approved, they will continue to require cleanup to residential levels. Furthermore, it is in the RAB's best interest to clean to residential levels, since it may only cost a little more, and provides greater flexibility in lease and transfer opportunities.

Captain Augustin stated that this is a good issue for the RAB to "advise" on. Susan Floyd stated that she would like to see the cleanup level remain at residential standards.

Ginny Gray, E/A&H Task Order Manager presented material for Zones C and I. A handout of this material is attached to the minutes. Sampling for Zones C and I ran concurrently and was finished this summer. Zone C has 2 Solid Waste Management Units (SWMUs) and 11 Areas of Concern (AOCs), and 249 soil samples were collected. Zone I has 2 Solid Waste Management Units 15 Areas of Concern, and 176 soil samples were collected. E/A&H has started the report preparation stage for both of these zones. All geotechnical data, chemical analytical data, and engineering parameters data that will be used in the Corrective Measures Study has been received. At the end of the week a final QA/QC check will be completed on the validated data.

QA/QC stands for Quality Assurance/Quality Control. Once laboratory analysis is finished, validators look at the data for completeness and accuracy saying it is valid and useable for the RFI Report. This validated data then goes through a QA/QC check at E/A&H to verify that the data package has no errors.

Lou Mintz asked what the lab does, since E/A&H has to go through all these additional steps, and why doesn't E/A&H just run the analysis. Ms. Gray explained that the lab analyzes the samples and produces analytical results. E/A&H does not have the equipment to analyze these samples. The lab has specialized instrumentation and procedures that they must follow. They have method detection limits, practical quantitation limits, and a system of checks and balances they use to analyze and double check the data they produce.

Susan Floyd requested that someone come up with a step by step diagram or flow chart to describe the data validation process. Ms. Gray confirmed that one of the E/A&H

chemists could provide that information.

Ms. Gray gave a quick run down of the non-critical sections of the document that have been produced. The critical sections have not yet been developed because E/A&H must wait for the Zone H technical issues to be resolved before they can continue with the RFI reports for any of the other zones. E/A&H is completing all the sections of the report that they can so when the technical issues are resolved, they can move ahead quickly to produce the entire document.

Susan Floyd asked if any re-sampling needs to be done and will any areas of concern drop off, ie. require no further action. Ms. Gray confirmed that all sampling has been completed and that she does not yet know if any areas of concern will drop off.

Jim Moore asked if the Corrective Action Management Plan (CAMP) schedule date of December 18th will be met for these Zones. Ms. Gray answered that no, they will not. Mr. Moore then asked how the State felt about that. Joe Bowers, SCDHEC answered that they realize there are a number of difficult issues that need to be ironed out and they're doing their best to resolve them and minimize delays. Hopefully the reports will be delayed only a few more weeks and available at the January RAB meeting.

Jim Moore asked for clarification on the background issue, specifically, Zone H is comprised of dredge material, but Zones C and I are not, so how can the technical issues for H be the same as for C and I. Ms. Gray explained that the soil type and data may be different in each zone, but the statistical approach for determining background will be the same, and that's what the regulators are working on.

Susan Floyd wanted to verify that once the analytical approach for determining background has been decided upon for H, that the completion of the other Zone's RFI reports will move along at a rapid pace. Captain Augustin, E/A&H, and Joe Bowers all concurred.

Lou Mintz expressed his disappointment that this process has taken so long, and that it seems that in all the years environmental cleanup has been ongoing across the country, that procedures such as the statistical approach for determining background should have been worked out and standardized years ago.

Dave Backus provided an update on Zone E, the Controlled Industrial Area (CIA), which comprises 120 acres. Sampling is currently underway at this Zone. Zone E comprises 26 SWMUs, 54 AOCs, and 25 supplemental well locations. In Zone E there are so many sampling points, that a typical grid method didn't work. With approval from the regulatory agencies, E/A&H used a supplemental sampling plan. E/A&H started field work in August 1995.

Lou Mintz asked about the discrepancies in numbers between Tony Hunt's presentations and Mr. Backus' presentation. Mr. Backus stated that it may be due to a change in the

work plan.

The question, what is a wipe sample, was asked. Mr. Backus explained that it is a sample from a floor, wall or other surface that is collected with a clean, sterile swab.

Mr. Backus continued by providing statistics on proposed and completed sampling through October 31, 1995. This material can be found in the handout attached to these minutes. Rotosonic drilling will start at Zone E once it is completed at Zones A and B.

Mr. Backus explained that there are 10 different kinds of underground utilities in the CIA which made choosing sampling points very difficult. E/A&H hired a subcontractor to locate these utilities. Out of 430 boring locations, they only had to make one change in sampling locations as established in the workplan.

Susan Floyd inquired about the type of utilities that are underground and Mr. Backus listed electrical, steam, and oxygen as a few. Mr. Backus also explained that experienced shipyard workers were used extensively to collect preliminary information on the utilities.

In response to the concern about using local labor, Mr. Backus offered that the drilling subcontractor being used, Atlantic Drilling, is a local firm, and another local firm was hired to pull cores from the drilled holes.

E/A&H is well ahead of schedule for Zone E. Samples are being sent to the lab and analyzed as they are being collected. The lab analyzes and returns the data in 30 days. Then, 30 days after receipt of data, data is validated. The RFI report is scheduled for November 1996.

A discussion about the lab's 30 day turnaround ensued. The normal turnaround time is 30 days, which is the standard for all Zones. A quicker turnaround can be contracted but it would cost a premium. Typically, the labs analyze the samples within a few days but need the remainder of the time to process the data.

LCDR Nick Cimorrelli stated that most of Zone E is covered in concrete and asphalt, but the sampling plan doesn't show that those materials will be sampled. Mr. Backus explained that the numbers for soil also include some asphalt samples, however, most are soil because they are primarily interested in environmental impact, (what affects the soil and water).

Captain Augustin announced that the presentation for Zones A and B would not be given due to time constraints. The handout material for that presentation is included in the attachments to these minutes.

Tony Hunt mentioned that the rotosonic drill rig will be in the field for the remainder of the week. If anyone wants to see how it works, contact the Base Closure Office.

Lawson Anderson, Task Order Manger for Zones A and B, added that rotosonic drilling is more productive than conventional drilling, allowing for 3 or 4 wells to be completed in one day opposed to only 1 or 2 using conventional methods.

Daryle Fontenot gave a presentation on where the money for the RCRA Facility Investigation is going. $22 million has been budgeted as of October 31, 1995, $6.7 million has been spent of which 50% has gone to five laboratories, 30% to E/A&H for labor and overhead, 5% for drilling and boring subcontractors, and 15% for Other Direct Costs (ODCs) which include document reproduction, mail, freight, supplies, rental equipment and travel. The $22 million includes funding for the RCRA Facility Investigation as well as the Corrective Measures Study.

Van Robinson asked if $22 million is the final figure since more funding is still needed for Zones J, K, and L. Mr. Fontenot responded that the final figure will probably be more like $27 million.

Lou Mintz asked what the 30% of funds that have gone to E/A&H is for. Mr. Fontenot explained it is for labor including geologists, drillers, engineers, and field technicians. Mr. Mintz also asked if E/A&H's award fee (profit) is included in these numbers, how often is the award fee, and how much. Mr. Fontenot explained that the award fee is not included in these numbers, is administered every six months, and the total dollar amount for the past four years is approximately $400,000.

Mr. Fontenot continued by providing information on total costs to date by zone. This information can be found in the attachments to these minutes.

Ann Ragan asked if the unspent balance of the $22 million is in the bank, waiting to be spent. Mr. Fontenot confirmed but clarified that it has already been allocated by Zone. Mrs. Floyd asked who is supervising the money and its allocation. Mr. Fontenot responded that Southern Division is in charge of the money.

Mr. Fontenot presented information on local subcontractors. E/A&H has invested $628,618 in local subcontractors to date.

Mr. Mintz stated that he received information reporting that $2 million has been spent on laboratories. Mr. Fontenot explained that the $628,618 spent on local subcontractors does not encompass all the lab work that is being completed. Dr. Jim Speakman, E/A&H, added that 5 national labs are being used and include Pace, with facilities nation-wide, Savannah, which has facilities in a number of states, and CompuChem, based out of North Carolina. Dr. Speakman also added that the current contracts are expiring and new contracts will be awarded. E/A&H is taking measures to include local labs with the appropriate qualifications.

8. Update on Redevelopment Authority Action

Virgil Johnston announced that the Border Patrol favors going to Arkansas but the RDA has picked up another group which will provide about the same number of jobs and request the same number of buildings. RDA is looking forward to leasing about 85% of the shipyard. Quite a few people have come in and have requested property for the short term, but once they find out how long the process takes, they lose interest.

CMCC is the biggest contender for the shipyard right now but they are getting disillusioned with the length of the process. If the RDA loses CMCC, there isn't anyone else looking to take over the shipyard.

Susan Floyd asked what the problem is with the Finding of Suitability for Lease (FOSL) process. Mr. Johnston answered that there are so many of them and they each take a couple of months. So far, three leases have been finalized; one for the Post Office and one for the Marina, and one for Drydock 5, others are in the works.

A general discussion followed, regarding the amount of time it takes each group to review and approve FOSLs. Ann Ragan stated that SCDHEC has provided comments on over 75 Buildings and asked if there is any way to track and prioritize them. Further she asked how many buildings the RDA has asked to lease. Mrs. Floyd asked since SCDHEC has moved the FOSLs along, if the holdup is by the Navy.

Captain Nold responded by reminding everyone that the Naval Base does not officially shut down operations until April 1, 1996. The closure process is supposed to make the property available on that date. Everything that is leased before that time is above and beyond what is required. Captain Nold expressed his frustration with the length of the process as well, but reminded everyone that they're dealing with a process involving a number of agencies and lots of paperwork, and there's no way around it. The Navy and Southern Division are dedicated to the process and will continue to do their best in the cleanup and closure process.

Jim Berotti from Southern Division added that he was encouraged by this discussion. He sees the cleanup team as a center hub for the cleanup and closure. The cleanup team is responsible for many of the important technical decisions relating to the RFI, and is also relied on heavily by the RDA in their efforts to lease and convey the property. Perhaps priorities need to be decided regarding the cleanup team's resources.

A discussion regarding priorities followed and concluded with the RDA agreeing to provide a list of their FOSL priorities.

9. Shipyard Radiological Surveys Update

Tom Gerken provided a progress report on the Shipyard Radiological Surveys. A handout with supporting information is attached to these minutes. Surveys are in the final stages for both the Shipyard and Naval Base. The shipyard has the funding to complete the

radiological release by April 1, 1996. As explained previously, they are looking for 2 types of radioactive materials, NNPP RAM and GRAM. Survey and release plans have been prepared and approved by the Navy, EPA, and SCDHEC.

Mr. Gerken explained that they found about 20 sites where very low levels of radioactivity was detected. Remediation has taken place on most of the affected areas. The DRMO is the only area that will not be remediated prior to closure because it will still be in use after the Shipyard closes. Another organization will complete the DRMO surveys. Both SC DHEC and EPA overcheck their results through site visits.

10. Other Questions and Comments

Captain Augustin requested that due to time constraints, if there were any additional questions, to contact the appropriate person after the meeting.

11. Other Business.

Captain Augustin announced that the hospital will provide anyone who is interested with an escort to their car. Anyone interested in seeing the rotosonic drill rig in action this week should call the Base Closure Office.

Ann Ragan introduced the new SCDHEC project engineer, Jeannie Olano, who will be assisting with the Charleston project.

The next RAB meeting will be held on Tuesday December 12 in the afternoon. Check the next meeting agenda for specifics on time and location.

12. Adjournment

Summary of RAB Recommendations and Suggestions

- Susan Floyd stated that she would like to see cleanup required at residential standards.
- Multiple RAB members asked for greater detail on Zone H sampling results.
- Lou Mintz requested expenditure information for Other Direct Charges and Laboratories
- E/&AH will provide a flow diagram of validation process

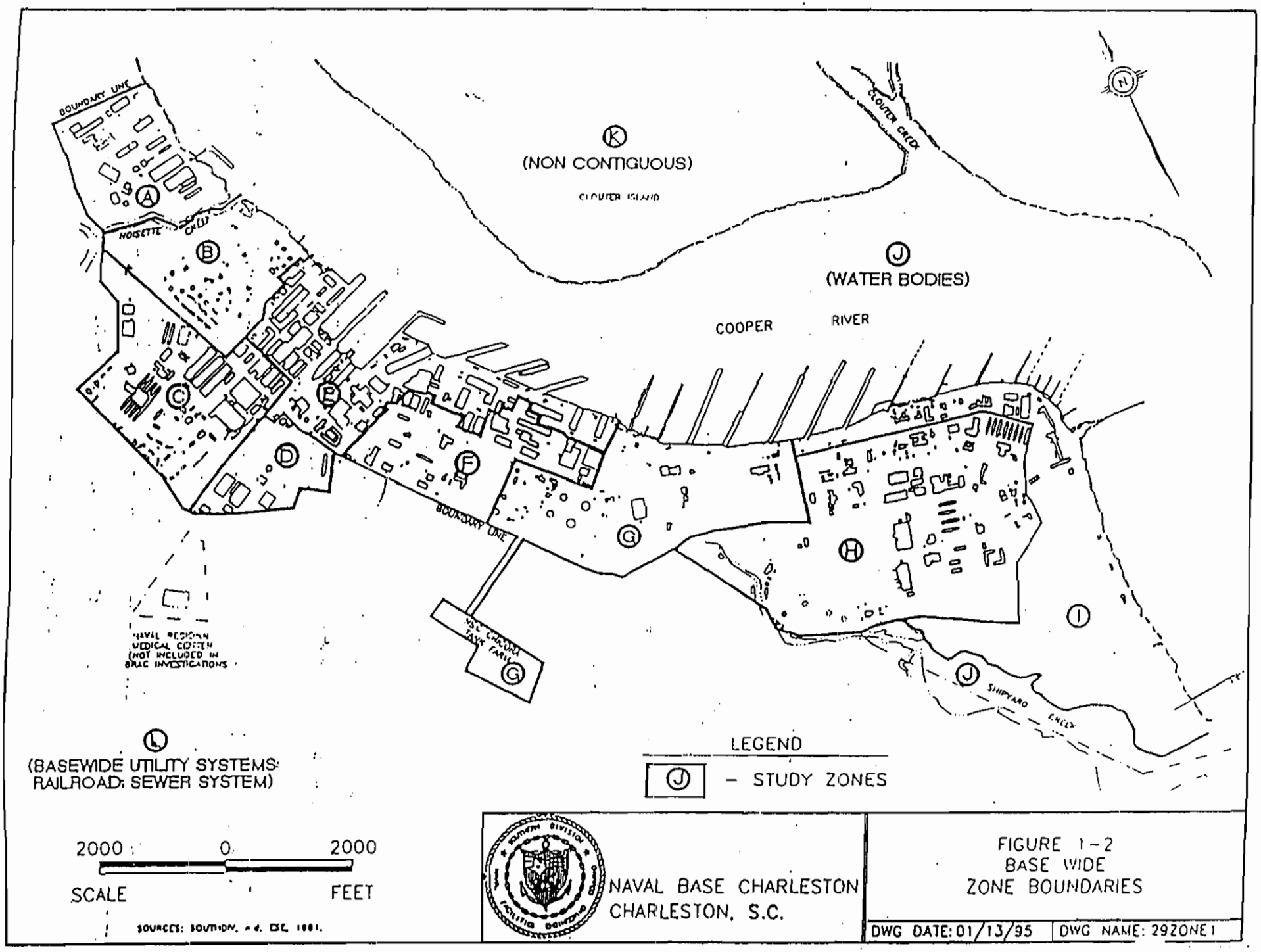
Attachments to Minutes

(1) November 14, 1995 RAB Meeting Agenda
(2) RFI Progress Report for October 1995
(3) Zone H Site Summary
(4) Zones C and I Site Summary
(5) Zone E Site Summary
(6) Zones A and B Site Summary
(7) RFI Expenditures "Where Does All That Money Go?"
(8) Radiological Controls Progress Report

Minutes approved by: _____ _____

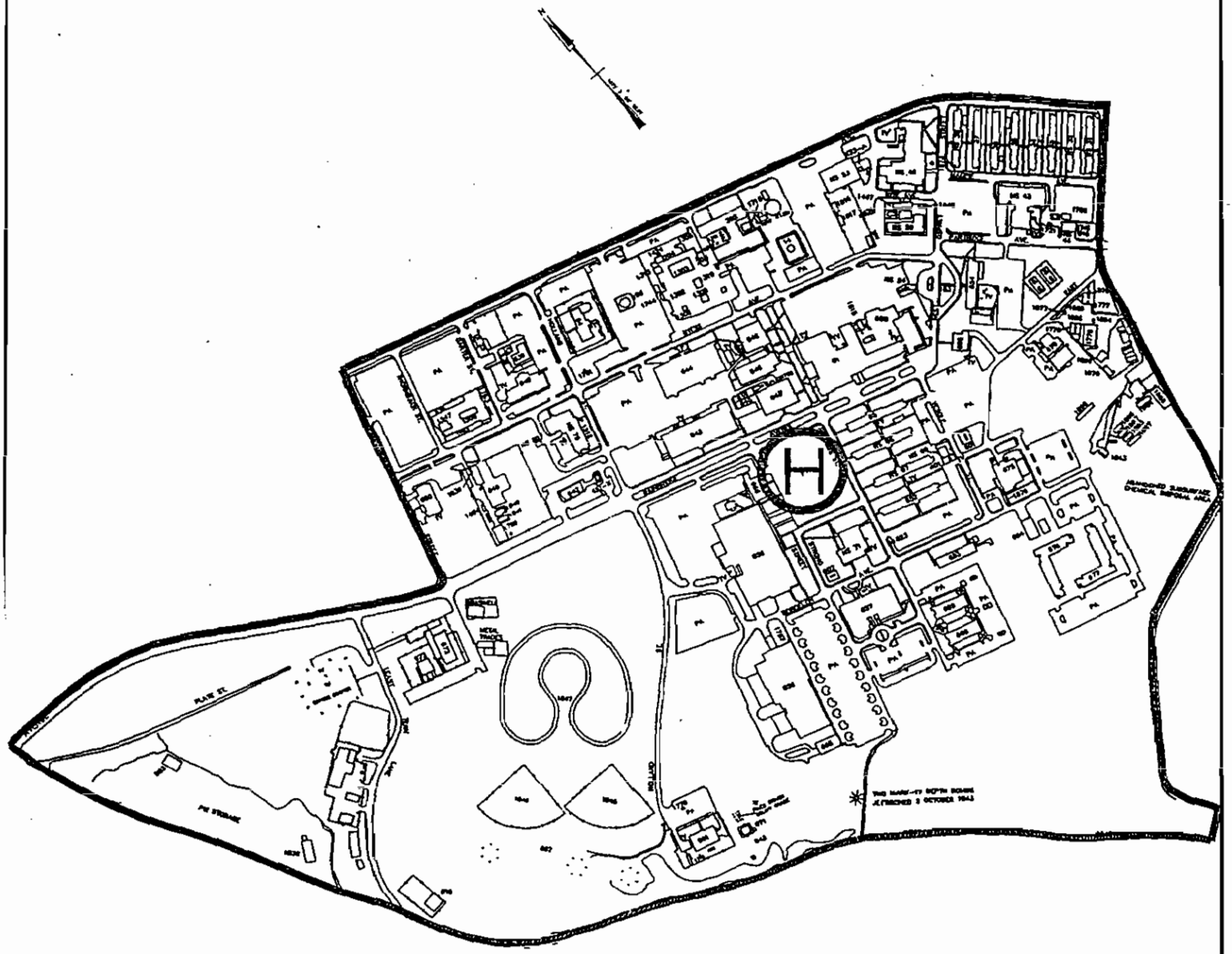
J.H. Augustin
CAPT, CEC, USN
Co-Chairman

Don Harbert
Co-Chairman


BOUNDARY LINE
NOSETTE CREEK
A
B
C
D
E
F
G
H
I
J
K
L
(NON CONTIGUOUS)
CLOUTER ISLAND
CLOUTER CREEK
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NAVAL REGIONAL MEDICAL CENTER (NOT INCLUDED IN BRAC INVESTIGATIONS
NAVAL BASE CHARLESTON TANK FARM
SHIPYARD CREEK
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
J - STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES: SOUTHDIV, and ESE, 1991.
NAVAL BASE CHARLESTON
CHARLESTON, S.C.
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE: 01/13/95
DWG NAME: 29ZONE1

NAVAL BASE CHARLESTON RFI
ZONE H SITE SUMMARY

- 12 SWMUs (SOLID WASTE MANAGEMENT UNITS)
- 18 AOCs (AREAS OF CONCERN)
- 719 SOIL SAMPLES
- 73 SHALLOW MONITORING WELLS
- 19 DEEP MONITORING WELLS



ENSAFE/ALLEN & HOSHALL CONCLUSIONS

- **No COC's**
  AOC 654
  AOC 659
  AOC 660
  AOC 662

- **Industrial Worker Exposures**
  SWMU [Includes SWMU 19, 20, 121]
  AOC 655

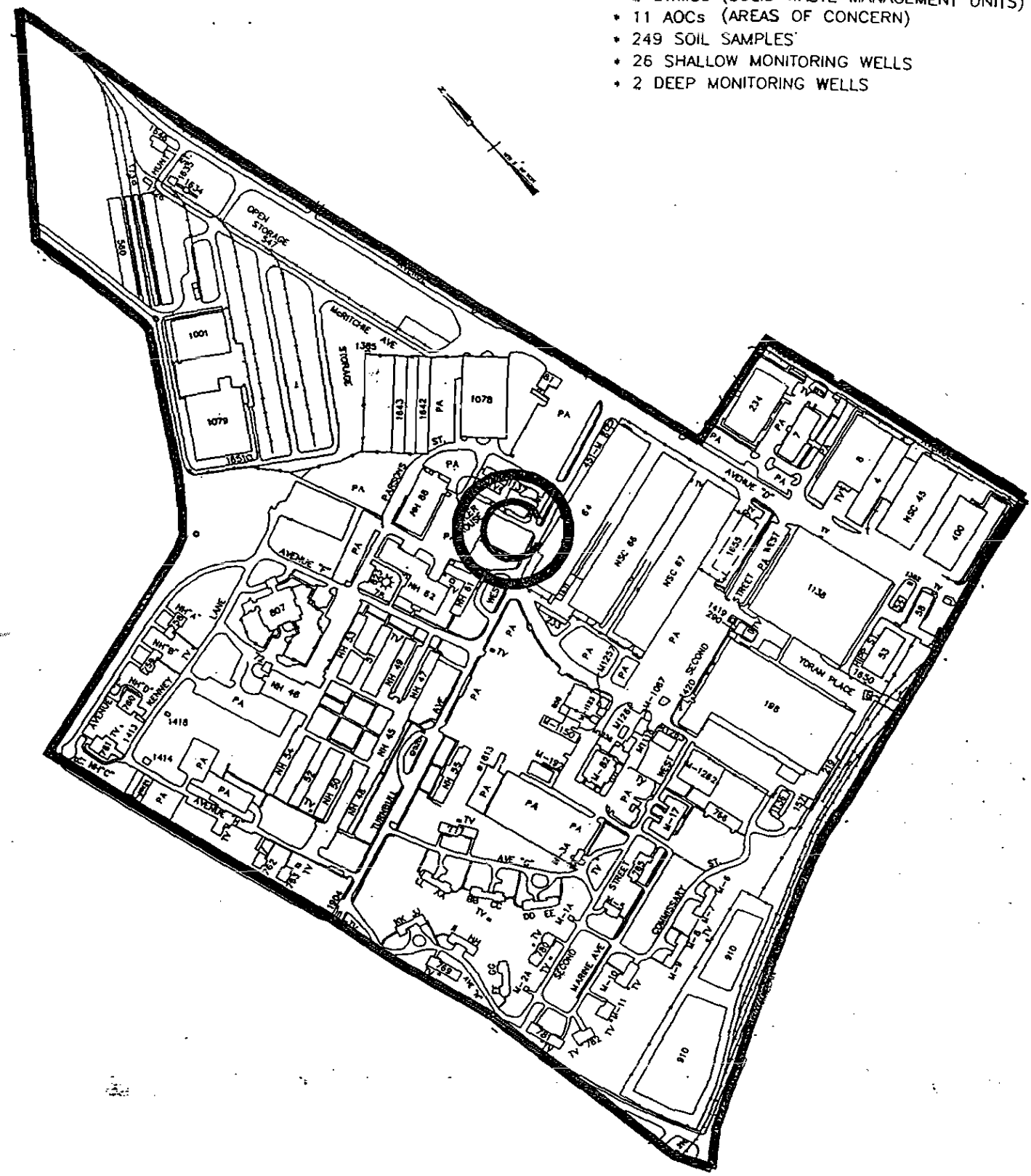
- **Residential Exposure**
  The Remainder

TECHNICAL DECISIONS

TOPIC	ZONE H RFI	COMMENTS
Groundwater Classification	Potable	Saline Conditions Public Supply
Cleanup Criteria Background Conditions vs. Risk-Based	Risk-Based	Lead Agency
Future Land Use Residential vs. Industrial	Both Assessed	No-Action Sites Clean-up Extent
Land Surface Improvements	Bare Soil (Pavements Removed)	Relates to Future Use

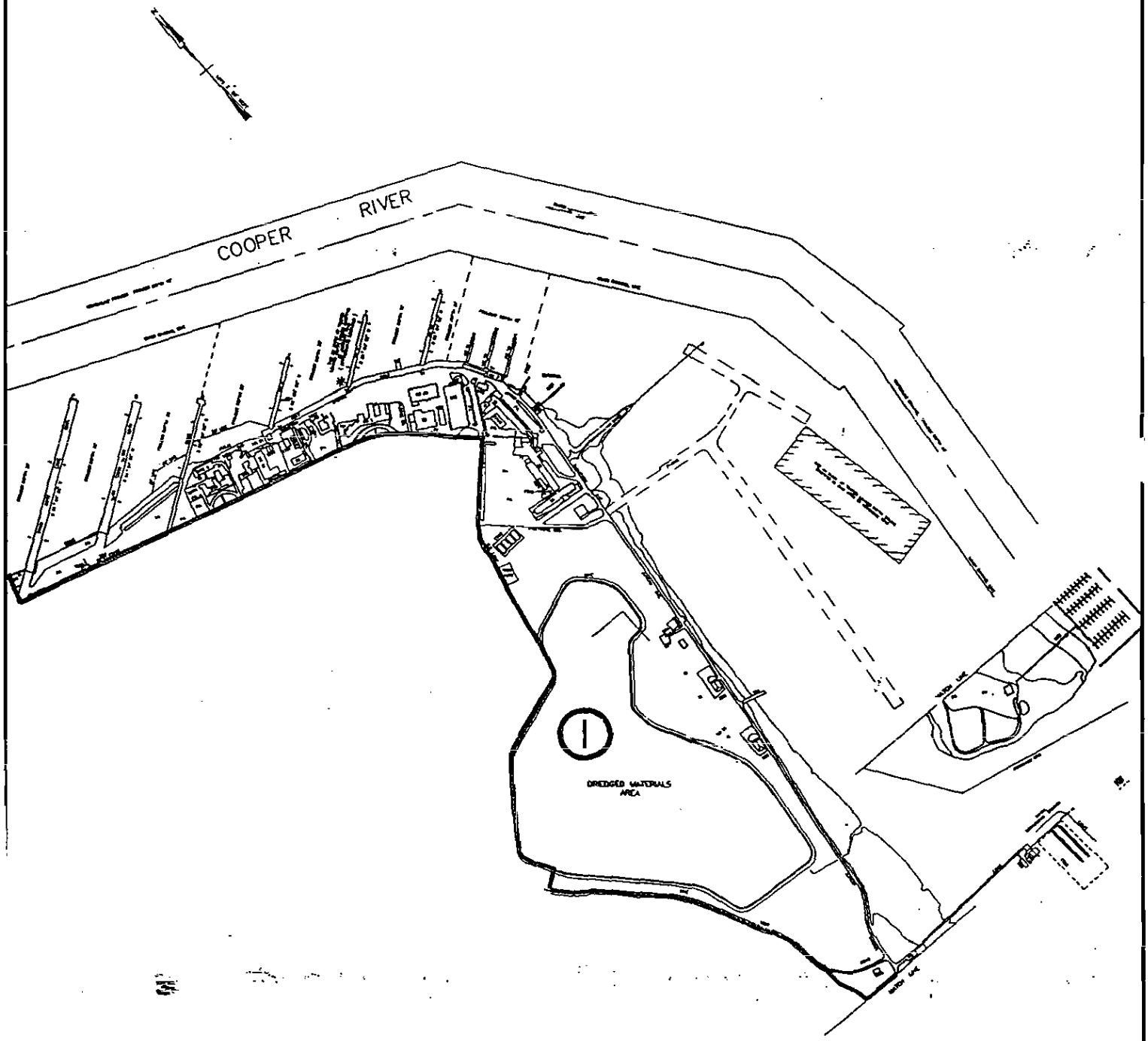
NAVAL BASE CHARLESTON RFI
ZONE C SITE SUMMARY

- 2 SWMUs (SOLID WASTE MANAGEMENT UNITS)
- 11 AOCs (AREAS OF CONCERN)
- 249 SOIL SAMPLES
- 26 SHALLOW MONITORING WELLS
- 2 DEEP MONITORING WELLS



NAVAL BASE CHARLESTON RFI
ZONE I SITE SUMMARY

- 2 SWMUs (SOLID WASTE MANAGEMENT UNITS)
- 15 AOCs (AREAS OF CONCERN)
- 176 SOIL SAMPLES
- 37 SHALLOW MONITORING WELLS
- 19 DEEP MONITORING WELLS



Status of Zones C & I

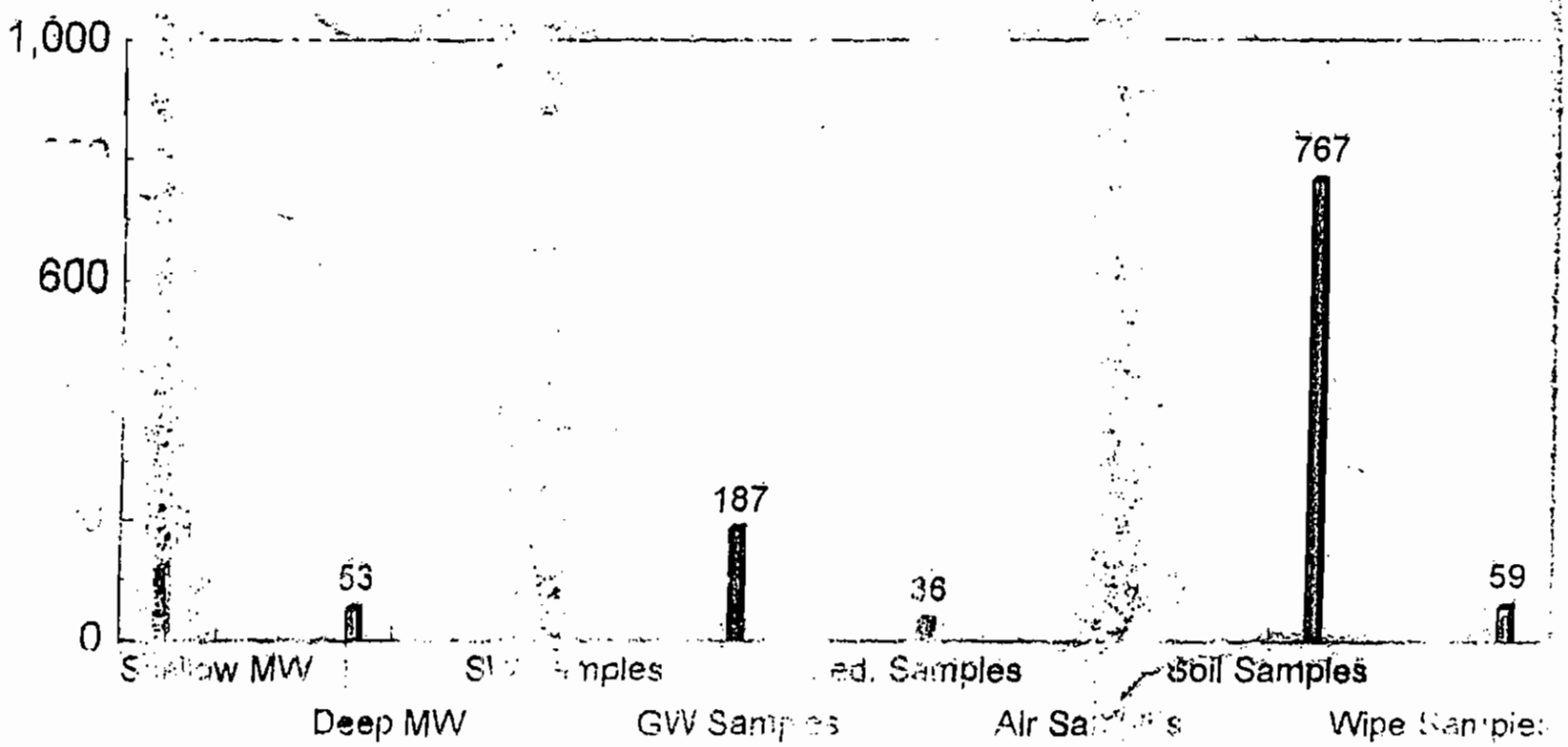
- Analytical data have been received and validated

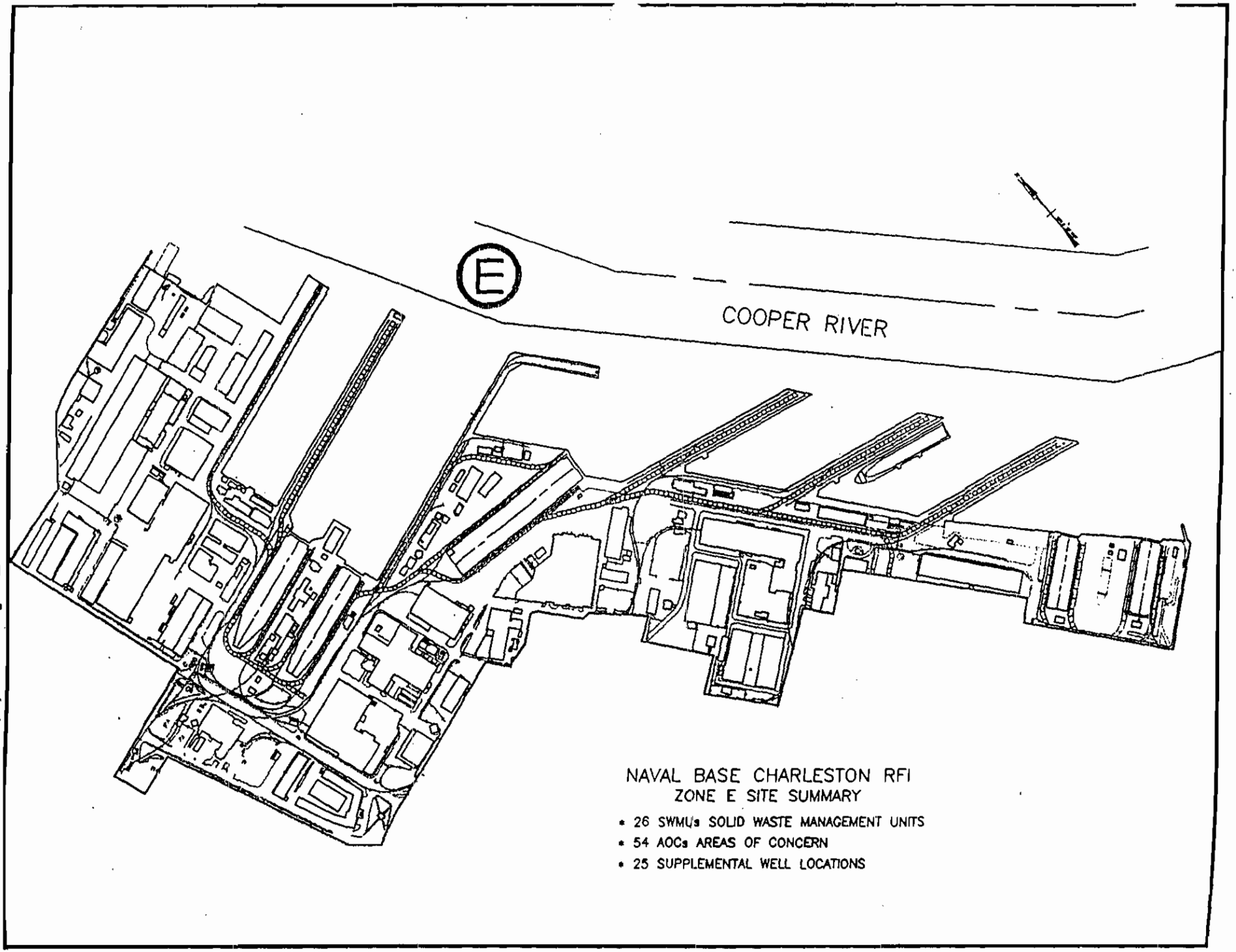
- Sections 1, 2, & 3 which include the introduction, physical setting, and background information have been prepared, peer reviewed, and tech edited.

- The critical sections (*Nature & Extent of Contamination*, *Fate & Transport*, the *Baseline Risk Assessment,* and *Conclusions*) are on hold pending resolution of the technical issues in Zone H.

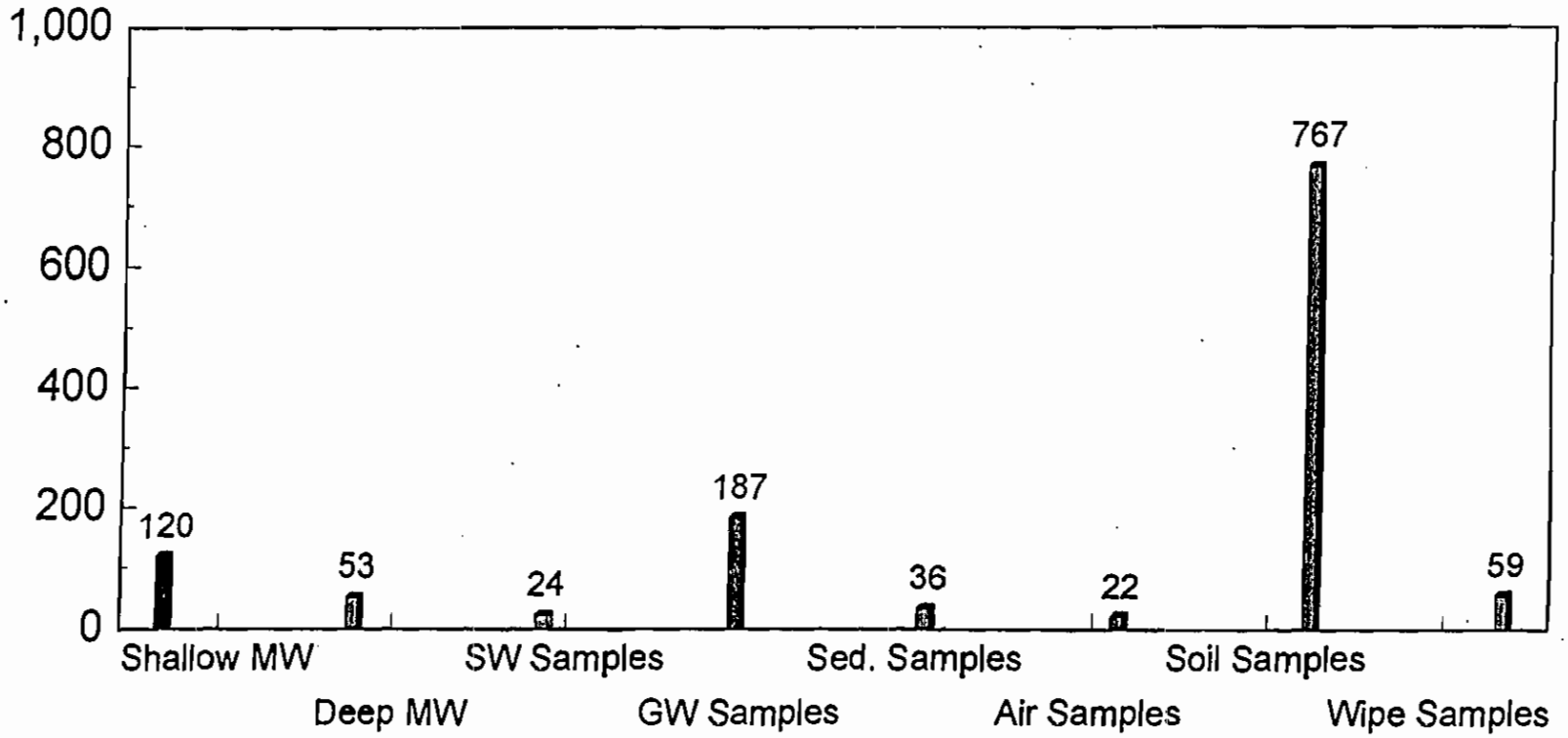
- Data evaluation and interpretation will be initiated early next week.

Naval Base Charleston RFI
Zone E - Proposed Samples



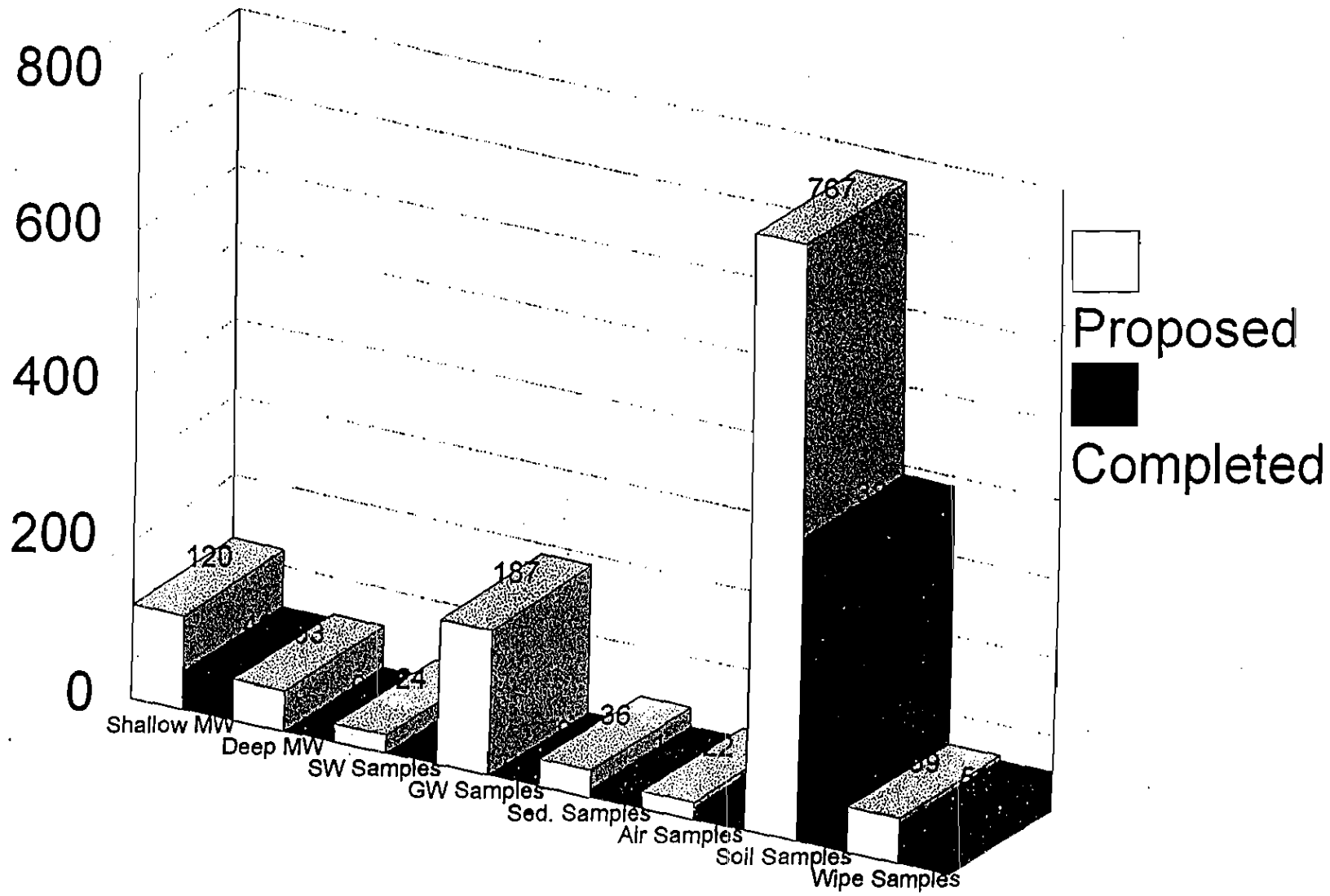

E
COOPER RIVER
NAVAL BASE CHARLESTON RFI
ZONE E SITE SUMMARY
• 26 SWMUs SOLID WASTE MANAGEMENT UNITS
• 54 AOCs AREAS OF CONCERN
• 25 SUPPLEMENTAL WELL LOCATIONS

Naval Base Charleston RFI
Zone E - Proposed Samples

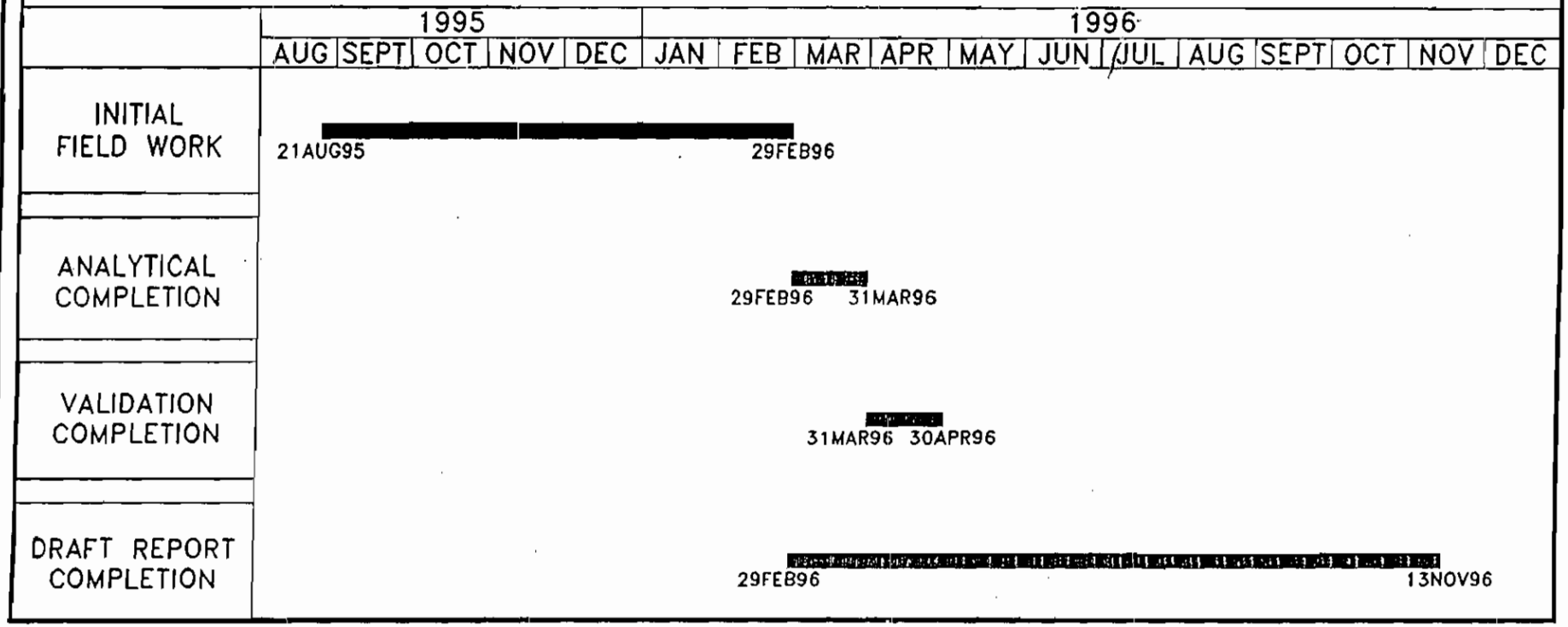


NAVAL BASE CHARLESTON RFI

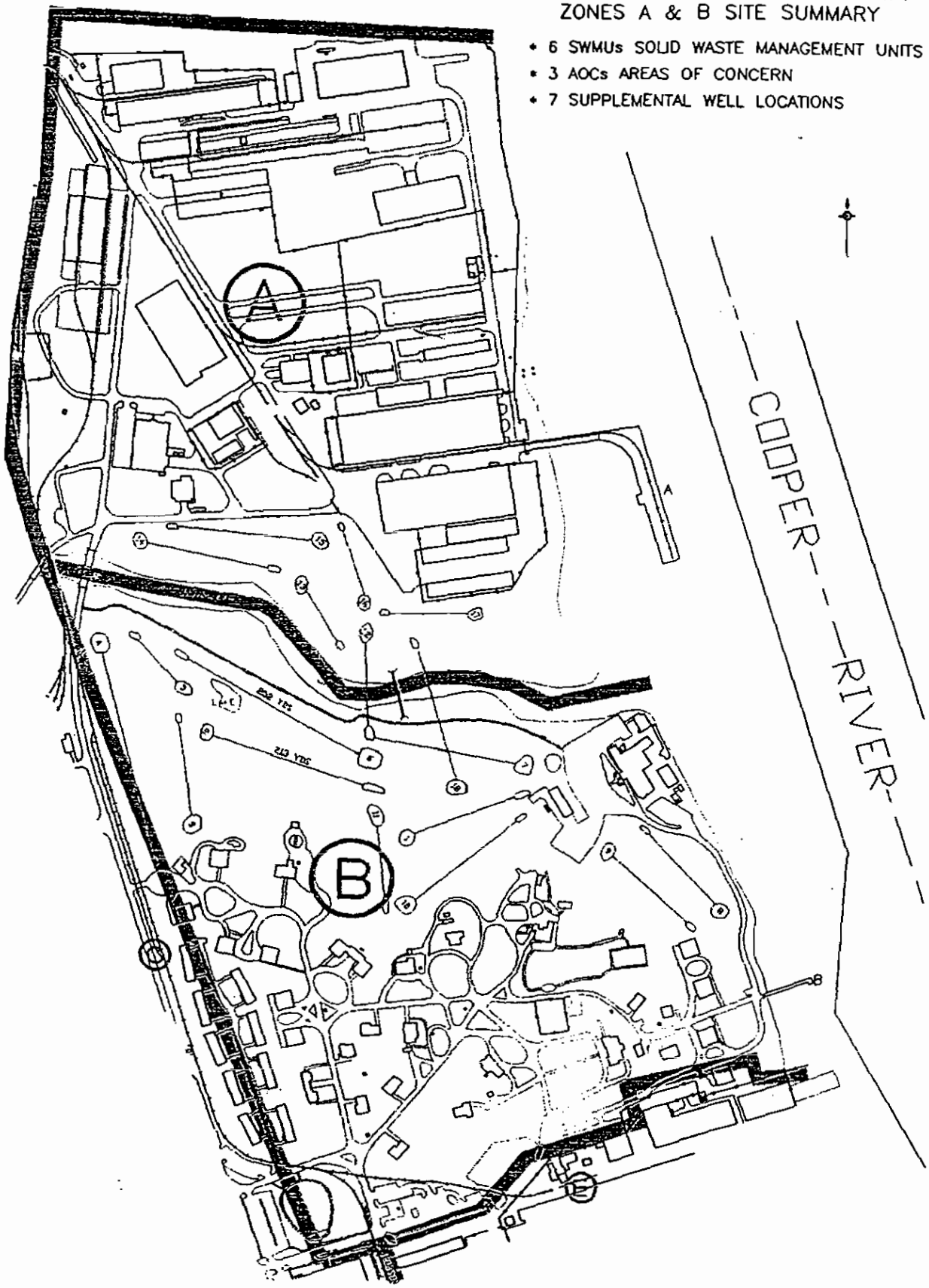
PROGRESS THROUGH OCTOBER 31, 1995



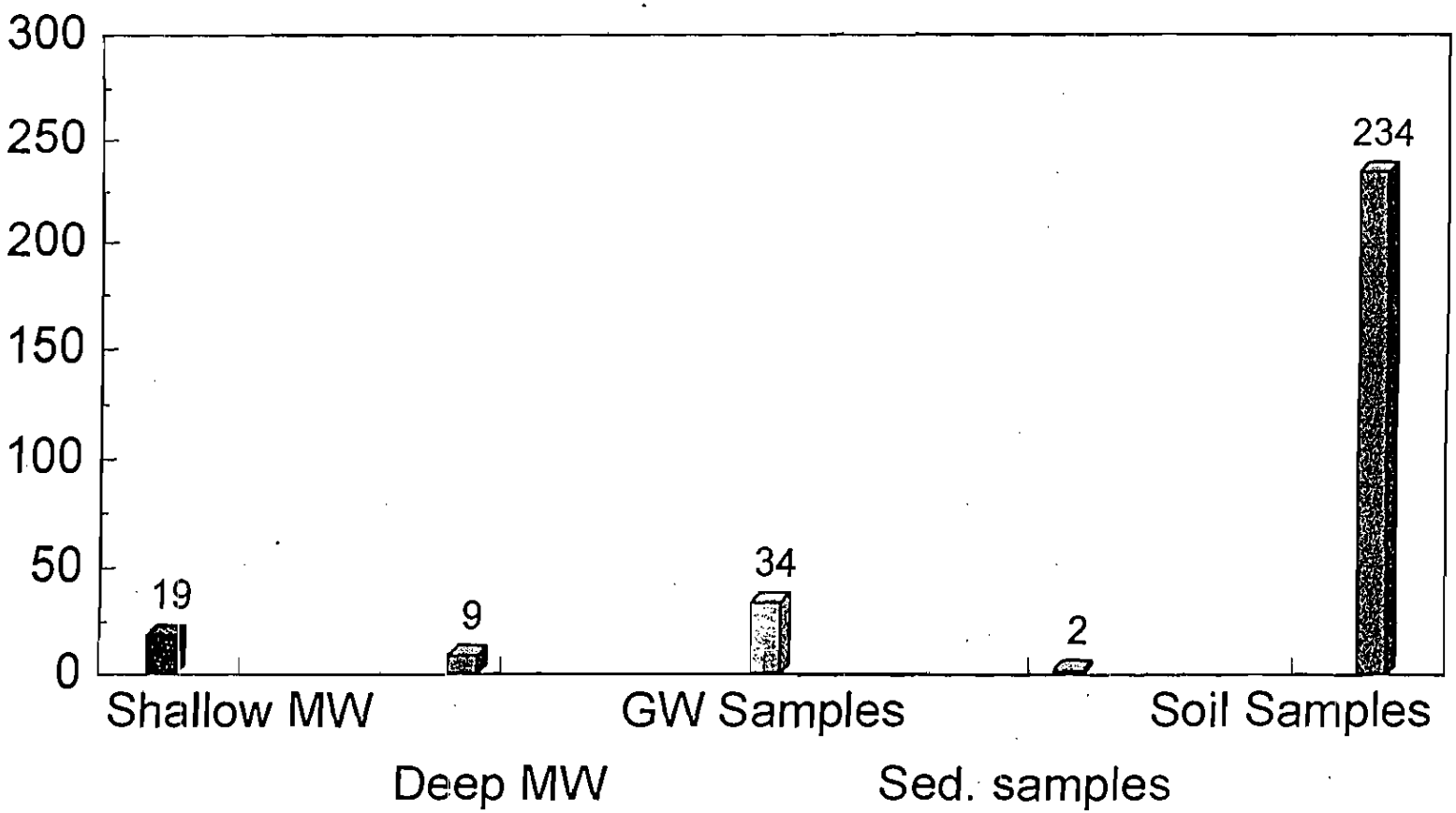
NAVAL BASE CHARLESTON RFI
ZONES E – FIELD INVESTIGATION SCHEDULE



DWG NAME:29ZNEFIS

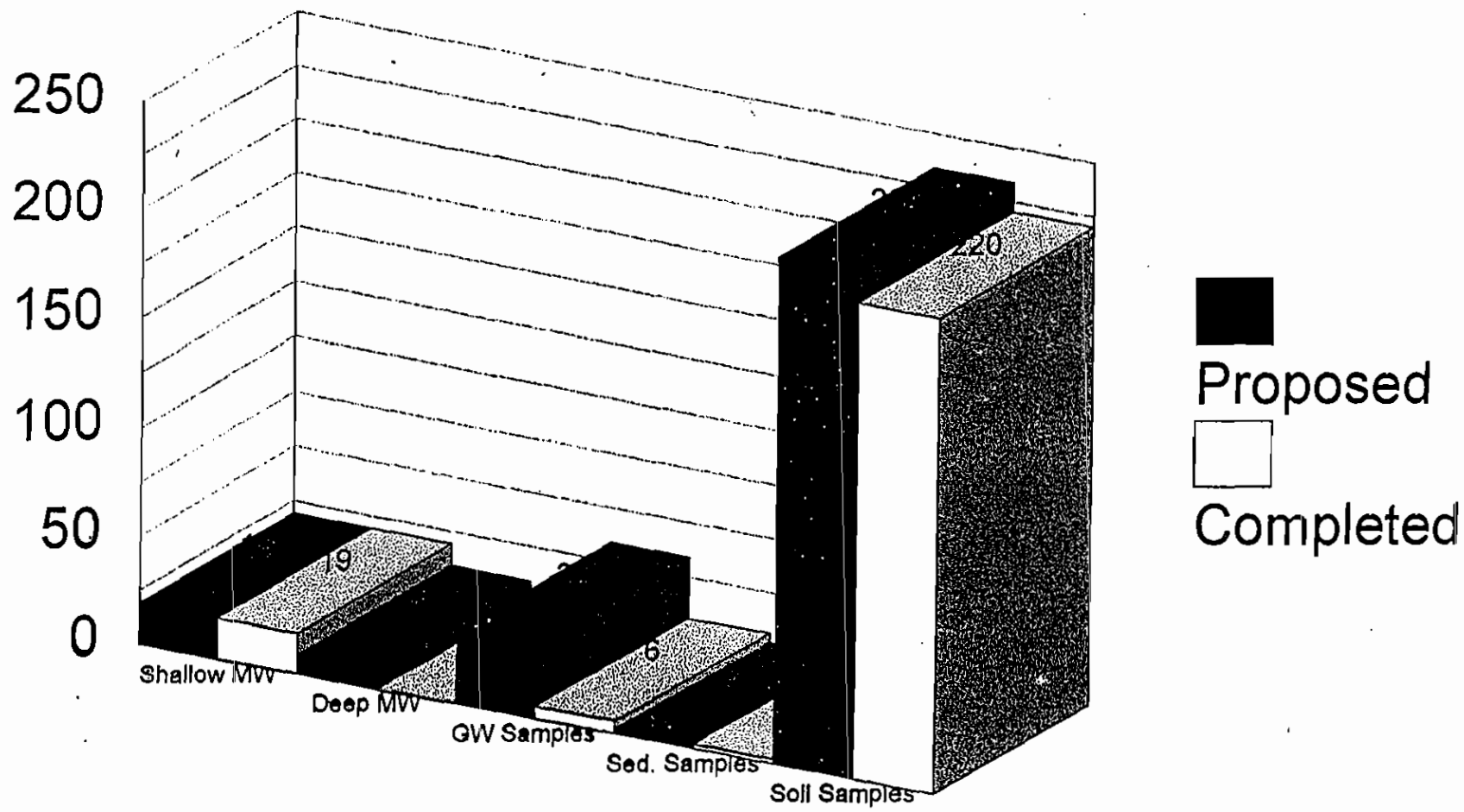

NAVAL BASE CHARLESTON RFI
ZONES A & B SITE SUMMARY
• 6 SWMUs SOLID WASTE MANAGEMENT UNITS
• 3 AOCs AREAS OF CONCERN
• 7 SUPPLEMENTAL WELL LOCATIONS
A
B
COOPER RIVER

Naval Base Charleston RFI
Zones A & B - Proposed Samples

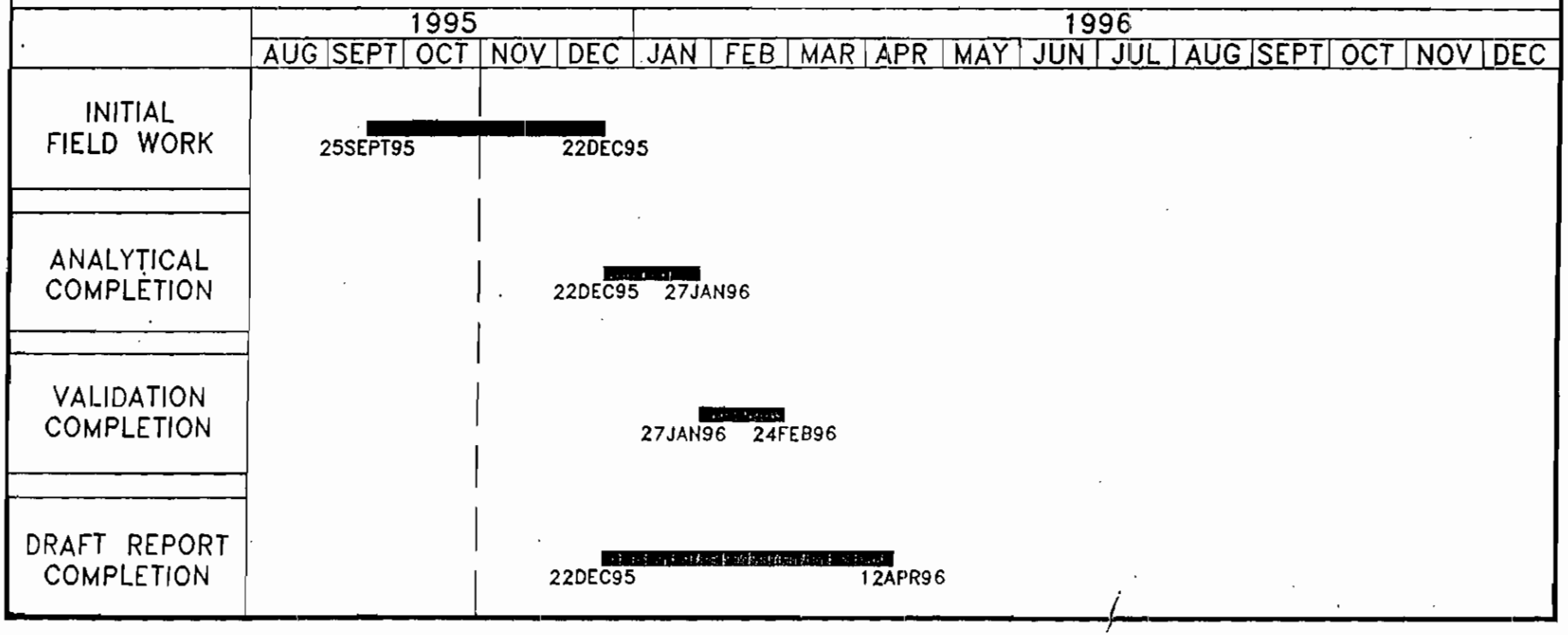


NAVAL BASE CHARLESTON RFI ZONES A & B

PROGRESS THROUGH OCTOBER 31, 1995



NAVAL BASE CHARLESTON RFI
ZONES A & B – FIELD INVESTIGATION SCHEDULE



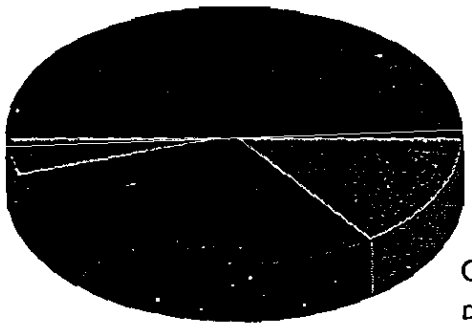
DWG NAME: 29ZNAFIS

Enclosure (1) 1530 Ser 20/0

Where Does All That Money Go?

Charleston NSY Total Budget
$22,225,914.00

Expended
$6,737,771.99



Attachments (7)

E/A&H Total Costs To Date - By Zone

	$ Budgeted	Expended by 10/1/95	% RFI Complete
Pre-BRAC Costs	1,867,526	1,313,661	99%
Base Wide	2,615,925	450,873	16.5%
Zone A	1,000,385	54,443	20.4%
Zone B	611,503	33,672	18.1%
Zone C	1,581,445	580,094	69.3%
Zone E (CIA area)	7,650,932	341,078	17.7%
Zone D (WP only)	13,470		
Zone F (WP only)	28,253	12,415	21%
Zone G (WP only)	37,563		
Zone H	4,202,234	2,733,195	92.8%
Zone I	2,469,197	1,052,013	55.9%
Zone J (WP only)	73,741	81,326	100%
Zone K	Not Yet Budgeted	0	0.0%
Zone L (WP only)	73,741	85,002	85.6%

Supporting the Local Economy

E/A&H is committed to using local businesses. To date, E/A&H has invested $628,618.00 in local subcontractors and service organizations.

E/A&H's Top Five Subcontractors

- Atlantic Drilling - Drilling Services [237K]
- Alliance Drilling - Drilling Services [154K]
- General Engineering Labs - Sampling Services [72K]
- Wright/Padget Associates - Sampling Services [72K]
- Soil Consultants - Drilling and Geotechnical Testing [32K]

Local E/A&H Subcontractors

Subcontractor	$ Invoiced	$ Budgeted
3R	3,612.20	
Alliance	154,321.78	
Alpine	627.57	
Atlantic Drilling	0.00	236,844.21
Burris	206.38	
Butler	1300.00	
Caber	132.50	
Culligan	1885.04	
Depco	3062.62	
Duncan	37.10	
Fennell	1,835.57	
Fenrivac	14,080.12	
Forsberg	6,875.90	
GEL	71,854.83	15,000.00
Hutto	1,531.70	
Metro	1,509.44	
Moore	1,250.00	
NatWeld	1,058.37	
Prime	1,156.64	
SafeCo	2,535.33	
Seigels	773.63	
Sharp	50.91	
Soilcons	31,850.00	
Sunbelt	3,046.19	
Wright/Padget	44,990.00	27,190.00

Total = 628,618.03

PROGRESS REPORT

RELEASE OF THE CHARLESTON NAVAL SHIPYARD AND CHARLESTON NAVAL BASE FROM RADIOLOGICAL CONTROLS

14 NOVEMBER 1995

OVERALL STATUS - The final release surveys for both the Shipyard and Naval Base for radioactivity associated with the Naval Nuclear Propulsion Program (NNPP RAM) and for general radioactivity (GRAM) are nearing completion. The shipyard has the manpower and funding to complete the radiological release of the Shipyard and Naval Base by 1 April 1996.

NNPP RAM & GRAM - As was explained in prior RAB briefings, there are two types of radioactive materials involved in our release surveys. NNPP RAM consists of radioactivity produced as a result of our maintenance work on nuclear submarines. The radioisotope of concern is Cobalt 60. GRAM is radioactivity associated with activities such as painting luminous dial instruments or use of some non-consumable welding rods. The two primary radioisotopes associated with GRAM surveys are Radium 226 and Thorium 232.

RELEASE PLANS - Survey and release plans have been prepared and approved by the Navy. In addition, the South Carolina Department of Health and Environmental Control (DHEC) and The United States Environmental Protection Agency (EPA) have reviewed our plans and agree with them.

Attachments (8)

WHAT WE HAD TO SURVEY

1. NNPP RAM
   5 fixed dry-docks & 1 floating dry-dock.
   17 piers
   2 radiological repair facilities
   Numerous permanent and portable buildings, and other facilities

2. GRAM
   Numerous permanent buildings
   Landfill
   DRMO (Defense Reutilization and Marketing Organization)

WHERE WE STAND - NNPP surveys are progressing well. 94% of production work is complete. We are preparing detailed reports on each area which is surveyed and released. To date we have completed 63% of the final reports. GRAM surveys are also progressing well with 75 % of the production work complete. 55% of the final GRAM reports have been completed.

RESULTS OF OUR SURVEYS - We have found about 20 sites where we detected very low levels of radioactivity. These were areas where we did significant work involving radioactive materials. With rare exceptions, the radioactivity levels found were so low that they could not be detected with sensitive field survey instruments, but could only be detected in solid material samples analyzed by ultra-sensitive laboratory instrumentation. We have already remediated most of the affected areas, and are working to remediate the few remaining ones.

DRMO - We will not complete the survey of the DRMO area prior to closure. This is because DRMO will not close until September 1996, some months after we close. We have conducted preliminary surveys of DRMO and found no abnormal levels. The final surveys of the DRMO area will be done by a successor organization under the technical direction of the Naval Sea Systems Command.

INDEPENDENT OVERCHECKS - Both DHEC and EPA have been at the base conducting overchecks to verify our results. Often this involves weekly visits due to the size and number of the areas requiring survey. In all cases to date, overchecks have confirmed shipyard results. Cooperation by DHEC/EPA in the overcheck surveys has been excellent, particularly in the area of "hot turnover" where facilities are quickly turned over for reuse. An example of such a turnover is the Dry-dock 5 complex.

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR NOVEMBER 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Based on funds expected to receive in FY 96, available funds as a result of cost savings and alternative sampling methods)
  Fully funded: Zones A, B, C, E, H, I
  Funds available, not yet negotiated and awarded: J, L
  Funded for RFI Work Plans only: Zones D, F, G, K

- Remaining to fund for investigation (total requirement of $3.1 Million)
  Zones D, F, G, K implementation

PROGRESS FOR NOVEMBER

- Resolution of Technical Issues - Progress report by Todd Haverkost, Zone Task Order Manager for Zone H and Project Task Order Manager, E/A&H.

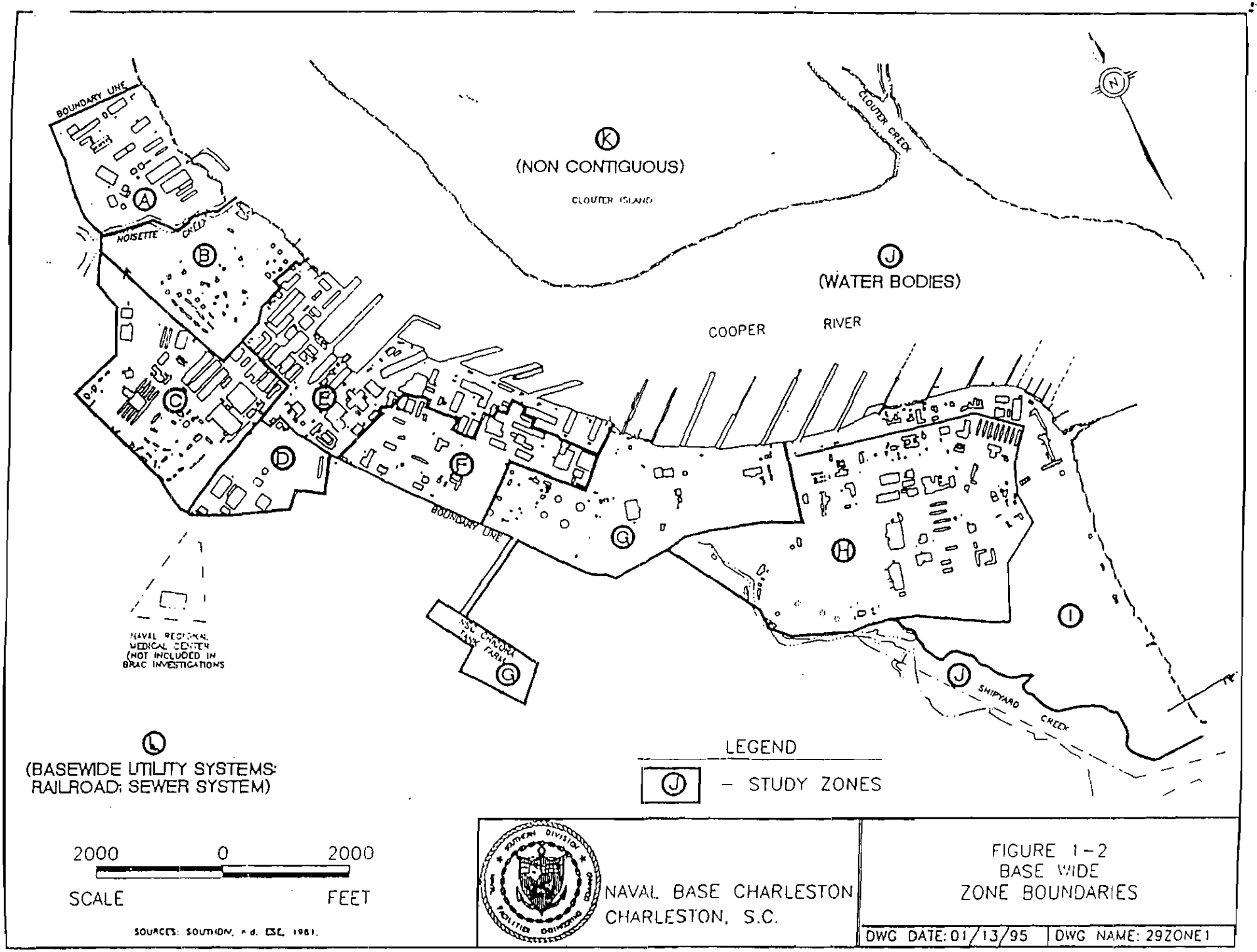
- Progress in Zones A and B- Todd Haverkost.

- Interim Measures utilizing Shipyard Detachment as a resource - Brian Stockmaster.

- Zones J and L work plan comments resolved and final document submitted.

PROJECTED ACTIVITY FOR DECEMBER

- Prepare and submit Zone H Final RFI report.
- Continue groundwater monitoring well installation and begin quarterly sampling in Zone E.
- Continue groundwater monitoring well installation and begin quarterly sampling in Zones A & B.


BOUNDARY LINE
NOISETTE CREEK
(NON CONTIGUOUS)
CLOUTER ISLAND
CLOUTER CREEK
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NAVAL REGIONAL MEDICAL CENTER (NOT INCLUDED IN BRAC INVESTIGATIONS
NSC CHADWICK FARM
SHIPYARD CREEK
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
- STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES: SOUTHDIV, n.d. ESE, 1981.
NAVAL BASE CHARLESTON
CHARLESTON, S.C.
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE: 01/13/95
DWG NAME: 29ZONE1

NAVAL BASE, CHARLESTON
Environmental Cleanup Program

This fact sheet is one of a series to inform interested citizens about the environmental investigations and cleanup actions at Naval Base, Charleston. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at the Naval Base (803) 743-3940.

TYPICAL SITE CLEANUP

Naval Base, Charleston is conducting environmental cleanup activities with the Environmental Protection Agency and the South Carolina Department of Health and Environmental Control. Because the base is closing, environmental cleanup must occur before property can be transferred to the community. In special cases, however, the Navy and the new tenant may reach an agreement to accommodate an earlier transfer of property. These early transfers have certain restrictions and will not be granted if a health risk is present.

Under the Resource Conservation and Recovery Act (RCRA), a facility must receive a permit and demonstrate that it can operate in an environmentally sound manner as well as show corrective action measures on sites that were not handled this way in the past. Naval Base, Charleston holds such a permit and is following the corrective action measures determined by that permit.

CORRECTIVE ACTION CLEANUP STEPS

1. Preliminary Assessment of Site [RCRA Facility Assessment - RFA]
2. Detailed Investigation of Site [RCRA Facility Investigation - RFI]
3. Evaluation of Best Cleanup Options [Corrective Measures Study - CMS]
4. Site Cleanup, or "Remediation" [Corrective Measures Implementation - CMI]

This fact sheet was developed to describe the major steps that are taken to clean up a typical site. A "site" can be defined as an area (which can vary in size from a few square feet to many acres) where hazardous material is stored, used, or disposed of. At Naval Base, Charleston, approximately four hundred (400) sites have been initially identified. Of these, 165 require no further action, however, the remaining sites must undergo at least part of the process described on the following pages.

We hope this information helps you understand the level of detail required for environmental cleanup. While there are many reports and reviews involved, they are all necessary to ensure that the final cleanup solution is the best one for each site. Our goal is to protect human health and the environment, and the Navy is committed to meeting that goal.

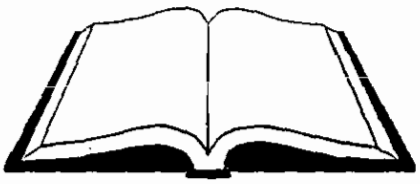
☎ If you have any questions about the environmental cleanup activities at Naval Base, Charleston, please call Lt. Donna Murphy at the Public Affairs Office at (803) 743-3940.

Site Discovery

- A site is identified through a preliminary study as potentially hazardous to human health or the environment. "Hazardous materials" may include chemicals, petroleum products or pesticides.
- The preliminary study consists of a complete visual and historical review of the base.
- Sites may be identified for many reasons including past use, storage, or disposal of hazardous materials.

[❶ PRELIMINARY ASSESSMENT (RFA)]

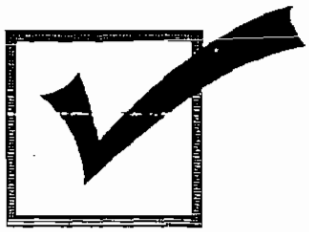
Report



- Once a site is identified, a report describing the site's status must be written.
- The report includes background information on the site and any preliminary analysis of contamination that might be documented.
- The Navy must send the report to environmental agencies for review and comment.

[❶ PRELIMINARY ASSESSMENT (RFA)]

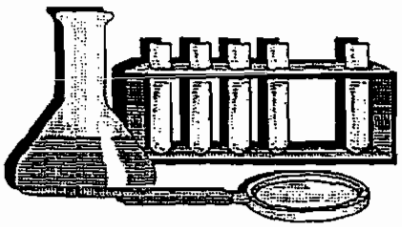
Workplan & Approval



- A workplan on how to technically evaluate the site must be written.
- The Navy must send the workplan to the U.S. Environmental Protection Agency and the South Carolina Department of Health and Environmental Control for approval. These agencies maintain oversight of the cleanup.
- Workplans are written at several stages in any environmental cleanup, and all must be approved by the environmental agencies.

[❷ DETAILED INVESTIGATION (RFI)]

Sampling



- Sampling can begin which may include water, air, soil, and sediment.
- The appropriate tests will be done to determine type of contamination.
- As a safety precaution, workers are required to wear protective clothing.

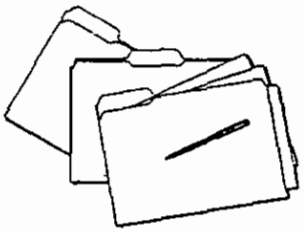
[❷ DETAILED INVESTIGATION (RFI)]

Analysis/Data Evaluation

- Water, air, soil, and sediment samples from the site will be sent to a laboratory for analysis. The lab will analyze the samples to see what contaminants are at the site, and at what levels.
- This information will be used to determine if the materials found were at safe levels, or if cleanup action is required.
- Other scientists review associated human and ecological risk factors.
- The Navy will prepare a report to summarize these findings.

[❷ DETAILED INVESTIGATION (RFI)]

Cleanup Choice Development



- Results from the analysis/data evaluation step provides the information needed to evaluate the options for cleaning up the site.
- Based on this information, the Navy will write a report recommending the best options for cleanup. This report is called the corrective measures study and is a general outline of the remedies that can be used effectively at the site.
- This report is sent to the environmental agencies for their approval.

[⑧ EVALUATION OF CLEANUP OPTIONS (CMS)]

Remedy Selection

- Both environmental agencies review the corrective measures plan independently. Together, the Navy and the environmental agencies decide on the best option for cleaning up the site.
- Selection of the remedy is based on many criteria, including overall effectiveness, feasibility, public input, and cost.
- After public comment, the final decision will be made by the environmental agencies.

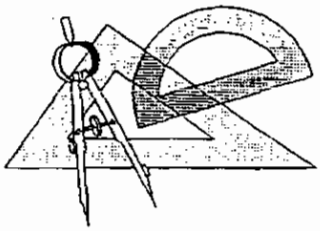
[⑧ EVALUATION OF CLEANUP OPTIONS (CMS)]

Public Comment

- **Wide public participation at this stage is strongly encouraged.**
- The cleanup options and the preferred option are announced to the public as well as the Restoration Advisory Board.
- A public meeting will be held to discuss the alternatives.
- Changes may be made to the proposed plan after the public's written and oral comments have been carefully considered. (*See the next page for more information on public involvement/participation.)

[⑧ EVALUATION OF CLEANUP OPTIONS (CMS)]

Design of Remedy



- Once the cleanup option is approved, the Navy will design the cleanup.
- The design stage requires writing a workplan. The workplan will include how the chosen remedy will work at the site, how to construct and operate the remedy, and a health and safety plan for site workers.

[⑨ SITE CLEANUP OR "REMEDIATION" (CMI)]

Cleanup

- Once the workplan is approved, the selected remedy will begin.
- This is called "remediation," and may involve removal, treatment, or containment.
- The remedy will be monitored until cleanup is complete.

[⑨ SITE CLEANUP OR "REMEDIATION" (CMI)]

Public Involvement: Keeping the public informed of the environmental progress at the Base is an important aspect of the cleanup process, and the Navy encourages public participation throughout the decision making process. One way this is being done is through the Restoration Advisory Board, or RAB. The RAB is a group of citizens, Navy, city, state, and Environmental Protection Agency personnel that meet monthly to discuss progress on the environmental cleanup of the Base. These meetings are open to the public and attendance is strongly encouraged.

Another way to keep the public informed is by providing access to pertinent information regarding cleanup decisions. This has been done at Charleston through the establishment of *information repositories*, which are collections of documents that include work plans, reports, and the Community Relations Plan for Naval Base, Charleston. Repositories can be found at two locations in the North Charleston area; Dorchester Regional Library at 6325 Dorchester Rd., and at the Industrial Relations Office in building 76 at the Naval Base. These documents have been made public as part of the Navy's program to involve and inform the Trident community.

Lt. Donna Murphy
Public Affairs Office
Naval Base, Charleston
1690 Turnbull Avenue, Code N4
Charleston, SC 29408-1955

Naval Base, Charleston also maintains a mailing list of individuals and organizations that receive updates on the cleanup. If you would like to be on the mailing list, would like more information about the Restoration Advisory Board, or if you have any questions about the cleanup, please contact the Naval Base, Charleston Public Affairs Office.

Public Affairs Office
Naval Base, Charleston
1690 Turnbull Ave. Code N4
Charleston, SC 29408-1955

Official Business

Place Label Here

NAVBASE Charleston
Project Team Meeting
November 27, 1995
Meeting Minutes

10:15 Project Team Meeting

Attendees

Tony Hunt - SOUTHDIV	Todd Haverkost - E/A&H
Brian Stockmaster - SOUTHDIV	Doyle Brittain - USEPA
Joe Bowers - DHEC	Bobby Dearhart - CNSY
Hugh Odem - CNSY	David Frazier - CNSY

Tony will request that Steve Fredrick be the facilitator for the December 4th and 5th team meeting.

Discussed agenda for the December 4th and 5th meeting. Tony will get a draft agenda out by tomorrow.

A copy of the final November 14th project team minutes was distributed to everyone present.

Interim Measures —
Bobby voiced a concern that he does not have a good feeling that an approach to using interim measures has not been agreed upon.

Technical issues — Joe wants to know if everything has been covered.

Zone L Work Plan — Doyle has brought draft comments.

Budget — Tony wants to seek input on the budget from 1998 and out.
Doyle wants to change the way we are doing business and have a part in the budget process rather than try to figure the budget after the fact. Doyle gets to see the budget anyways through the A106 process.

Joe — How do we handle SWMUs/AOCs that the RFI report identifies as needing more work?

Doyle — Comments on Zone L
Questions/concerns about the RAB
— Change in co-chair
— RAB decision making
— RAB meetings need to be shifted to place emphasis back on BCP
Status report of the entire RFI
Develop a master wall calendar
√ Administrative Record — Make sure it is readily available to citizens, suggest changes to items to be included.

Project Schedule

√ Status of HSWA Permit

√ Wants to get Ted Simon and Joan Dupont to come down and give a laymens interpretation of BRA. Wants to time with report submittals.

Wants to get an update on what groups have moved on the base and the transfer mechanism.

Bobby indicated Daryle will be the co-chair in December and now Daryle is preparing the agendas.

Budget — Doyle suggested that the budget be established based on the April 21, 1995 CAMP rather than the unapproved proposed CAMP. Doyle and Joe both want to look at a realistic schedule and have the schedule drive the budget. In the interim Tony has to put together a budget for FY97 by tomorrow. He will plug in the approved CAMP dates and whatever is in excess of the $15M control figure will have to be identified as unfunded. Tony will note that the project team objects to having to make the schedule fit the budget.

Action Items — Tony will rebuild his budget based on the approved vs. unapproved CAMP.

Tony and Brian will take an initial shot at identifying executable tasks in the next year.

Interim Measures

Bobby — We have yet to come up with a process even though the permit lays out guidelines. A copy of the process developed by Brian was distributed.

Actions must be consistent with long term corrective actions.

Doyle got off the subject a little bit and discussed RFI date gaps. He acknowledged that not all of the data needs of the CMS will be met by the RFI. The RFI will identify some data gaps that can be filled in the CMS. The RFI should provide enough data to generally define the area to be cleaned up and determine what the corrective action will be.

It was agreed that the Navy would take the initiative to identify a tentative list of sites for IM and bring them to the project team for consensus.

The RAB needs to be informed of the IM decisions.

Doyle suggested that the shipyard obtain a copy of the documentation available for the IM undertaken at the rifle range at the Air Force Base.

Action Item — Tony and Brian will bring a list of possible sites for IM that CNSY can do to the December 4th and 5th meeting.

Additional Investigation of SWMUs/AOCs

This based on conclusions/recommendations in the RFI Report. These situations will be handled on a case by case basis and sampling generally be deferred to the CMA.

Action Item — None required.

Doyle stated that the RAB agenda should include an update on the total environmental status because the BCT is concerned with all media. Should be included every month. Tony will take this up with Daryle.

Quarterly Groundwater Sampling — Can we limit parameters?

> Joe wants to re-visit the sampling strategy in the Comprehensive Work Plan to see if eliminated groundwater parameters is consistent with the strategy.

Deep Well Installations — Need to provide Joe information on the wells where we encounter the Ashley EM at 25 feet or less. We may be able to with a shorter screen.

> How may rounds of sampling do we need to do if groundwater samples are non-detect. Only 2 rounds (per Joe) are necessary from grid based wells. Do not abandon the wells but discontinue sampling.
>
> Can we reduce confirmation at Level IV to 5% instead of 10%. We need to justify it. Need to do a comparison.

Zone L — Doyle provided "draft" comments on the RFI Work Plan. We briefly went over them and agreed to discuss them further tomorrow.

NAVBASE Charleston
Project Team Meeting
November 28, 1995
Meeting Minutes

Attendees

Tony Hunt - SOUTHDIV
Doyle Brittain - USEPA
Bobby Dearhart - CNSY
Daryle Fontenot - CNSY
Todd Haverkost - E/A&H
Joe Bowers - DHEC
Hugh Odem - CNSY

Action Item: What should be in the AR? Project Team
Where should it be? Brian

Administrative Record

Joe voiced some concern over including draft documents.

Doyle questioned what happened to the AR when Building 76 closed. He further suggested that the AR be put in a library adjacent to the Base. (Across from the Naval Hospital). Bobby and Tony stated that the library staff was concerned that they did not have the space available. The AR is currently at the Dorchester Library. Doyle also suggested that draft documents be included. The RAB could be given the opportunity to provide timely comments.

The draft would be replaced with the final when it is issued.

RAB Meetings

Doyle feels as though the meetings should be held in close proximity to the Base rather than a distant location. It needs to be close to the people affected most.

Action: Propose to the RAB that meetings be held close to the Base — Daryle

HSWA Permit Status

What is the status? It seems as though nothing will change until the two storage facilities undergo closure. It is likely that a permit mod will be required for Zone H because the new permit language will not be in effect. Hopefully the renewal process will begin after the first of the year.

Consensus was reached that it would be a good idea to provide risk assessment training (general overview) prior to submitting final reports.

Action Item: Include proposal on the December agenda. Doyle will present the proposition.

RAB Involvement
Doyle — How do we get them more involved? Doyle stated that at other bases the RAB is involved in reviewing FOSLs. Need to bring this up at next RAB. What does the BCT envision the RAB being?

Doyle feels as though initially the RAB meetings discussed the BCP and multi-media issues. Then the meetings digressed primarily to Haz-Waste issues and now budget issues. Doyle handed out an example summary report that can be provided each month. Discuss further at the December 4th and 5th meeting.

RFI Status Report
Doyle — Where are we? What are the problems being encountered? What can we resolve by talking?

Doyle — Where are we with respect to getting things done? Do we have enough resources. Need to get the CAMP updated.

Thursday, December 21st — Meet to discuss the Zone H Report 0900

Action Levels — Need to reach consensus on December 4th on 1E-G residential as the threshold for triggering the CMS

Status of the RFI — Defer to December 4th and 5th.
Next to fax the agenda by tomorrow for the December 4th and 5th meeting.

Joe — Verbal comment on the TOC. Include a division by Volume.

Pairing down of analytical parameters — Revisit on December 4th and 5th.

NAVBASE Charleston
Project Team Meeting Agenda
December 4-5, 1995

Time: **0900 - 1700**

Location: **Marriott - North Charleston**

Proposed Topics of Discussion

- **Interim Measures**
  - Develop a list of potential sites where the Shipyard Detachment can perform interim measures (Tony and Brian will bring a tentative list of sites to discuss)
- **RFI Status Report**
  - Where are we in the process?
  - What are the problems being encountered?
- **Action Levels**
  - What is the threshold to determine whether or not a site gets included in the CMS.
- **CAMP**
- **Quarterly Groundwater Sampling**
  - COPC identification and reduction in analytical parameters.
- **Information Repository**
  - What should be in the repository? (Review list of existing documents for completeness.)
  - Where should the repository be located? (Brian)
- **RAB**
  - Develop the December RAB agenda
  - Discuss the January RAB meeting
- **RDA Concerns**

Tier I Meeting
December 4, 1995

0900 The meeting began with Doyle stating that he had received word that the Border Patrol will be moving to NAVBASE Charleston. They will have a delegation in town on Wednesday and will want a briefing. Also, Doyle wanted to add that the RDA will be coming over this afternoon (1500).

Tony addressed the agenda that was faxed out last week and added two items.

— IDW
— Zone H RFI Report submittal

Action Levels

- At the last meeting we agreed that we would resolve this issue. 1E-6 residential will be the threshold for inclusion of sites in the CMS unless there is substantial justification for exclusion. The discussion must provide clear and thorough justification. I asked Joe if DHEC had made a decision on petroleum sites and he stated that he still needs to talk to Tim Metlin. Agreement by the project team needs to be reached regarding sites to be excluded prior to the report being submitted.

Interim Measures

- Tony provided a memo which outlined the Interim Measures Candidates Selection. The memo provided both general and specific criteria. Ann was concerned about the General Criteria 1.a. which seems to state the RCRA process is too long and IM is a way around the process. Tony reassured her that was not the case but that he could not deny that the CNSY Detachment is a resource the Navy has to act quickly upon. Her concern centers around the term "Resources".

- Ann asked if the Navy was going to seek regulator "buy in" or if they are going to proceed at their own risk. Tony indicated the Navy will follow the permit which says the Navy will provide notification (via the meetings) and a written work plan. Joe agreed that the was OK with discussing sites up front and maybe even letting the Work Plan serve as the 30 day notification. Joe reiterated that we want to keep the public involved (i.e. public notice). Brian indicated the Navy wants to discuss the proposed sites at the December RAB.

- Tony began a brief discussion on each of the 23 sites he and Brian have come up with. He also welcomed comment as we proceed.

1020-1030 Break

1030 When we returned from the break Bobby announced that Jeri Johnson from the RDA informed him that she had been called to Washington and no one from the RDA would attend our meeting.

SWMU/
AOC 5 Eliminate 2nd sentence under proposed action. Need to indicate extent of excavation will be determined by field tests.

Joe interrupted and asked about where the procedures for conducting the IM would be documented. Both he and Doyle are in favor of using and/or modifying the existing Work Plan.

6 & 7 Doyle voiced some concerns regarding complexity. Todd proposed keeping SWMU 7 and referenced the Fall '93 data. The Navy wanted to keep them on the list. The sites were retained but given low priority.

8 The team agreed this site should be given strong consideration.

14 Strong Candidate.

44 Retain — Mainly look at coal removal.

54 Strong Candidate.

100 * Tony will re-visit.

159 Strong Candidate. Need to eliminate reference to the berm construction.

178 Retain.

188 Retain.

503 This and the other UXO sites have been discussed for quite some time. Bobby stated there has been a lot of problems trying to coordinate the UXO search internally. Dave offered up the possibility of subcontracting an EOD team.

Action: Tony and Bobby will take a look at what is going to be required to get the resources to locate the UXO. This will in part require a determination whether it has to be done internally (for those in the water).

560 Strong Candidate.

574 Notes for this and remaining sites are on the handout.

Lunch 1200-1340

IDW

1. Discussion on placement of non-hazardous IDW back on sites from which it came.

2. Expediting approval process for disposal through solid waste section within DHEC.

3. IDW Management Plan.

Kevin Long from the shipyard came into the meeting to discuss the IDW issues. The first topic that was discussed was the waste disposal approval process. Since the process is very time consuming and the process has been proven, Kevin asked if there was a way we could get around seeking approval for each roll-off box (i.e. gain acceptance of a standard procedure).

Joe replied that he would have to seek input from the waste disposal section at DHEC.

Tony has asked the detachment to prepare a IDW Management Plan since Code 106 is going away. The current management plan in the Comprehensive Work Plan references the Code 106 plan. This is the reason for the need for a new plan.

Characterization of waste when there are detectable levels of solvent in the soil. Generally the detections are in the low ppb range, and are below RBCs. The site histories indicate that solvents were used. Is the waste F listed or not? Can we establish a threshold other than a detectable level to determine how the soil should be managed?

Joe replied the compounds such as acetone could be lab contaminants. We need to refer back to site histories. Unless we have a specific process it is unlikely we have an F listed waste.

Doyle If we are going to discount a compound as a lab artifact we will need to prove that through the validation process.

Kevin CNSY is currently controlling lead contaminated soil at 100 ppm which is 20 times the RCRA limit. Kevin proposed taking 20 samples and analyzing them for both totals and TCLP to determine the leachable levels.

- Joe wanted to defer the discussion of placing soil back on the ground until a later date.

- Kevin stated that Bill Powers has spoken with Harold Seabrook regarding the waste management issue.

Action:

- Joe and Jeannie will discuss the management process with the waste assessment group.
- Kevin will supply a summary of the TCLP study to DHEC to make a determination.
- Discuss placement of IDW back on site at a later date.
- Todd offered to let CNSY staff come over and have our chemists pull blank data associated with samples that had acetone hits.
- Doyle wanted to revisit the IM candidate list and prioritize sites.
- We went back through the list of sites and ranked them as "High", "Medium", "Low".
- High — Best site to have the Detachment start on.
- Medium — Site the Detachment can work on plan development. Defer field work until certain all issues are resolved.
- Low — More complex site, questionable whether Detachment can perform the work. Needs more discussion.
- See Handout for Ranking.
- Doyle asked about a schedule. Tony asked that a decision on schedule be deferred. A draft schedule will be distributed for the next Tuesday meeting.

RDA Concerns

Ann Jeri Johnson called Bob King to discuss 2 issues.

1. Schedule of Zone H
2. She stated that the RDA had tried to meet with the BCT on numerous occasions but the BCT refused. Ann feels as though the RDA were the ones not being receptive to meeting.

- Daryle indicated that at the Friday RDA meetings they ask him when they can meet with the BCT. There is discussion on establishing a regular monthly meeting.
- The concern of the BCT is that nothing substantive has come of past meetings and it always returns to the discussion of wanting things faster.

1500 CDR Phil Dalby (SOUTHNAVFAC Caretaker Activity Representative)
CDR Tom Liedke

- They came to deliver concerns of the RDA.

- Jeri Johnson has asked that she be provided with copies of our project team agenda and that she have a standing invitation to our meetings. She might be interested in participating in discussions on certain topics such as residential vs. industrial standards for cleanup of the base.

- Bobby, Doyle, and Ann all expressed their dismay at the claims that the BCT would not meet with the RDA.

- The BCT proposed to meet with the RDA next Tuesday at 0900. It is unknown whether or not the RDA can accommodate this schedule. CDR Dalby will set up the meeting.

- The RDAs primary concern right now is the Building 2 and 2A lease. They need an answer on the building by December 15th (FOSL).

- Bobby checked on the status of the FOSL for Building 2 and 2A and the Code 105 review. Bobby reported back that someone changed the priority to Building 56. Despite that Code 105 will still try to complete the review by 1700.

Tier I Meeting
December 5, 1995

0800 Meeting resumed

RAB

- Doyle feels as though the RAB has lost focus over time. The BCP is a multi-media document and this is what the RAB should focus on. Lately it seems as though RAB meetings centered around the budget and hazardous waste issues solely. Doyle suggests that we get the RAB to do the activities outlined in the purple training book.

- Doyle asked for feedback on his proposed multi-media status report which he handed out last week. He suggests using that report or something similar as a report card submitted monthly to the RAB. The report should also include a status of the FOSL process to show the number of buildings that are currently available for leasing by the RDA.

- Doyle also suggested that we follow the guidance and let them play a part in developing the agenda and to return to serving in an advisory capacity such as reviewing Work Plans. Up till now they have been receiving training and we should now ask them to utilize the training.

- Ann feels as though the RAB meetings are really nothing more than updates. RABs at other installations select issues they want to address. The RAB members interested in particular issues can form subcommittees and ultimately bring the issues to the agencies for resolution/clarification. Also, monthly meetings may not provide adequate time between meetings for real progress to occur. This will result in an interactive RAB.

- Doyle does not agree with the Navy making the RAB meeting less frequent than monthly. This is a decision that the RAB should make.

- Ann proposed that we allow the RAB to vote on a preferred location for holding the meetings. Darly suggested that the Community Relations subcommittee be tasked with proposing a list of locations for the meetings and also where the information repository should be located.

Action:

- Daryle will take the proposal to the subcommittee and address it in the January 1996 meeting.

- Ann wants someone to ask the RAB if they want a presentation at the January RAB and if they are receptive to change.

- Ann volunteered to present the idea of creating subcommittees and the RAB taking ownership of the meeting at the January RAB meeting.

- Doyle volunteered to take the lead within the BCT for updating the "report card" on a monthly basis.

Investigation Update

- Andy Hutto reported on the progress of the UST Program. He stated that the Detachment has taken the initiative to prepare the Tank Management Plan and Petroleum Remediation Plan. They hope to have the plans completed by 1 March 1996.

- Gabe Magwood will be soon taking the lead for Southern Division, as the NAVBASE Petroleum RPM and will be dedicated to Charleston.

- Tony asked how soon we might expect to see a draft version of the TMP.

- Andy said he would have to check on the status of TMP. Thinks it is about 90% complete.

- Petroleum Remediation Plan will address cleanup of petroleum sites including those identified in the RFI. It has yet to be started.

- Rick Albers stated that the TMP will be completed this month and the PRP will be in development in January.

- Tim Metlin from DHEC will participate in the review of the TMP but it will not be "approved" since it is only a management tool.

- Andy and Gabe want to make a trip to Columbia, South Carolina to meet with Tim Metlin and discuss the petroleum program at NAVBASE. Joe indicated he would like to participate in the meeting.

- Doyle asked that either Andy or Gabe help identify key milestones for his monthly update.

Asbestos Update

Archie Southern Division recently transferred funding for the Detachment to upgrade the 1982 Westinghouse Survey Update. Not likely to be done until after 1 April 1996. Will take 4 to 6 months to complete. Will likely be around September 1996 before planning of removals will begin. Building 32 probably the "worst building".

Rick The shipyard is planning a scoping meeting on Monday for Building 32. The Shipyard is planning on beginning a complete removal starting 1 April 1996 and it will take about 1 year.

- Doyle requested that Archie also assist with his status report.

- Bobby asked what would happen/who would be responsible for asbestos in buildings slated to be demolished. Archie said right now they are operating in accordance with DOD guidance which says whoever assumes ownership of the building will be responsible for the asbestos.

Radon Bobby stated that there are no plans to undertake a new radon survey. One has been completed but it may be invalid due to an earthquake in 1993.

Lead Based Paint Nothing further is currently proposed unless someone plans to come into the housing area and use it for residential.

Gram and NNPP Bobby stated a general status update can be provided but it will have to be approved.

RFI Update

- Todd provided a zone by zone update. Tony captured the basic overview on the flip chart.

- We also discussed the revisions to the Comprehensive Plan and the fact that we are gong to need to propose an additional revision to address the need to provide logic for installing deep wells.

CAMP

- Tony described the process of looking at total budget and cost saving measures. The zones in question as far as regulatory dates are concerned are D, F, G, and K. The 2 RFI Work Plans are now overdue because of lack of funding in the past. Money is now available and we will due our best to make up lost time.

- The Zone D, F, and G Work Plan will be submitted 14 December 1995. The Zone K Work Plan submittal date will be decided by the team. The contract award date for Zone K Work Plan is 15 December 1995.

- Project Team meeting to discuss the CAMP tentatively scheduled for 10 January 1996.

NAVBASE Charleston
Project Team Meeting
February 13, 1996
Meeting Minutes

ATTENDEES

Ann Ragan - DHEC
Jeanne Olano - DHEC
Doyle Brittain - USEPA
Joe Bowers - DHEC
Todd Haverkost - EnSafe\Allen & Hoshall
Dave Backus - EnSafe\Allen & Hoshall
Tony Hunt - SOUTHDIV
Daryle Fontenot - SOUTHDIV

AGENDA:

1. CAMP
2. UXO Status
3. Status of Sites Identified in FOSLs
4. IM Status
5. Groundwater Modeling Meeting
6. Protocol for Revising WP^s
7. IDW Manifest Letters
8. Zone H RFI Report Recommendations Discussion
9. Agenda for March Meeting

CAMP

The main question raised was whether or not everyone was agreeable to the concept of the new schedule.

- DHEC and EPA have not had time to thoroughly review the CAMP yet. EPA is behind on document review due to furloughs and budget reductions.
- Some concern was expressed over the timing of the progress meetings and the fact that the meetings should not be an impediment to progress. Travel constraints due to budget restrictions might make it more difficult for key members of the project team to attend meetings. If Doyle has to move back to Atlanta many of the meetings will have to held in Atlanta.

As an alternative to travelling the possibility of video conferencing was mentioned. Southern Division and DHEC both have video conferencing capability but EPA does not.

Doyle expressed his opinion that the CAMP needs to clearly state in the introduction that the clock stops once documents are submitted to EPA. The time lines will be adjusted accordingly upon receipt of comments.

UXO STATUS

Need to establish plan of action - DHEC is ready to move forward and needs commitment from Navy.

SOUTHDIV has been looking at policy issues and the possibility of employing the detachment to coordinate location and removal activities. In addition, SOUTHDIV suggested possibly handling the sites in a manner similar to SWMU 2 - carve these areas out of the RFI process and deal with them separately.

DHEC asked that a schedule developed by next meeting otherwise they will a issue a letter if a commitment is not made soon.

STATUS OF SITES IDENTIFIED IN FOSLs

Southern Division will pass information on to EnSafe/Allen & Hoshall regarding four potential SWMUs or AOCs discovered through the FOSL process. Additional discussions are need to determine whether or not to officially notify the regulators.

SOUTHDIV offered to provide a summary at the March meeting.

DHEC requested a follow up letter on this issue.

IM STATUS

- Work Plans are behind schedule.
- Building 79 mercury spill area.
  - General agreement with screening methodology.
  - EPA feels that this IM is perfect for the detachment, they will need lots of support.
  - EPA would like EnSafe/Allen & Hoshall to expedite investigation (before April 01) and get detachment involved.
- Building 68 - Removal of the lead sulfate standing in the building was identified as another potential site for the Detachment to handle.
- Tony raised the issue of the detachment not having the resources to accomplish the IM before April 01. He inquired about the possibility of the Navy "stabilizing" some areas and scheduling process closures and IMs after April 01. DHEC advised the Navy to be

careful of leaving behind hazardous materials due to incomplete process closures. The material left behind may be classified as a hazardous waste and the 90 day storage limit becomes applicable.

GROUNDWATER MODELING MEETING

At the request of SOUTHDIV, USGS is developing groundwater flow model for NAVBASE. SOUTHDIV would like to present results to EPA/DHEC and get feedback so it can be finalized. Tony asked when and where would be suitable for the team members to meet with USGS. The suggestion was made that Columbia would be a good meeting place since USGS and DHEC based in Columbia.

Doyle voiced some concerns over the model and felt as though the BCT had not been consulted regarding the need and purpose of the model. Doyle requested that he be provided a copy of the work assignment given to USGS so he could review it prior to committing resources to review the model itself. DHEC stated they would like a copy of the work assignment as well.

Tony suggested having that he could have USGS come down and brief the BCT if the BCT so desired.

PROTOCOL FOR REVISING WORK PLANS

DHEC raised some concerns over the process by which the RFI work plans are revised. It seems as though the Navy has submitted a couple of work plan revision packages along with letters stated that the revisions need to be inserted into the plans. The problem is that the regulatory agencies had not had a chance to revision the proposed revisions. Joe stated that the Navy needs to initiate the process by submitting a package that contains the proposed revisions along with a cover letter that requests the proposed revisions be reviewed. Upon receipt of comments from the agencies the packages could be finalized and resubmitted for insertion into the documents.

IDW MANIFEST LETTERS

DHEC mentioned that they have had a problem recently with the Navy submitting waste manifests under cover letter addressed "Dear DHEC". Joe stated that the letters should be addressed to the correct section of DHEC - Carol Burley, Compliance Monitoring Section, Bureau of Solid and Hazardous Waste, as well as all manifests. Joe and Jeanne do not need to be copied.

ZONE H RFI REPORT RECOMMENDATIONS

SOUTHDIV is concerned that the threshold for recommendations that sites (greater than 10^{-6} residential risk or greater than 100 ppm TPH in soil) be carried forward into the risk assessment are overly conservative in some instances. Tony inquired as to whether or not it would be possible to consider exceptions to the thresholds and make "no further action" recommendations in the report as opposed to unnecessarily putting sites through the CMS process. An example was cited where arsenic in groundwater exceeded the risk threshold but did not exceed the MCL. Another example was moving pure petroleum sites to the petroleum management plan rather than a CMS. In such instances it may be appropriate to make some risk management decisions and modify the report conclusions accordingly. These decisions must be made with DHEC and EPA.

Southern Division and EnSafe/Allen & Hoshall can compile a list of those sites that need further risk management input from the regulators and hopefully a meeting can be arranged after they have had a chance to review the report.

AGENDA FOR MARCH MEETING:

- Bring facilitator back to team meetings — Steve Fredrick.
- Re-examine roles and responsibilities of BCT — BCT Empowerment.
- How do BCT accomplish everything that needs to be done?
- Tentative dates February 28th and 29th.
- RAB meeting Tuesday 6:00 - 9:00 p.m.
- EPA is in Atlanta always on the first week of the month.
- EPA and Navy are looking at options to continue to fund full time EPA presence.
- BRAC Clean Up Plan revision due - 01 March 1996.

ACTION ITEMS

* Prepare a plan of action for addressing UXO sites.

* Follow up letter to DHEC regarding status of potential sites identified in FOSLs.

* SOUTHDIV and E/A&H compile list of sites needing risk management input.

* RDA needs minutes of team meetings. Tony has been holding minutes and we will review drafts in March.

* RDA should be included on contractor status report distribution list.

NAVBASE CHARLESTON
RFI STATUS REPORT
PERIOD: SUMMARY OF
01 December 1995 To 31 December 1995

I. INTRODUCTION

The following status report has been prepared to satisfy condition II.E.3.a of the Part B Permit Renewal dated 5 December 1994 for Naval Base Charleston (NAVBASE). The requirements of this condition are in effect since the total elapsed time to complete the RCRA Facility Investigation (RFI) is projected to be greater than 180 calendar days from the approval date of the *Final Comprehensive RFI Work Plan* as indicated in the Corrective Action Management Plan (CAMP).

In lieu of submitting quarterly reports, NAVBASE is voluntarily submitting monthly reports to provide an update on the progress of the RFI to members of the NAVBASE BRAC Cleanup Team (BCT) in a more timely manner. The content of the monthly reports includes information intended to satisfy condition II.E.3.a of the Part B Permit. Consequently, this report only addresses activities which occurred during the month of December 1995.

II. PORTION OF THE RFI COMPLETED

- Additional proposed page change revisions to the *Comprehensive RFI Work Plan* were submitted to SCDHEC and USEPA on 14 December 1995. The proposed revisions provide contingency measures for use during the installation of deep wells.

- The initial round of groundwater sampling was completed in both Zones A and B.

- Preparation of the *Draft Zone C RFI Report* continued.

- The second quarter of groundwater sampling in Zones and I was initiated on 4 December 1995. A portion of the wells were sampled before activities were suspended on 15 December 1995. Section VI addresses the second quarter sampling in greater detail.

- The *Draft Zones D, F, and G RFI Work Plan* was submitted to SCDHEC and USEPA on 14 December 1995 for review and comment .

- Field work continued in Zone E at a number of sites. Attachment A contains a summary of the work completed to date.

- The *Final Zone H RFI Work Plan* was submitted to SCDHEC and EPA for approval on 27 December 1995.

- Preparation of the *Draft Zone I RFI Report* continued.

III. SUMMARIES OF FINDINGS

Groundwater data from the 6 existing wells at SMWUs 1 and 2 in Zone A have been received and evaluated. As specified in the *Final Zone A and B Work Plan*, the data will be presented to the BCT and Project Team where a consensus will be reached regarding the need (or lack thereof) for additional wells. The preliminary information does not indicate a groundwater problem exists as a result of activities at either site. This information is anticipated to be presented in greater detail at the January Project Team meeting.

The remainder of the groundwater data for Zones A and B is scheduled to be delivered from the laboratory beginning the week of 15 January 1996.

IV. DEVIATIONS FROM APPROVED WORK PLANS THIS REPORTING PERIOD

There were no deviations from the approved RFI Work Plans for this reporting period.

V. SUMMARY OF CONTACTS WITH LOCAL COMMUNITY PUBLIC INTEREST GROUPS OR STATE GOVERNMENT

As indicated in the January 1995 Quarterly Status Report, the Navy has established a Restoration Advisory Board (RAB) to involve the public in the decisions regarding the investigation and remediation of contaminated sites at Naval Base Charleston. The meetings are held monthly and are open to the public. The minutes of the November 1995 meeting are provided as Attachment B. The minutes of the December 1995 meeting were not available for submittal with this report.

VI. SUMMARY OF PROBLEMS OR POTENTIAL PROBLEMS AND ACTION TAKEN TO RECTIFY PROBLEMS

As mentioned in Section II, the second quarter of groundwater sampling in Zones C and I was initiated on 4 December 1995. Groundwater sampling activities were suspended on 15 December 1995 pending the outcome of Project Team discussions regarding the concept of reducing analytical parameters based on first round sampling results.

The subcontract laboratory for Zone H sample analysis (Pace, Inc.) has filed for bankruptcy which has led to a large scale layoff of personnel. Some difficulties were encountered with the delivery of the third quarter Zone H groundwater data as a result. All the data has now been received from the laboratory. Due to uncertainties regarding the future of the lab, the

groundwater sample analysis subcontract will be awarded to one of the other laboratories currently performing work on the project.

VII. KEY PROJECT PERSONNEL

The January 1995 status report identified key Navy and EnSafe/Allen & Hoshall project personnel for the NAVBASE Charleston RFI. The list will be updated with each status report to reflect any changes which may have occurred during the previous reporting period. The list has not been resubmitted with this report since no changes occurred during this report period.

VIII. PROJECTED WORK FOR THE NEXT REPORTING PERIOD

Document Preparation and Data Evaluation:

- Data evaluation for Zones A, B, and E will begin.
- The draft RFI reports for both Zones C and I are due to be submitted to SCDHEC and USEPA on 26 January 1996.
- Funding to write the Zone K RFI work plan is anticipated to be awarded in early January 1996. As soon as funding is awarded preparation for a scoping meeting to follow shortly thereafter will begin.

Field Activities:

- Quarterly groundwater sampling should resume in Zones C and I.
- Soil sampling efforts will continue in Zone E. In addition, the installation of both deep and shallow wells will continue.

IX. COPIES OF DAILY REPORTS, INSPECTION REPORTS, LABORATORY DATA

Daily activities are recorded in accordance with the Data Management Plan included as Section 14 of the Final Comprehensive Sampling and Analysis Plan. Photocopies of these daily records have not been included with this status report; however, this information is available for review upon request.

Per agreement with SCDHEC and EPA, hard copies of the analytical data are not being submitted. A copy of the data is maintained at the EnSafe/Allen & Hoshall office in Charleston and is available for review.

Status Report — Zone E RFI
Summary of Field Activities
August 21 - December 31, 1995

The following summary details work completed and work remaining during the initial phase of field work at each site. Work remaining does not take into account the additional work which will be required to define the extent of any contamination detected in the initial phase of the project. A total of 94 shallow groundwater monitoring wells and 20 deep monitoring wells have been installed. A total of 628 soil, 28 sediment, 74 wipe, 15 air, 21 core, and 23 surface water samples have been collected.

SWMU 5 and 18, AOC 605 — Pad 1278
Data will be shared between the SWMUs and AOC due to the close proximity of these sites.

SWMU 5
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) adjacent to SWMU 5. No further action is scheduled at this time.

SWMU 18
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and two shallow monitoring well locations (4 samples) adjacent to SWMU 18. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 605
Work Completed — Soil sampling activities have been completed. Soil samples were collected from eight soil boring (14 samples) and three shallow monitoring well locations (6 samples) adjacent to Pad 1278. A sample could not be collected from the second interval at one soil boring and one shallow monitoring well location due to obstructions in the borings. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells adjacent to Pad 1278.

SWMUs 21 and 54 — Building 1275
Data will be shared between these SWMUs due to the close proximity of these sites.

SWMU 21
Work Completed — Work completed for this site is to be shared with SWMU 54. All samples were identified with a SWMU 54 identification.

SWMU 54
Work Completed — Soil sampling activities have been completed. Soil samples were collected from 37 soil boring (74 samples) and three shallow monitoring well locations (6 samples) in the area adjacent to former Building 1275. Four sediment samples have been collected from four locations adjacent to the site in the Cooper River. Eighteen thickness samples were collected across the site to define the volume of waste material present for the purpose of corrective measures. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells.

SWMUs 22 and 25, AOC 554 — Between Buildings 5 and 44
Data will be shared between this AOC and SWMU due to the close proximity of these sites.

SWMU 22
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

AOC 554
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) between Buildings 5 and 44. No further action is scheduled at this time.

SWMU 25
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMUs 23 and 63, AOCs 540, 541, 542, and 543 — Building 226
Data will be shared between several AOCs and SWMUs due to the close proximity of these sites.

SWMU 23
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings locations (4 samples) and from one shallow monitoring well location (2 samples) outside of Building 226. One shallow and one deep monitoring well have been installed outside of the building.

Work Remaining — Sample one shallow monitoring well one deep well outside the building.

SWMU 63
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring and two shallow well locations (6 samples) outside of Building 226. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Sample the two shallow monitoring wells outside the building.

AOC 540
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside of Building 226. No further action is scheduled at this time.

AOC 541
Work Completed — Soil sampling activities have been completed. A soil sample was collected from one soil boring (1 sample) in the area between Buildings 6 and 226. A sample could not be collected from the second interval due to an obstruction in the boring. Data from this boring will be shared with AOC 542 due to the close proximity of these sites. No further action is scheduled at this time.

AOC 542
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (5 samples) and four shallow monitoring well locations (7 samples) in the area between Buildings 6 and 226. A sample could not be collected from the second interval at one soil boring and one well location due to subsurface obstructions. Four shallow monitoring wells have been installed in the area between Buildings 6 and 226.

Work Remaining — Sample the four shallow monitoring wells in the area between Buildings 6 and 226. Data from one soil boring and one monitoring well location will be shared with AOC 538 due to the close proximity of these sites.

AOC 543
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) inside and from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 226. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the shallow monitoring well outside the building.

SWMU 53, AOC 526 — Building 212
Data from this AOC and SWMU will be shared due to the close proximity of these sites.

SWMU 53
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) and one shallow monitoring well location (2 samples) adjacent to Building 212. One shallow monitoring well has been installed.

Work Remaining — Sample the shallow monitoring well.

AOC 526
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seven soil boring (14 samples) and two shallow monitoring well locations (3 samples) adjacent to Building 212. One shallow monitoring well has been installed.

Work Remaining — Install one shallow and one deep monitoring well adjacent to the building. Sample the two shallow and one deep monitoring wells.

SWMU 65, AOC 544 and 546 — Building 221
Data will be shared between these AOCs and SWMU due to the close proximity of these sites.

SWMU 65
Work Completed — Soil samples have been collected from six shallow monitoring well locations (11 samples) outside of Building 221. A soil sample could not be collected from the second interval of one soil boring due to an obstruction in the boring. Six shallow monitoring wells have been installed outside of the building.

Work Remaining — Install ans sample one deep monitoring well and sample the six shallow monitoring wells outside the building.

AOC 544
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (8 samples) inside of Building 221. No further action is scheduled at this time.

AOC 546
Work Completed — An attempt to collect a soil sample from one corner of former Building 1025 was unsuccessful due to subsurface obstructions encountered below the concrete surface. Samples collected from SWMU 65 and AOC 544 will share data with this site due to the proximity of these sites and should be sufficient to determine the presence of any contamination which may have produced by AOC 546. One sediment sample was collected from a drain in the corner of former Building 1025. No further action is scheduled at this time.

SWMU 67 — Building 3

Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and one monitoring well location (2 samples) inside Building 3 and one shallow monitoring well location (2 samples) outside the building. Air sampling for mercury was completed using a Jerome Mercury Vapor Analyzer. Wipe samples were collected at 8 locations (4 in the former mercury gauge room, 4 in the most recent gauge room). Two shallow monitoring wells have been installed, one inside the building and one outside the building.

Work Remaining — Sample the two shallow monitoring wells.

SWMU 70, AOCs 548 and 549 — Building 5

SWMU 70

Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings and two shallow monitoring well locations (8 samples) between Buildings 3 and 5. Two shallow monitoring wells have been installed between Buildings 3 and 5.

Work Remaining — Sample the two shallow monitoring wells between Buildings 3 and 5. Install and sample one deep monitoring well which was relocated from AOC 549.

AOC 548

Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) inside of Building 5. No further work is scheduled at this time.

AOC 549

Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 5 and four soil borings and three shallow monitoring well locations (14 samples) in the alley between Buildings 3 and 5. Three shallow monitoring wells have been installed in the alley between the buildings. One deep well proposed for this site was not accessible; therefore, the location of this well was moved to SWMU 70.

Work Remaining — Sample the three shallow monitoring wells in the alley between Buildings 3 and 5.

SWMU 81 — Former Building 1245

Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations in the Cooper River, adjacent to the site. Three concrete core samples were collected from the location of the former building. No further action is scheduled at this time.

SWMUs 83 and 84, AOC 574 — Building 9
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 83
Work Completed — Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) inside of Building 9 and two shallow monitoring well locations (4 samples) outside the building. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells outside of the building.

SWMU 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and two shallow monitoring well locations (4 samples) adjacent to Building 9. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells.

AOC 574
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and three shallow monitoring well locations (6 samples) adjacent to Building 9. Three shallow monitoring wells have been installed.

Work Remaining — Sample the three shallow monitoring wells and install and sample one deep monitoring well.

SWMUs 87 and 172, AOC 564 — Building 80
Data will be shared between these SWMUs and AOC due to the close proximity of these sites.

SWMU 87
Work Completed — Soil sampling activities have been completed. Soil samples were collected from one soil boring (2 samples) outside of Building 80, at the former location of the <90 day storage area. No further action is scheduled at this time.

SWMU 172
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and two monitoring well locations (12 samples) outside of Building 80, at the former location of the steam cleaning operations. One sediment sample was collected from the drain outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 564
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) outside of Building 80, at the location of the oil/water separator. No further action is scheduled at this time.

SWMU 97 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) outside of Building 236. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 236.

SWMU 100 — Building 218
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) and one shallow monitoring well location (2 samples) at the location of the former satellite accumulation area. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 218.

SWMU 102 — Building 79
Work Completed — This SWMU has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

SWMU 106, AOC 603 — Dry Dock #3
Data will be shared between this AOC and SWMU due to their close proximity.

SWMU 106
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil boring locations (4 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

AOC 603
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) adjacent to Dry Dock #3. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well adjacent to Dry Dock #3.

SWMU 145 — Building 13A
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from nine soil boring locations and from three shallow monitoring well locations. Install and sample three shallow monitoring wells and one deep well outside the building.

SWMU 170 and 171 - Dry Docks 1 and 2
Data will be shared between these SWMUs due to the close proximity of these sites.

SWMU 170
Work Completed - No work has been completed.

Work Remaining - Collect soil samples from fifteen soil boring locations and four sediment samples from four storm drains at the site.

SWMU 171
Work Completed - Soil sampling activities have been completed. Soil samples were collected from twenty-one soil boring locations (35 samples) based on a grid system across the SWMU. Soil samples could not be collected from four proposed soi boring locations due to subsurface obstructions. Seventeen asphalt samples were collected from soil boring locations at which an asphalt surface was present.

Work Remaining - Collect two sediment samples from two storm drains at the site.

SWMU 173 — Building 1297
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside of Building 1297. Three sediment samples were also collected from three drains outside of the building. No further action is scheduled at this time.

AOC 525 — Building 223
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil boring locations (6 samples) and one shallow monitoring well locations (2 samples) inside the building.

Work Remaining - Install and sample one shallow monitoring well inside Building 223.

AOC 528 — Building 1453
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) outside of Building 1453. One shallow monitoring well was installed outside the building.

Work Remaining — Sample the one shallow monitoring well outside the building.

AOC 530 — Building 35
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from three soil borings, two shallow well locations, and three surface locations underneath the building. Install and sample two shallow and two deep monitoring wells.

AOC 531 — Building 459
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) around Building 459. Wipe sampling activities have been completed with 4 wipe samples collected. One surface soil sample will be collected and shared with AOC 530. No further action is scheduled at this time.

AOCs 538 and 539 — Building 6
AOC 538
Work Completed — Soil sampling activities inside Building 6 have been completed. Soil samples were collected from seven soil borings (13 samples) inside the building and one shallow monitoring well location (2 samples) outside the building. A sample could not be collected from the second interval at one soil boring location due to an obstruction in the boring. Wipe sampling activities have been completed with 16 wipe samples collected (8 random floor, 8 biased horizontal surface). Air sampling activities according to the SAP were completed between September 19 - 25, 1995 with two samples collected each 24 hour time period (10 samples with one blank). One shallow and one deep monitoring well have been installed outside of Building 6.

Work Remaining — Sample one shallow and one deep monitoring well outside the building. Data from one soil boring and one monitoring well location will be shared with AOC 542 due to the close proximity of these sites.

AOC 539
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) inside and from one shallow monitoring well location (2 samples) outside of Building 6. One sediment sample was also collected from a drain inside the building. Wipe sampling activities have been completed with 6 wipe samples collected (3 random floor, 3 biased horizontal surface). Air sampling activities according to the SAP were

completed between September 19 - 25, 1995 with one sample collected each 24 hour time period (5 samples with one blank). Note: 15 samples with two blanks for complete coverage of AOC 538 and 539 (Building 6 inclusive). One shallow monitoring well has been installed outside the building.

Work Remaining — Sample one shallow monitoring well and install and sample one deep monitoring well outside the building.

AOC 550 — Former Building 1111
Work Completed — No work has been completed.

Work Remaining - Collect soil samples at six soil boring locations and two shallow monitoring well locations. Install and sample two shallow monitoring wells.

AOC 551 and 552 — Building 1119
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 551
Work Completed — Soil sampling activities have been completed. Soil samples were collected at four soil borings (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 1119. Two shallow monitoring wells and one deep well have been installed.

Work Remaining — Sample the two shallow and one deep monitoring wells outside of Building 1119.

AOC 552
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) at the location of former Building 1030. An attempt to collect soil samples from a fourth soil boring was unsuccessful due to subsurface obstructions in the area of the boring. No further action is scheduled at this time.

AOC 555 — Former Building 29
Work Completed — Sampling activities at this site have been completed. Two sediment samples were collected from two locations adjacent to the site in the Cooper River. No further action is scheduled at this time.

AOC 556 — Dry Dock Discharges
Work Completed — Sampling activities have been completed. Nine sediment samples were collected from 9 locations in the Cooper River adjacent to Dry Docks 1, 2, 3, 4 and 5. In addition, 23 surface water samples were collected from the same 9 locations at which the sediment samples were collected. Samples were collected from one to three different intervals at each location, depending on the depth of water. No further action is scheduled at this time.

AOC 558 — Building 77
Work Completed — Four wipe samples have been collected from the substation inside of Building 77.

Work Remaining — Collect four concrete core samples from the area outside the substation.

AOCs 559, 560 and 561 — Building 32
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 559
Work Completed — Soil sampling activities have been completed. Soil samples were collected from seventeen soil borings (34 samples) and five shallow monitoring well locations (10 samples) in the area surrounding Building 32. Five shallow and one deep monitoring wells have been installed. Wipe sampling activities have been completed with 9 wipe samples collected inside of Building 32.

Work Remaining — Sample the five shallow and one deep monitoring wells and install and sample two more deep monitoring wells.

AOC 560
Work Completed — Soil sampling activities have been completed. Soil samples were collected from two soil borings (4 samples) adjacent to Building 32. No further action is scheduled at this time.

AOC 561
Work Completed — Soil samples have been collected from four soil borings (8 samples) adjacent to Building 451-B (substation).

Work Remaining — Collect soil samples from one soil boring inside of Building 451-B.

AOC 562 — Building 84
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) adjacent to Building 84.

Work Remaining — Collect 4 wipe samples from inside the building.

AOC 563 — Former Building 37
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 566 — Building 194
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings and one shallow monitoring well location (10 samples) outside of Building 194. One shallow and one deep monitoring well have been installed.

Work Remaining — Sample the one shallow and one deep monitoring well outside of the building.

AOC 567 — Building 75
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring locations (7 samples) outside of Building 75. A sample could not be collected from the second interval at one soil boring due to an obstruction in the boring.
Four wipe samples have also been collected from inside the building. No further action is scheduled at this time.

AOCs 569, 570 and 578 — Building 25
Data will be shared between these AOCs due to the close proximity of these sites.

AOC 569
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and two shallow monitoring well locations (4 samples) at the location of the former oil storehouse and gas station. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well.

AOC 570
Work Completed — Soil samples have been collected from six soil borings (12 samples) and two shallow monitoring well locations (4 samples) outside of Building 25. Two shallow monitoring wells have been installed outside of the building.

Work Remaining — Collect soil samples from six soil borings and one shallow monitoring well location. Sample the two shallow monitoring wells. Install and sample one shallow and two deep monitoring wells.

AOC 578
Work Completed — No work has been completed at this site.
Work Remaining — Collect soil samples from six soil borings inside of Building 25.

AOC 571 — Building 177
Work Completed — This AOC has not been cleared by Code 105 - Radcon; therefore, no work has been completed.

AOC 572 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from five soil borings (10 samples) and three shallow monitoring well locations (6 samples) outside of Building 177, at the former location of the motor area. Three shallow monitoring wells have been installed in the parking lot outside of Building 177. One sediment sample was also collected from a drain in the parking lot outside the building.

Work Remaining — Sample the three shallow monitoring wells outside the building.

AOC 573 — Building 177
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) and one shallow monitoring well location (2 samples) outside Building 177. Two sediment samples were collected from drains adjacent to Building 177. One shallow monitoring well has been installed outside the building.

Work Remaining — Sample the one shallow monitoring well and install and sample one deep monitoring well outside of Building 177.

AOC 576 — Building 80
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) inside of Building 80 and two monitoring well locations (4 samples) outside the building. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of the building.

AOC 579 — Building 1035
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 1035. No further action is scheduled at this time.

AOC 580 — Building 10
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and two shallow monitoring well locations (4 samples) outside of Building 10. Two shallow monitoring wells have been installed.

Work Remaining — Sample the two shallow monitoring wells and install and sample one deep monitoring well outside of Building 10.

AOC 583 — Building 236
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil boring (8 samples) and three shallow monitoring well locations (6 samples) outside of Building 236. Three shallow monitoring wells have been installed outside of Building 236.

Work Remaining — Sample the three shallow monitoring wells outside the building and install and sample one deep monitoring well outside of Building 236.

AOC 586 — Former Building 1014
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples). One shallow monitoring well was installed at the location of former Building 1014.

Work Remaining — Sample the one shallow monitoring well.

AOC 590 — Building 79
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from four soil boring locations and one shallow monitoring well location and collect two sediment samples from two storm drains at the site. Install and sample one shallow and one deep monitoring well outside the building.

AOC 592 — Former Building 1225
Work Completed — No work has been completed at this site.

Work Remaining — Collect soil samples from four soil boring locations at the location of former Building 1225.

AOC 596 — Building 101
Work Completed — Soil sampling activities have been completed. Soil samples were collected from six soil borings (12 samples) outside the building, and one soil boring (2 samples) and four shallow monitoring well locations (8 samples) inside the building. Soil samples could not be collected from a second soil boring location inside the building due to subsurface obstructions. Four shallow and two deep monitoring wells have been installed outside the building.

Work Remaining — Sample the four shallow and two deep monitoring wells outside of the building.

AOC 597 — Building 91
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (8 samples) outside of Building 91. Three wipe samples were collected

from inside the building. One concrete core sample was collected outside the building. No further action is scheduled at this time.

AOC 598 and 599 — Building 39, Pier J
AOC 598
Work Completed — Soil sampling activities have been completed. Soil samples were collected from three soil borings (6 samples) and one shallow monitoring well location (2 samples) at Pier J. One sediment sample was collected from a drain at the pier. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well at Pier J.

AOC 599
Work Completed — Soil sampling activities have been completed. Soil samples were collected from four soil borings (6 samples) and one shallow monitoring well location (2 samples) adjacent to Building 39. A soil sample could not be collected from the second interval at two soil boring locations due to obstructions in the borings. One sediment sample was collected from a drain outside of Building 39. One shallow monitoring well has been installed.

Work Remaining — Sample the one shallow monitoring well outside of Building 39.

AOC 602 — Building 95
Work Completed — Wipe sampling activities have been completed. Wipe samples were collected from four locations inside the building.

Work Remaining — Collect soil samples from four soil borings outside Building 95.

AOC 604 — Building 96
Work Completed — No work has been completed.

Work Remaining - Collect soil samples from four soil borings outside of Building 96 and four wipe samples from inside the building.

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
AOC 525 - Bldg 223	8	N/A	N/A	N/A	N/A	N/A	0
AOC 526 - Bldg 212	17	N/A	N/A	N/A	N/A	N/A	0
AOC 528 - Bldg 1453	8	N/A	N/A	N/A	N/A	N/A	0
AOC 531 - Bldg 459	6	N/A	4	N/A	N/A	N/A	N/A
AOC 538 - Bldg 6	15	N/A	16	10	N/A	N/A	0
AOC 539 - Bldg 6	6	1	6	5	N/A	N/A	0
AOC 540 - Bldg 226	2	N/A	N/A	N/A	N/A	N/A	0
AOC 541 - Bldg 226	1	N/A	N/A	N/A	N/A	N/A	N/A
AOC 542 - Bldg 226	12	N/A	N/A	N/A	N/A	N/A	0
AOC 543 - Bldg 226	8	N/A	N/A	N/A	N/A	N/A	0
AOC 544 - Bldg 221	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 546 - Bldg 221	N/A	1	N/A	N/A	N/A	N/A	N/A
AOC 548 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 549 - Bldg 5	20	N/A	N/A	N/A	N/A	N/A	0
AOC 551 - Bldg 1119	12	N/A	N/A	N/A	N/A	N/A	0
AOC 552 - Bldg 1119	6	N/A	N/A	N/A	N/A	N/A	N/A
AOC 554 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 555 - Bldg 29	N/A	2	N/A	N/A	N/A	N/A	N/A
AOC 556 - Dry Docks	N/A	9	N/A	N/A	N/A	23	N/A
AOC 558 - Bldg 77	N/A	N/A	4	N/A	N/A	N/A	N/A
AOC 559 - Bldg 32	44	N/A	9	N/A	N/A	N/A	0
AOC 560 - Bldg 32	4	N/A	N/A	N/A	N/A	N/A	N/A
AOC 561 - Bldg 32	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 562 - Bldg 84	8	N/A	0	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
AOC 564 - Bldg 80	6	N/A	N/A	N/A	N/A	N/A	N/A
AOC 566 - Bldg 194	10	N/A	N/A	N/A	N/A	N/A	0
AOC 567 - Bldg 75	7	N/A	4	N/A	N/A	N/A	N/A
AOC 569 - Bldg 25	10	N/A	N/A	N/A	N/A	N/A	0
AOC 570 - Bldg 25	16	N/A	N/A	N/A	N/A	N/A	0
AOC 572 - Bldg 177	16	1	N/A	N/A	N/A	N/A	0
AOC 573 - Bldg 177	10	2	N/A	N/A	N/A	N/A	0
AOC 574 - Bldg 9	10	N/A	N/A	N/A	N/A	N/A	0
AOC 576 - Bldg 80	10	N/A	N/A	N/A	N/A	N/A	0
AOC 579 - Bldg 1035	8	N/A	N/A	N/A	N/A	N/A	N/A
AOC 580 - Bldg 10	12	N/A	N/A	N/A	N/A	N/A	0
AOC 583 - Bldg 236	14	N/A	N/A	N/A	N/A	N/A	0
AOC 586 - Bldg 1014	8	N/A	N/A	N/A	N/A	N/A	0
AOC 596 - Bldg 101	22	N/A	N/A	N/A	N/A	N/A	0
AOC 597 - Bldg 91	8	N/A	3	N/A	1	N/A	N/A
AOC 598 - Pier J	8	1	N/A	N/A	N/A	N/A	0
AOC 599 - Bldg 39	8	1	N/A	N/A	N/A	N/A	0
AOC 602 - Bldg 95	0	N/A	4	N/A	N/A	N/A	N/A
AOC 603 - DD3	10	N/A	N/A	N/A	N/A	N/A	0
AOC 605 - 1278	20	N/A	N/A	N/A	N/A	N/A	0
SWMU 5 - Pad 1278	6	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 18 - 1278	9	N/A	N/A	N/A	N/A	N/A	0
SWMU 21 - Bldg 1275	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 22 - Bldg 5	4	N/A	N/A	N/A	N/A	N/A	N/A

Zone E — Site Specific Completion List							
	Samples Collected						
Site Name	Soil	Sediment	Wipe	Air	Concrete/ Asphalt Core	Surface Water	Groundwater
SWMU 23 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 53 - Bldg 212	4	N/A	N/A	N/A	N/A	N/A	0
SWMU 54 - Bldg 1275	43	4	N/A	N/A	N/A	N/A	N/A
SWMU 63 - Bldg 226	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 65 - Bldg 221	11	N/A	N/A	N/A	N/A	N/A	0
SWMU 67 - Bldg 3	14	N/A	8	Ran-dom	N/A	N/A	0
SWMU 70 - Bldg 5	8	N/A	N/A	N/A	N/A	N/A	0
SWMU 81 - Bldg 1245	N/A	2	N/A	N/A	3	N/A	N/A
SWMU 83 - Bldg 9	16	N/A	16	0	N/A	N/A	0
SWMU 84 - Bldg 9	12	N/A	N/A	N/A	N/A	N/A	0
SWMU 87 - Bldg 80	2	N/A	N/A	N/A	N/A	N/A	N/A
SWMU 97 - Bldg 236	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 100 - Bldg 218	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 106 - DD3	6	N/A	N/A	N/A	N/A	N/A	0
SWMU 171 - DD2	35	0	N/A	N/A	17	N/A	N/A
SWMU 172 - Bldg 80	12	1	N/A	N/A	N/A	N/A	0
SWMU 173 - Bldg 1297	4	3	N/A	N/A	N/A	N/A	N/A
TOTAL	628	28	74	15	21	23	0

Note:
N/A Indicates no samples were proposed for that particular matrix.

Tuesday, Dec. 12 1995

Charleston Naval Base

RESTORATION ADVISORY BOARD MEETING AGENDA

2:00 PM Location: **Naval Hospital** Charleston @ corner of Rivers and McMillan Avenue. in North Charleston. Meeting will be in the **Cafeteria** located in the basement of the multistory building on the side toward Rivers Avenue.

2:00 PM RAB MEETING

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting

C. Subcommittee Reports

D. Environmental Cleanup Progress Report — Cleanup Team

E. Future RAB Discussion Topics — Mr. Doyle Brittain
   Risk Assessment — Mr. Joe Bower for
   RAB Organizational Changes — Ms. Ann Ragan

G. Remaining Questions and Comments from Visitors

H. Other Business

I. Agenda for Next Meeting

Please mark your calendar: Our next meeting is Tuesday, January 9, 1996. Time to be determined.

Tuesday, Dec. 12 1995

Charleston Naval Basc

RESTORATION ADVISORY BOARD MEETING AGENDA

2:00 PM Location: **Naval Hospital** Charleston @ corner of Rivers and McMillan Avenue. in North Charleston. Meeting will be in the **Cafeteria** located in the basement of the multistory building on the side toward Rivers Avenue.

2:00 PM RAB MEETING

A. Introduction of the RAB Members and Guests

B. Administrative Remarks, Comments on the minutes of last meeting

C. Subcommittee Reports

D. Environmental Cleanup Progress Report — Cleanup Team

E. Future RAB Discussion Topics — Mr. Doyle Brittain
   Risk Assessment — Mr. Joe Bower for
   RAB Organizational Changes — Ms. Ann Ragan

G. Remaining Questions and Comments from Visitors

H. Other Business

I. Agenda for Next Meeting

Please mark your calendar: Our next meeting is Tuesday, January 9, 1996. Time to be determined.

Attachment (1)

PROJECTED ACTIVITY FOR NOVEMBER

- Continue groundwater monitoring well installation in Zone E.
- Continue groundwater monitoring well installation in Zones A & B.
- Resolve regulatory comments on Zones J and L work plans submit final documents.
- Resolve issues with Zone H Draft RFI report and incorporate into Draft RFI reports for subsequent zones (Zones C and I).
- Continue planning for Interim Measures utilizing Shipyard Detachment as a resource.

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR OCTOBER 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Based on funds expected to receive in FY 96, available funds as a result of cost savings and alternative sampling methods)
  Fully funded: Zones A, B, C, E, H, I
  Funds available, not yet negotiated and awarded: J, L
  Funded for RFI Work Plans only: Zones D, F, G

- Remaining to fund for investigation (total requirement of $4.5 Million)
  Zones D, F, G implementation
  Work Plans and implementation for Zone K

- Cost of the Investigation to Date - To be discussed.

PROGRESS FOR OCTOBER

- Zone H - Progress report by Todd Haverkost, Task Order Manager for Zone H and Project Task Order Manager, E/A&H.

- Zones C and I- Progress report by Ginny Gray, Task Order Manager, E/A&H.

- Zone E - Presentation by David Backus, Task Order Manager, Ensafe/Allen & Hoshall.

- Zones A and B - Progress report by Lawson Anderson, Task Order Manager, E/A&H.

Attachment (2)

NAVAL BASE CHARLESTON
RESTORATION ADVISORY BOARD (RAB)
Minutes of 14 November 1995 Meeting

1. Call to Order

The meeting was called to order by Captain Jim Augustin, Navy co-chair of the RAB. The Captain welcomed everyone to the new location at the Naval Hospital and asked for any feedback on the new location. Announced absent RAB members and introduced three new visitors in the audience. The Captain explained the basic ground rules: start the meeting on time, end on time, explain acronyms, and make sure everyone's questions get answered.

2. RAB Members Attending

Captain Jim Augustin	Mr. Virgil Johnston
Mr. Oliver Addison	Mr. Ralph Laney
LCDR Nick Cimorrelli	Ms. Wannetta Mallette-Pratt
Mr. Bobby Dearhart	Mr. Robert Mikell
Mrs. Susan Floyd	Mr. Louis Mintz
Mr. Daryle Fontenot	Ms. Ann Ragan
Mr. Wilburn Gilliard	Mr. Van Robinson

3. Guests Attending

Mr. Tony Hunt	SOUTHNAVFAC
Mr. Rick Davis	SOUTHNAVFAC
Ms. T.B. Fielding	SOUTHNAVFAC
Ms. Kim Reavis	SOUTHNAVFAC
Mr. David Pratt	SOUTHNAVFAC
Lt. Donna Murphy	COMNAVBASE PAO
Ms. Sally Kuhl	COMNAVBASE
CAPT W.F. Nold	CNSY
Mr. Tom Gerken	CNSY
Mr. Joe Bowers	SCDHEC
Ms. Jeannie Olano	SCDHEC
Ms. Jeri Johnson	RDA
Ms. Susan Dunn	Grassroots Conversion Coalition
Mr. Gene Eaton	Atlantic Drilling Corp.
Mr. Les Birtchet	NRRO
Mr. Jim Moore	Concerned Citizen
Mr. Clyde Anderson	Concerned Citizen
Mr. Jay Cornelius	EnSafe/Allen&Hoshall
Ms. Ginny Gray	EnSafe/Allen&Hoshall
Mr. Lawson Anderson	EnSafe/Allen&Hoshall
Ms. Diane Cutler	EnSafe/Allen&Hoshall
Mr. Mark Bowers	EnSafe/Allen&Hoshall

3. Guests Attending, Continued

Mr. Dave Backus	EnSafe/Allen&Hoshall
Dr. and Mrs. James Speakman	EnSafe/Allen&Hoshall
Mr. Todd Haverkost	EnSafe/Allen&Hoshall
Ms. Lisa Brown	EnSafe/Allen&Hoshall
Mr. S.H. Weatherford	EnSafe/Allen&Hoshall
Mr. Jack Mayfield	EnSafe/Allen&Hoshall

4. Comments on Minutes and Administrative Announcements

Captain Augustin asked for comments on last month's meeting minutes which were taken by Barbara Eller of Southern Division. There were no comments, therefore minutes were accepted and will be placed in the Information Repository.

5. RAB Member Concerns

Captain Augustin brought up an issue, drawn from the minutes of the last two meetings, which focuses on the RAB's concern that they don't actually advise on anything. So far, there have not been many issues to advise on, however, there are some.

As a review, the RAB Charter states that the RAB is a forum for discussion and information exchange on environmental cleanup issues between the cleanup team and the community. RAB members will review and provide comments on environmental documents. In order to increase the RAB's advisory role, they need to work more closely with the cleanup team. Captain Augustin requested that the BRAC Cleanup Team (Daryle Fontenot, Ann Ragan, Bobby Dearhart, Doyle Brittain) all sit together to make themselves more visible. The Captain also recommended to Admiral Watkins that Daryle Fontenot replace him in the Navy co-chair position since the Cleanup Team should be emphasized during these meetings.

Captain Augustin asked for suggestions on how to make the RAB a more participatory team. He recommended that the cleanup team should be the focal point for questions and recommendations. In addition, meeting minutes should include an encapsulated summary of the evening's recommendations or ideas, and should highlight the RAB advisory comments to the BRAC Cleanup Team.

Mrs. Susan Floyd inquired whether the RAB should address the cleanup team, or the co-chair. Since Daryle Fontenot is part of the cleanup team and has been recommended as co-chair, he can be addressed.

6. Subcommittee Reports

Daryle Fontenot reported that the Public Relations Subcommittee met prior to the RAB

meeting and all members were present. The Community Relations Plan has been finalized and was passed out to all RAB members at the beginning of the meeting. Anyone who wants their own copy should contact the Base Closure Office.
Today, the subcommittee worked on Fact Sheet #5, the FOSL process, and may have it ready for RAB review in December, or at the latest, in January.

Captain Augustin reminded Daryle that the Public Relations Subcommittee was charged with deciding on the location for upcoming RAB meetings. Mr. Fontenot responded that the subcommittee did not discuss it at this meeting. The Captain said to keep it on the agenda. The Naval Hospital may be a good place to keep having the meetings since it meets a lot of the criteria. Other suggested locations include the Cherokee Church for daytime meetings, and the Department of Public Services, just down the road. Any other suggestions should be addressed to the Public Relations Subcommittee.

7. Environmental Cleanup Progress Report

Daryle Fontenot introduced the three part Environmental Cleanup Progress Report: Tony Hunt will present the RCRA Facility Investigation (RFI) progress for the month of October, EnSafe/Allen&Hoshall Task Order Managers will provide individual Zone updates, and Mr. Fontenot will discuss expenditures.

Tony Hunt distributed a handout which discussed Zone funding and progress. A copy of this handout can be found in the attachments to these minutes. Funding is available for Zones J and L, but not yet negotiated and awarded. Total funding requirement is $4.5 million. Until this requirement is met, the Navy still can not begin implementation of Zones D, F, and G or work plans and implementation for Zone K.

Todd Haverkost, Task Order Manger for Zone H, stated that E/A&H will only address the zones where field activities are completed or ongoing. Zone H is the first zone for which all field work has been completed. The draft RCRA Facility Investigation (RFI) Report was submitted on July 31 for review and comment by SCDHEC and EPA. E/A&H has received some draft comments allowing them to address a few of the technical issues.

Mr. Haverkost discussed some of the technical decisions E/A&H and regulators have been discussing. The first issue is groundwater classification, specifically, whether the groundwater is considered a useable source. SCDHEC's policy is that all groundwater in the state is classified as drinking water. Other alternatives are currently being considered.

Cleanup Criteria and Future Land Use are closely related issues also requiring technical decisions. E/A&H has been asked to make recommendations regarding which sites need further investigations and which will fall out. Four of the 31 Zone H sites will fall out, but issues remain with 27 remaining sites, specifically, what is the threshold where cleanup has to take place, and will sites be cleaned up to residential or industrial levels. These are risk-management decisions and must be made by the regulators.

Jeri Johnson asked what the definition is for residential and industrial. Mr. Haverkost responded that housing and playgrounds are examples of residential, industrial is a little harder to define and come up with cleanup values for. This will be a risk-management decision that has to be made by the regulators.

Susan Floyd asked who makes the final determination on what is clean. Again, the response was that it is up to the regulators to render a risk management decision.

Captain Augustin reiterated that this topic, "how clean is clean," is one that has been ongoing and is difficult to determine. The Captain asked if anything new had been decided by the regulators, and added that once the determination is made for Zone H, the rest of the zones will be able to move along more quickly.

Ann Ragan replied that the State's policy is to clean up to residential levels. The national trend is moving toward industrial levels, however, there is no set formula for this. The State would have to look at a cost/benefit analysis to determine the cost savings of cleaning to industrial rather than residential standards.

Virgil Johnston mentioned that Zone H will be used for light industrial purposes as it is now. It will not be used for residential purposes and the decision is holding up the RFI report. Ann Ragan pointed out that leasing is being allowed, and the decision is not holding up leasing. Mr. Johnston responded that it is, however, holding up conveyance which is also being worked on.

Jim Moore asked if anybody knows when the Zone H RFI report will be finalized. Joe Bowers replied that it would be completed by early 1996. Mr. Moore also asked if we know what contaminants are in the ground at Zone H. Mr. Haverkost answered yes, but that we do not know the action levels for cleanup. Mr. Moore asked why this information has not been provided to the RAB. Tony Hunt responded that it has, in fact, been provided.

Mr. Moore also asked that if nothing has been found at some of the parcels in Zone H, why can't the individual parcels be leased or transferred. Tony Hunt said that is exactly what is being done, but background and risk must first be determined. Background concentrations must be determined in the dredge/fill material that makes up Zone H. Background sampling took place at the same time as the other Zone H sampling, and is being reviewed as part of the Zone H RFI report by the regulators.

Captain Augustin asked if background has been established yet. SCDHEC answered not yet, that data is currently being reviewed.

Lou Mintz stated that he requested and received a report from SouthDiv that established that $439,000 has been spend on sampling and $2.6 million on laboratory analyses, yet he still doesn't know what's been found at the Base. Mr. Mintz wants to know where the

money is going and where to get better information. He also stated that he feels he's not getting his money's worth, and very little has been accomplished for the money spent. Captain Augustin explained that Daryle Fontenot will address expenditures later in the presentation.

Captain Augustin recapped the previous discussion about background. Jeri Johnson stated that it seems to be a policy issue that's holding up the process. Ann Ragan explained that SCDHEC is in the middle of re-evaluating its policy, but for now, the directive is to clean up to residential levels.

Lou Mintz questioned Ms. Ragan if she was saying that the State is directing the Navy to clean up the Base to a level acceptable for playgrounds. Ms. Ragan said that until the State can get policy changes approved, they will continue to require cleanup to residential levels. Furthermore, it is in the RAB's best interest to clean to residential levels, since it may only cost a little more, and provides greater flexibility in lease and transfer opportunities.

Captain Augustin stated that this is a good issue for the RAB to "advise" on. Susan Floyd stated that she would like to see the cleanup level remain at residential standards.

Ginny Gray, E/A&H Task Order Manager presented material for Zones C and I. A handout of this material is attached to the minutes. Sampling for Zones C and I ran concurrently and was finished this summer. Zone C has 2 Solid Waste Management Units (SWMUs) and 11 Areas of Concern (AOCs), and 249 soil samples were collected. Zone I has 2 Solid Waste Management Units 15 Areas of Concern, and 176 soil samples were collected. E/A&H has started the report preparation stage for both of these zones. All geotechnical data, chemical analytical data, and engineering parameters data that will be used in the Corrective Measures Study has been received. At the end of the week a final QA/QC check will be completed on the validated data.

QA/QC stands for Quality Assurance/Quality Control. Once laboratory analysis is finished, validators look at the data for completeness and accuracy saying it is valid and useable for the RFI Report. This validated data then goes through a QA/QC check at E/A&H to verify that the data package has no errors.

Lou Mintz asked what the lab does, since E/A&H has to go through all these additional steps, and why doesn't E/A&H just run the analysis. Ms. Gray explained that the lab analyzes the samples and produces analytical results. E/A&H does not have the equipment to analyze these samples. The lab has specialized instrumentation and procedures that they must follow. They have method detection limits, practical quantitation limits, and a system of checks and balances they use to analyze and double check the data they produce.

Susan Floyd requested that someone come up with a step by step diagram or flow chart to describe the data validation process. Ms. Gray confirmed that one of the E/A&H

chemists could provide that information.

Ms. Gray gave a quick run down of the non-critical sections of the document that have been produced. The critical sections have not yet been developed because E/A&H must wait for the Zone H technical issues to be resolved before they can continue with the RFI reports for any of the other zones. E/A&H is completing all the sections of the report that they can so when the technical issues are resolved, they can move ahead quickly to produce the entire document.

Susan Floyd asked if any re-sampling needs to be done and will any areas of concern drop off, ie. require no further action. Ms. Gray confirmed that all sampling has been completed and that she does not yet know if any areas of concern will drop off.

Jim Moore asked if the Corrective Action Management Plan (CAMP) schedule date of December 18th will be met for these Zones. Ms. Gray answered that no, they will not. Mr. Moore then asked how the State felt about that. Joe Bowers, SCDHEC answered that they realize there are a number of difficult issues that need to be ironed out and they're doing their best to resolve them and minimize delays. Hopefully the reports will be delayed only a few more weeks and available at the January RAB meeting.

Jim Moore asked for clarification on the background issue, specifically, Zone H is comprised of dredge material, but Zones C and I are not, so how can the technical issues for H be the same as for C and I. Ms. Gray explained that the soil type and data may be different in each zone, but the statistical approach for determining background will be the same, and that's what the regulators are working on.

Susan Floyd wanted to verify that once the analytical approach for determining background has been decided upon for H, that the completion of the other Zone's RFI reports will move along at a rapid pace. Captain Augustin, E/A&H, and Joe Bowers all concurred.

Lou Mintz expressed his disappointment that this process has taken so long, and that it seems that in all the years environmental cleanup has been ongoing across the country, that procedures such as the statistical approach for determining background should have been worked out and standardized years ago.

Dave Backus provided an update on Zone E, the Controlled Industrial Area (CIA), which comprises 120 acres. Sampling is currently underway at this Zone. Zone E comprises 26 SWMUs, 54 AOCs, and 25 supplemental well locations. In Zone E there are so many sampling points, that a typical grid method didn't work. With approval from the regulatory agencies, E/A&H used a supplemental sampling plan. E/A&H started field work in August 1995.

Lou Mintz asked about the discrepancies in numbers between Tony Hunt's presentations and Mr. Backus' presentation. Mr. Backus stated that it may be due to a change in the

work plan.

The question, what is a wipe sample, was asked. Mr. Backus explained that it is a sample from a floor, wall or other surface that is collected with a clean, sterile swab.

Mr. Backus continued by providing statistics on proposed and completed sampling through October 31, 1995. This material can be found in the handout attached to these minutes. Rotosonic drilling will start at Zone E once it is completed at Zones A and B.

Mr. Backus explained that there are 10 different kinds of underground utilities in the CIA which made choosing sampling points very difficult. E/A&H hired a subcontractor to locate these utilities. Out of 430 boring locations, they only had to make one change in sampling locations as established in the workplan.

Susan Floyd inquired about the type of utilities that are underground and Mr. Backus listed electrical, steam, and oxygen as a few. Mr. Backus also explained that experienced shipyard workers were used extensively to collect preliminary information on the utilities.

In response to the concern about using local labor, Mr. Backus offered that the drilling subcontractor being used, Atlantic Drilling, is a local firm, and another local firm was hired to pull cores from the drilled holes.

E/A&H is well ahead of schedule for Zone E. Samples are being sent to the lab and analyzed as they are being collected. The lab analyzes and returns the data in 30 days. Then, 30 days after receipt of data, data is validated. The RFI report is scheduled for November 1996.

A discussion about the lab's 30 day turnaround ensued. The normal turnaround time is 30 days, which is the standard for all Zones. A quicker turnaround can be contracted but it would cost a premium. Typically, the labs analyze the samples within a few days but need the remainder of the time to process the data.

LCDR Nick Cimorrelli stated that most of Zone E is covered in concrete and asphalt, but the sampling plan doesn't show that those materials will be sampled. Mr. Backus explained that the numbers for soil also include some asphalt samples, however, most are soil because they are primarily interested in environmental impact, (what affects the soil and water).

Captain Augustin announced that the presentation for Zones A and B would not be given due to time constraints. The handout material for that presentation is included in the attachments to these minutes.

Tony Hunt mentioned that the rotosonic drill rig will be in the field for the remainder of the week. If anyone wants to see how it works, contact the Base Closure Office.

Lawson Anderson, Task Order Manger for Zones A and B, added that rotosonic drilling is more productive than conventional drilling, allowing for 3 or 4 wells to be completed in one day opposed to only 1 or 2 using conventional methods.

Daryle Fontenot gave a presentation on where the money for the RCRA Facility Investigation is going. $22 million has been budgeted as of October 31, 1995, $6.7 million has been spent of which 50% has gone to five laboratories, 30% to E/A&H for labor and overhead, 5% for drilling and boring subcontractors, and 15% for Other Direct Costs (ODCs) which include document reproduction, mail, freight, supplies, rental equipment and travel. The $22 million includes funding for the RCRA Facility Investigation as well as the Corrective Measures Study.

Van Robinson asked if $22 million is the final figure since more funding is still needed for Zones J, K, and L. Mr. Fontenot responded that the final figure will probably be more like $27 million.

Lou Mintz asked what the 30% of funds that have gone to E/A&H is for. Mr. Fontenot explained it is for labor including geologists, drillers, engineers, and field technicians. Mr. Mintz also asked if E/A&H's award fee (profit) is included in these numbers, how often is the award fee, and how much. Mr. Fontenot explained that the award fee is not included in these numbers, is administered every six months, and the total dollar amount for the past four years is approximately $400,000.

Mr. Fontenot continued by providing information on total costs to date by zone. This information can be found in the attachments to these minutes.

Ann Ragan asked if the unspent balance of the $22 million is in the bank, waiting to be spent. Mr. Fontenot confirmed but clarified that it has already been allocated by Zone. Mrs. Floyd asked who is supervising the money and its allocation. Mr. Fontenot responded that Southern Division is in charge of the money.

Mr. Fontenot presented information on local subcontractors. E/A&H has invested $628,618 in local subcontractors to date.

Mr. Mintz stated that he received information reporting that $2 million has been spent on laboratories. Mr. Fontenot explained that the $628,618 spent on local subcontractors does not encompass all the lab work that is being completed. Dr. Jim Speakman, E/A&H, added that 5 national labs are being used and include Pace, with facilities nation-wide, Savannah, which has facilities in a number of states, and CompuChem, based out of North Carolina. Dr. Speakman also added that the current contracts are expiring and new contracts will be awarded. E/A&H is taking measures to include local labs with the appropriate qualifications.

8. <u>Update on Redevelopment Authority Action</u>

Virgil Johnston announced that the Border Patrol favors going to Arkansas but the RDA has picked up another group which will provide about the same number of jobs and request the same number of buildings. RDA is looking forward to leasing about 85% of the shipyard. Quite a few people have come in and have requested property for the short term, but once they find out how long the process takes, they lose interest.

CMCC is the biggest contender for the shipyard right now but they are getting disillusioned with the length of the process. If the RDA loses CMCC, there isn't anyone else looking to take over the shipyard.

Susan Floyd asked what the problem is with the Finding of Suitability for Lease (FOSL) process. Mr. Johnston answered that there are so many of them and they each take a couple of months. So far, three leases have been finalized; one for the Post Office and one for the Marina, and one for Drydock 5, others are in the works.

A general discussion followed, regarding the amount of time it takes each group to review and approve FOSLs. Ann Ragan stated that SCDHEC has provided comments on over 75 Buildings and asked if there is any way to track and prioritize them. Further she asked how many buildings the RDA has asked to lease. Mrs. Floyd asked since SCDHEC has moved the FOSLs along, if the holdup is by the Navy.

Captain Nold responded by reminding everyone that the Naval Base does not officially shut down operations until April 1, 1996. The closure process is supposed to make the property available on that date. Everything that is leased before that time is above and beyond what is required. Captain Nold expressed his frustration with the length of the process as well, but reminded everyone that they're dealing with a process involving a number of agencies and lots of paperwork, and there's no way around it. The Navy and Southern Division are dedicated to the process and will continue to do their best in the cleanup and closure process.

Jim Berotti from Southern Division added that he was encouraged by this discussion. He sees the cleanup team as a center hub for the cleanup and closure. The cleanup team is responsible for many of the important technical decisions relating to the RFI, and is also relied on heavily by the RDA in their efforts to lease and convey the property. Perhaps priorities need to be decided regarding the cleanup team's resources.

A discussion regarding priorities followed and concluded with the RDA agreeing to provide a list of their FOSL priorities.

9. Shipyard Radiological Surveys Update

Tom Gerken provided a progress report on the Shipyard Radiological Surveys. A handout with supporting information is attached to these minutes. Surveys are in the final stages for both the Shipyard and Naval Base. The shipyard has the funding to complete the

radiological release by April 1, 1996. As explained previously, they are looking for 2 types of radioactive materials, NNPP RAM and GRAM. Survey and release plans have been prepared and approved by the Navy, EPA, and SCDHEC.

Mr. Gerken explained that they found about 20 sites where very low levels of radioactivity was detected. Remediation has taken place on most of the affected areas. The DRMO is the only area that will not be remediated prior to closure because it will still be in use after the Shipyard closes. Another organization will complete the DRMO surveys. Both SC DHEC and EPA overcheck their results through site visits.

10. Other Questions and Comments

Captain Augustin requested that due to time constraints, if there were any additional questions, to contact the appropriate person after the meeting.

11. Other Business.

Captain Augustin announced that the hospital will provide anyone who is interested with an escort to their car. Anyone interested in seeing the rotosonic drill rig in action this week should call the Base Closure Office.

Ann Ragan introduced the new SCDHEC project engineer, Jeannie Olano, who will be assisting with the Charleston project.

The next RAB meeting will be held on Tuesday December 12 in the afternoon. Check the next meeting agenda for specifics on time and location.

12. Adjournment

Summary of RAB Recommendations and Suggestions

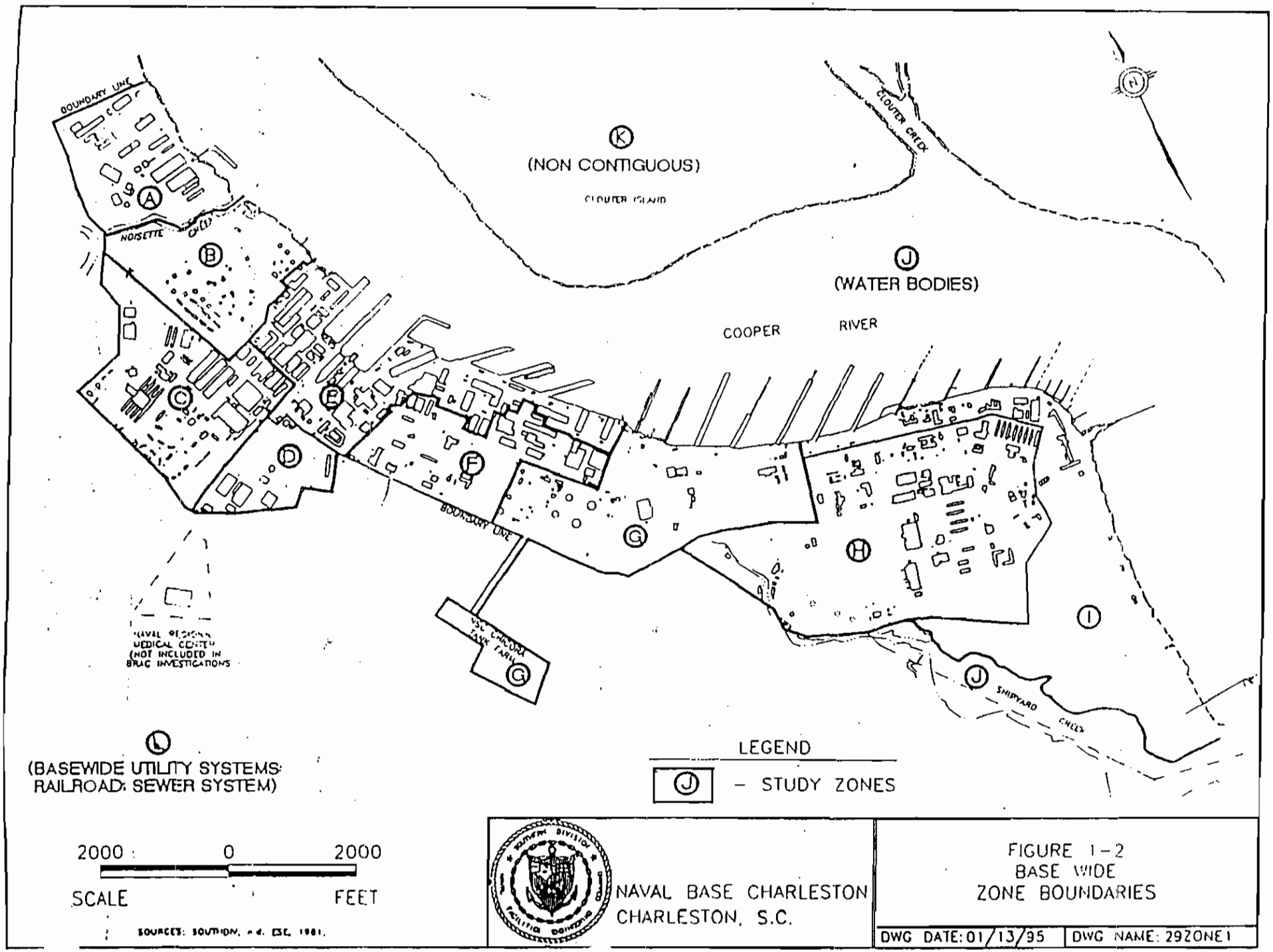
- Susan Floyd stated that she would like to see cleanup required at residential standards.
- Multiple RAB members asked for greater detail on Zone H sampling results.
- Lou Mintz requested expenditure information for Other Direct Charges and Laboratories
- E/&AH will provide a flow diagram of validation process

Attachments to Minutes

(1) November 14, 1995 RAB Meeting Agenda
(2) RFI Progress Report for October 1995
(3) Zone H Site Summary
(4) Zones C and I Site Summary
(5) Zone E Site Summary
(6) Zones A and B Site Summary
(7) RFI Expenditures "Where Does All That Money Go?"
(8) Radiological Controls Progress Report

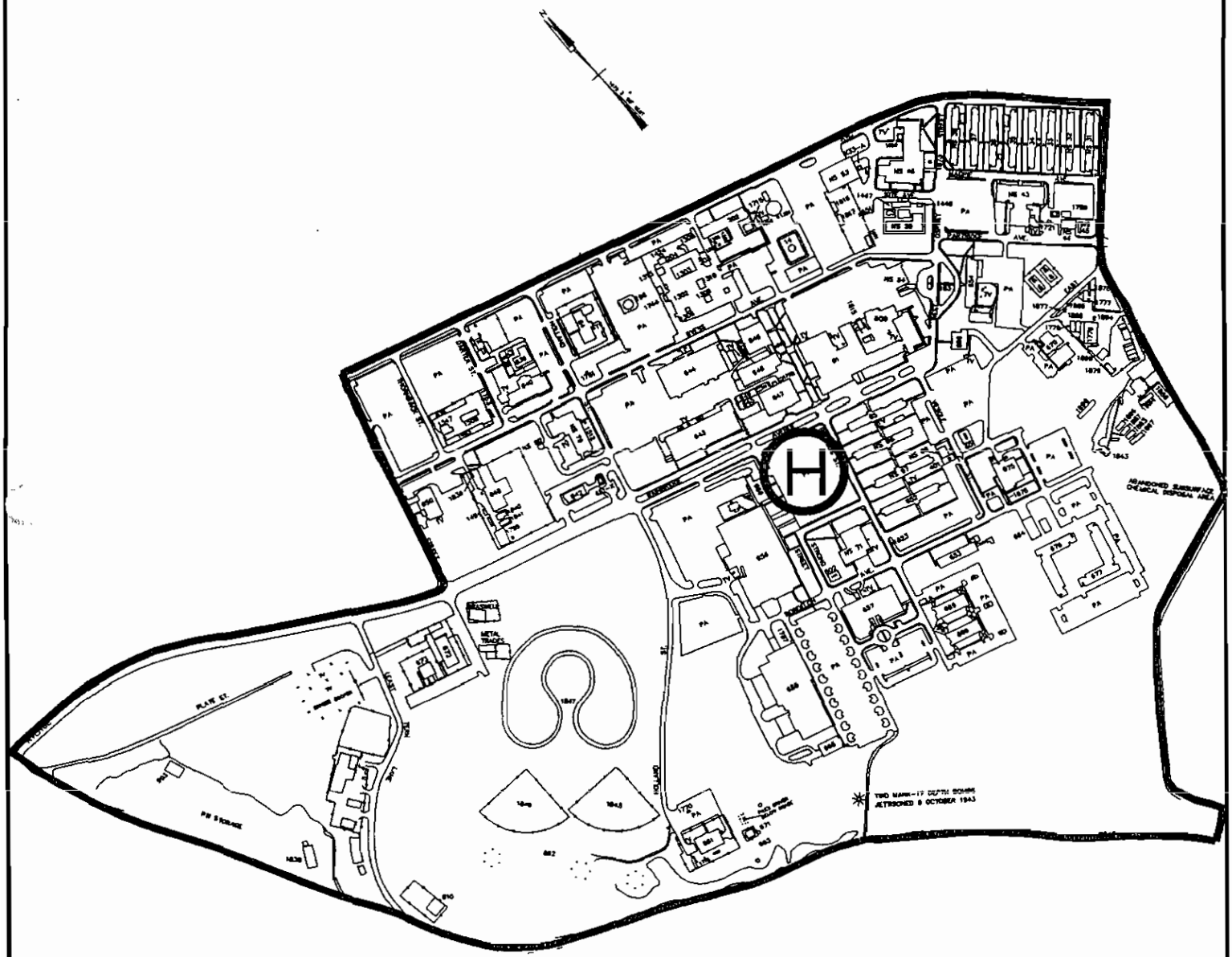
Minutes approved by: _____ _____

J.H. Augustin	**Don Harbert**
CAPT, CEC, USN	**Co-Chairman**
Co-Chairman	


BOUNDARY LINE
NOISETTE CREEK
(NON CONTIGUOUS)
CLOUTER ISLAND
CLOUTER CREEK
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NAVAL REGIONAL MEDICAL CENTER (NOT INCLUDED IN BRAC INVESTIGATIONS
SHIPYARD CREEK
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
- STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES: SOUTHDIV, et al. ESE, 1991.
NAVAL BASE CHARLESTON
CHARLESTON, S.C.
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE: 01/13/95
DWG NAME: 29ZONE1

NAVAL BASE CHARLESTON RFI
ZONE H SITE SUMMARY

* 12 SWMUs (SOLID WASTE MANAGEMENT UNITS)
* 18 AOCs (AREAS OF CONCERN)
* 719 SOIL SAMPLES
* 73 SHALLOW MONITORING WELLS
* 19 DEEP MONITORING WELLS



Attachment (3)

ENSAFE/ALLEN & HOSHALL CONCLUSIONS

- **No COC's**
  AOC 654
  AOC 659
  AOC 660
  AOC 662

- **Industrial Worker Exposures**
  SWMU [Includes SWMU 19, 20, 121]
  AOC 655

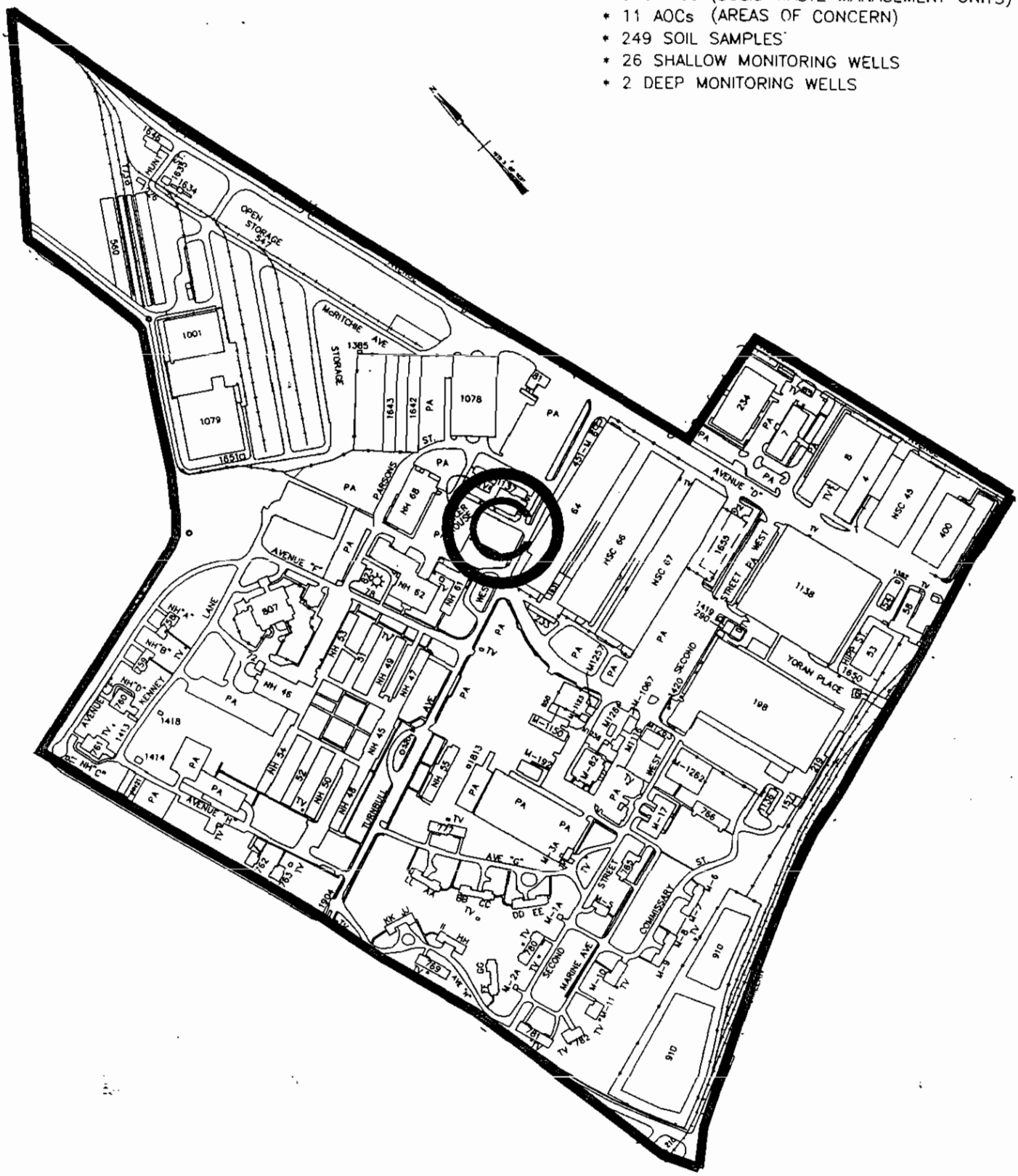
- **Residential Exposure**
  The Remainder

TECHNICAL DECISIONS

TOPIC	ZONE H RFI	COMMENTS
Groundwater Classification	Potable	Saline Conditions Public Supply
Cleanup Criteria Background Conditions vs. Risk-Based	Risk-Based	Lead Agency
Future Land Use Residential vs. Industrial	Both Assessed	No-Action Sites Clean-up Extent
Land Surface Improvements	Bare Soil (Pavements Removed)	Relates to Future Use

NAVAL BASE CHARLESTON RFI
ZONE C SITE SUMMARY

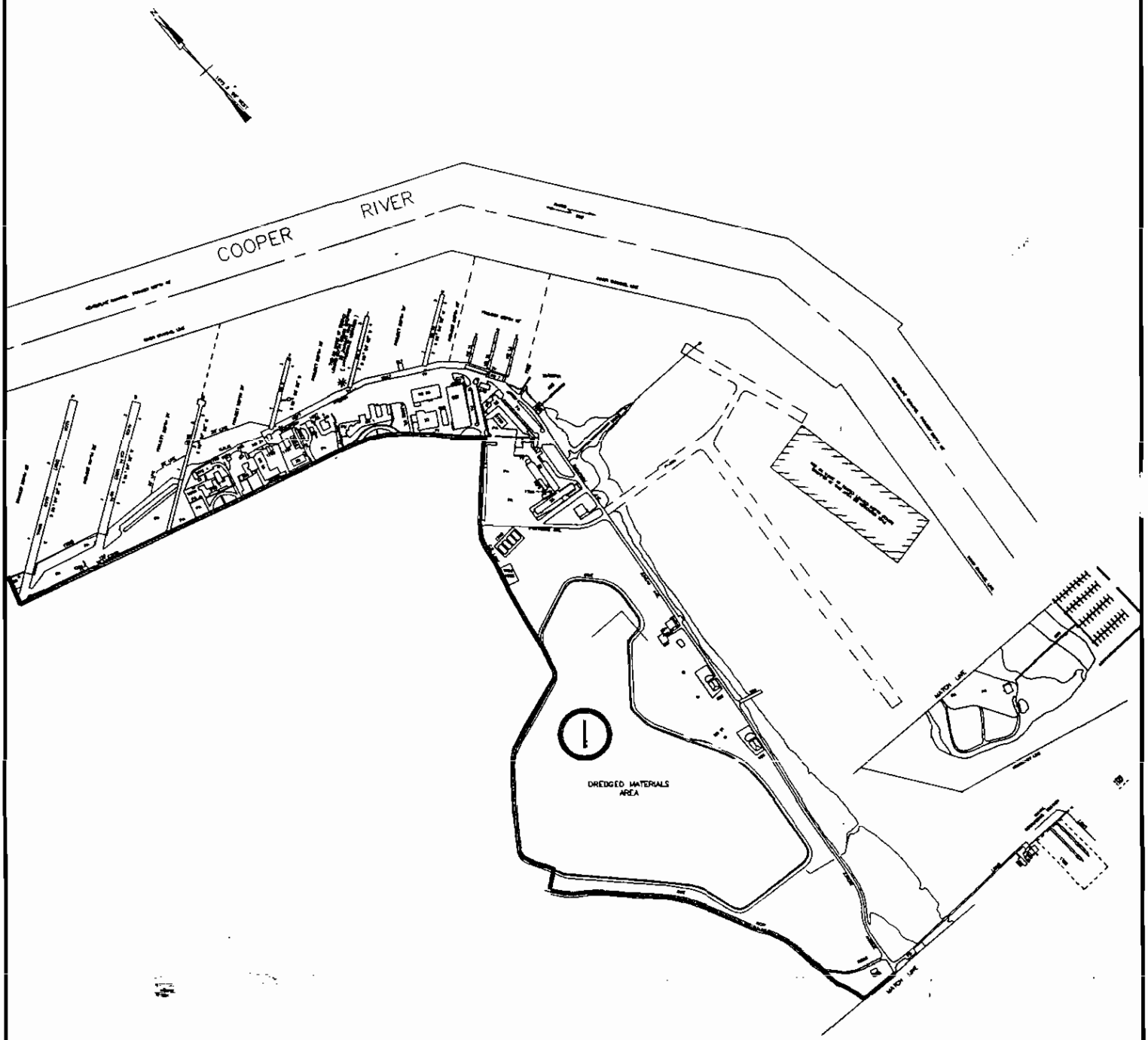
* 2 SWMUs (SOLID WASTE MANAGEMENT UNITS)
* 11 AOCs (AREAS OF CONCERN)
* 249 SOIL SAMPLES
* 26 SHALLOW MONITORING WELLS
* 2 DEEP MONITORING WELLS



Attachment (4)

NAVAL BASE CHARLESTON RFI
ZONE I SITE SUMMARY

* 2 SWMUs (SOLID WASTE MANAGEMENT UNITS)
* 15 AOCs (AREAS OF CONCERN)
* 176 SOIL SAMPLES
* 37 SHALLOW MONITORING WELLS
* 19 DEEP MONITORING WELLS



Status of Zones C & I

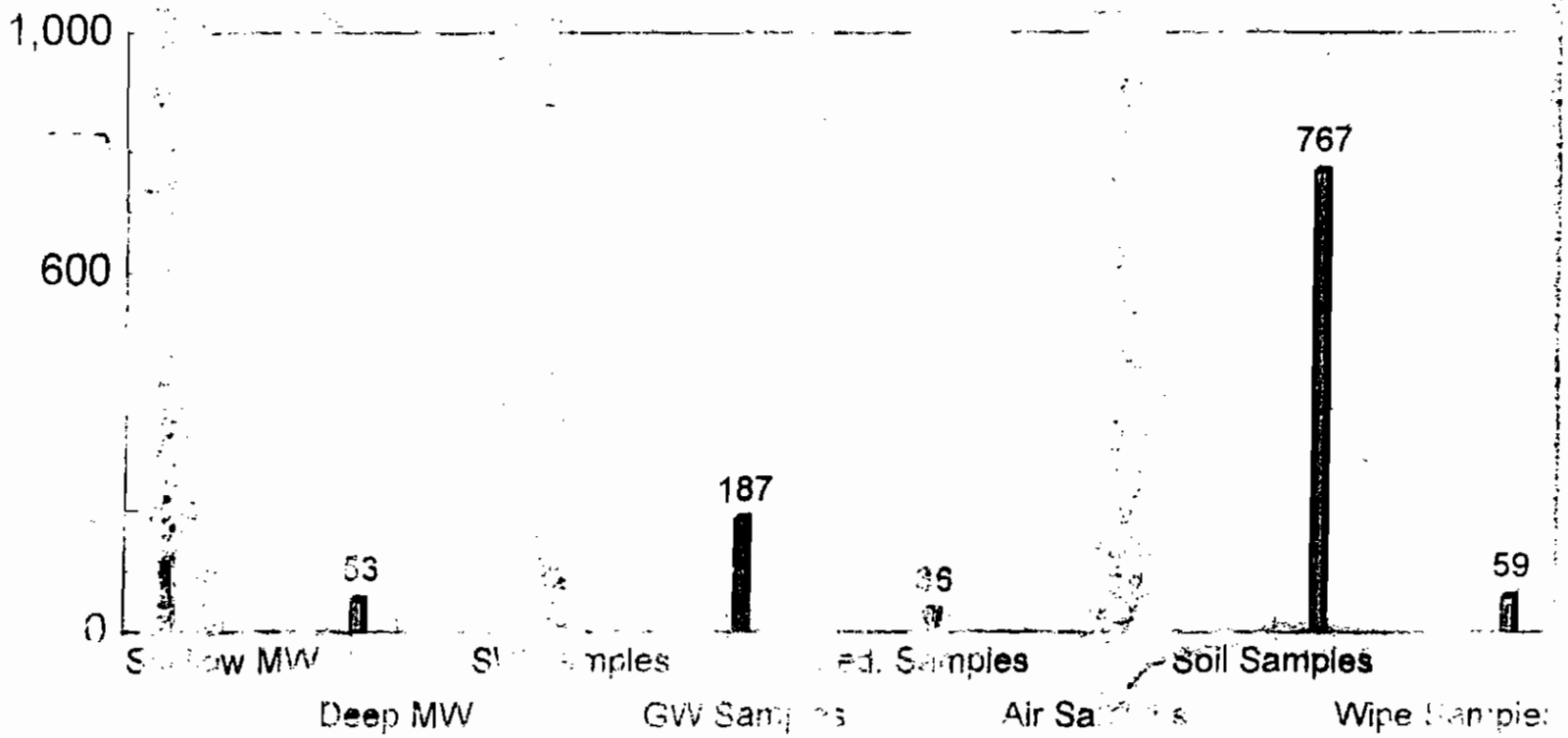
- Analytical data have been received and validated

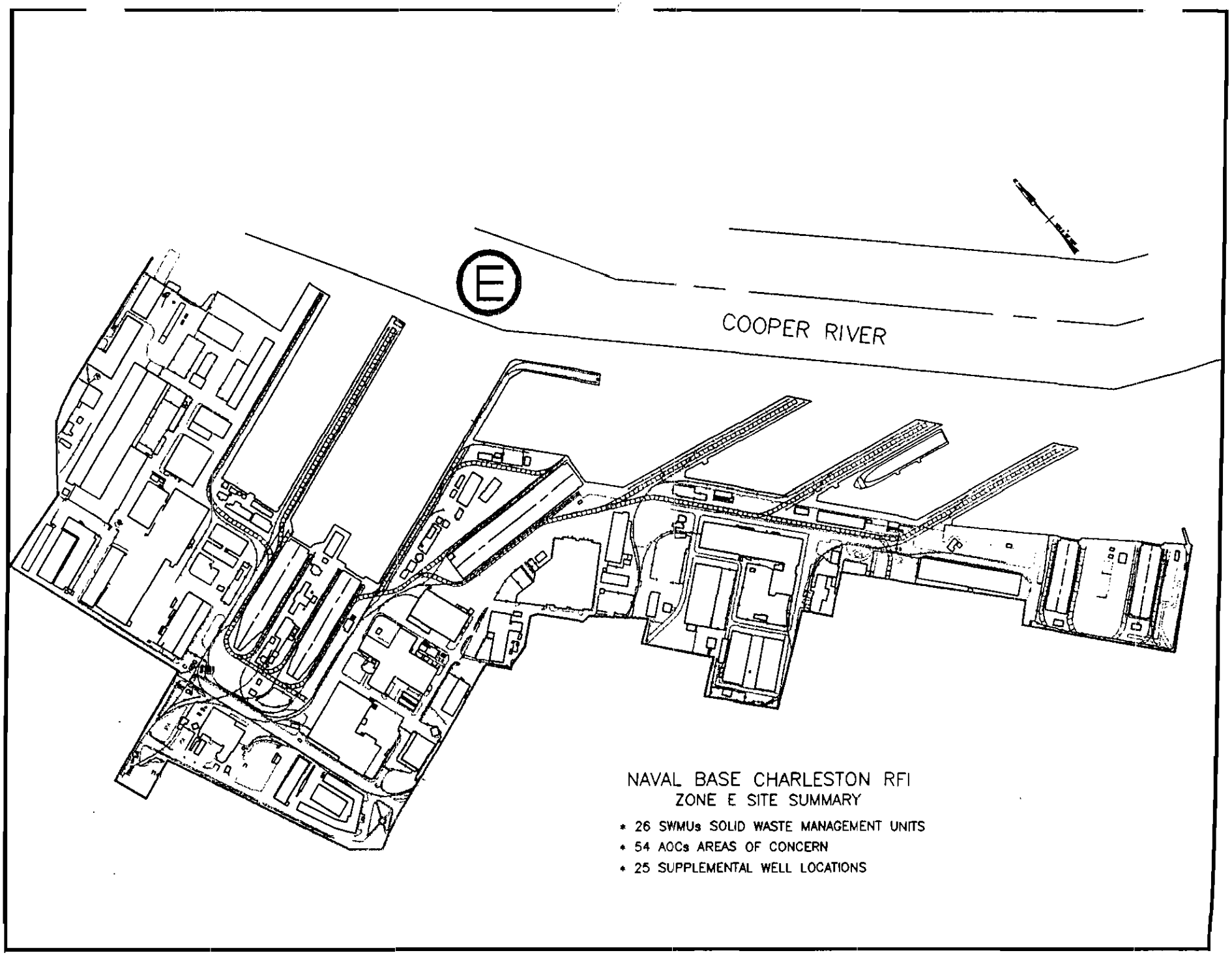
- Sections 1, 2, & 3 which include the introduction, physical setting, and background information have been prepared, peer reviewed, and tech edited.

- The critical sections (*Nature & Extent of Contamination*, *Fate & Transport*, the *Baseline Risk Assessment,* and *Conclusions*) are on hold pending resolution of the technical issues in Zone H.

- Data evaluation and interpretation will be initiated early next week.

Naval Base Charleston RFI
Zone E - Proposed Samples



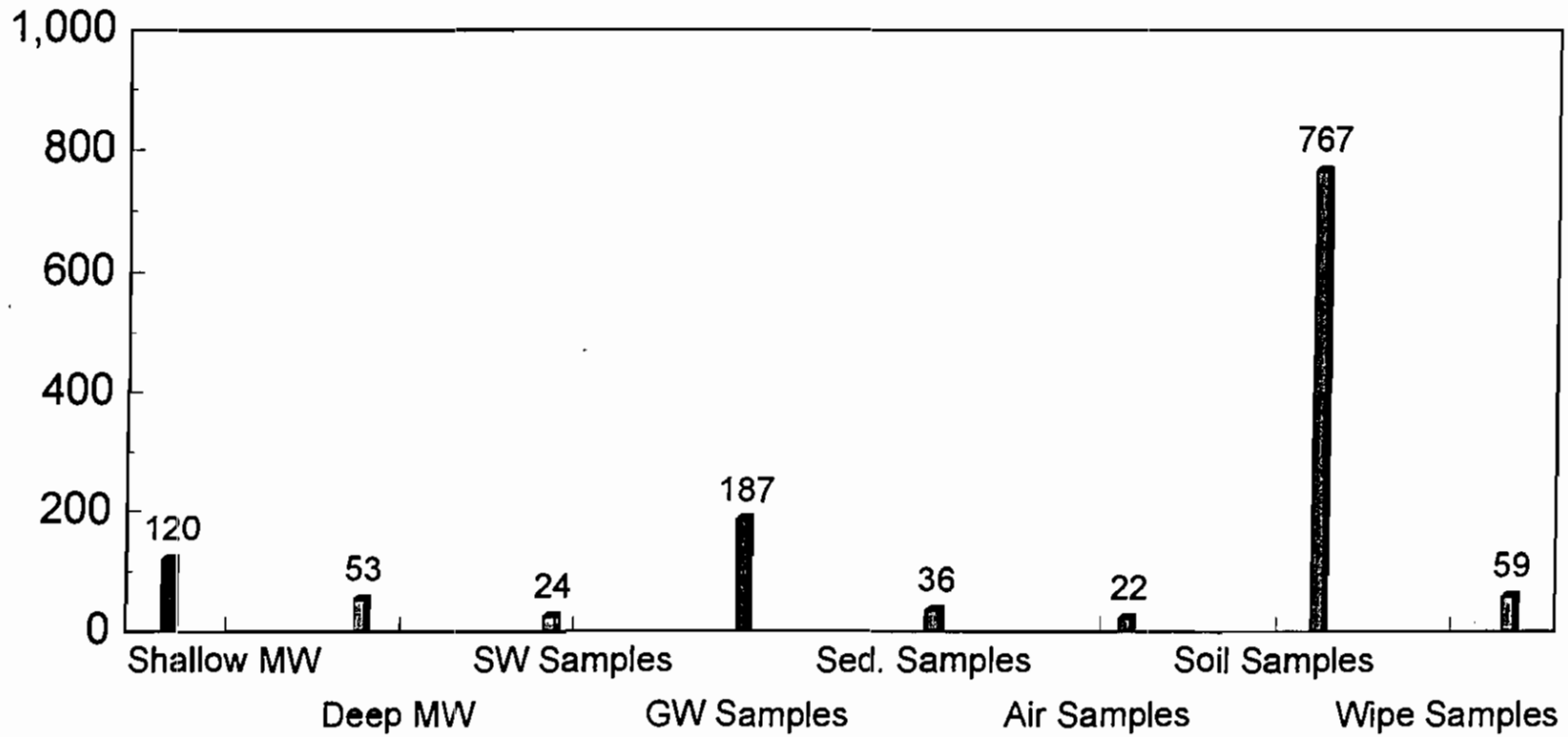


NAVAL BASE CHARLESTON RFI
ZONE E SITE SUMMARY

- 26 SWMUs SOLID WASTE MANAGEMENT UNITS
- 54 AOCs AREAS OF CONCERN
- 25 SUPPLEMENTAL WELL LOCATIONS

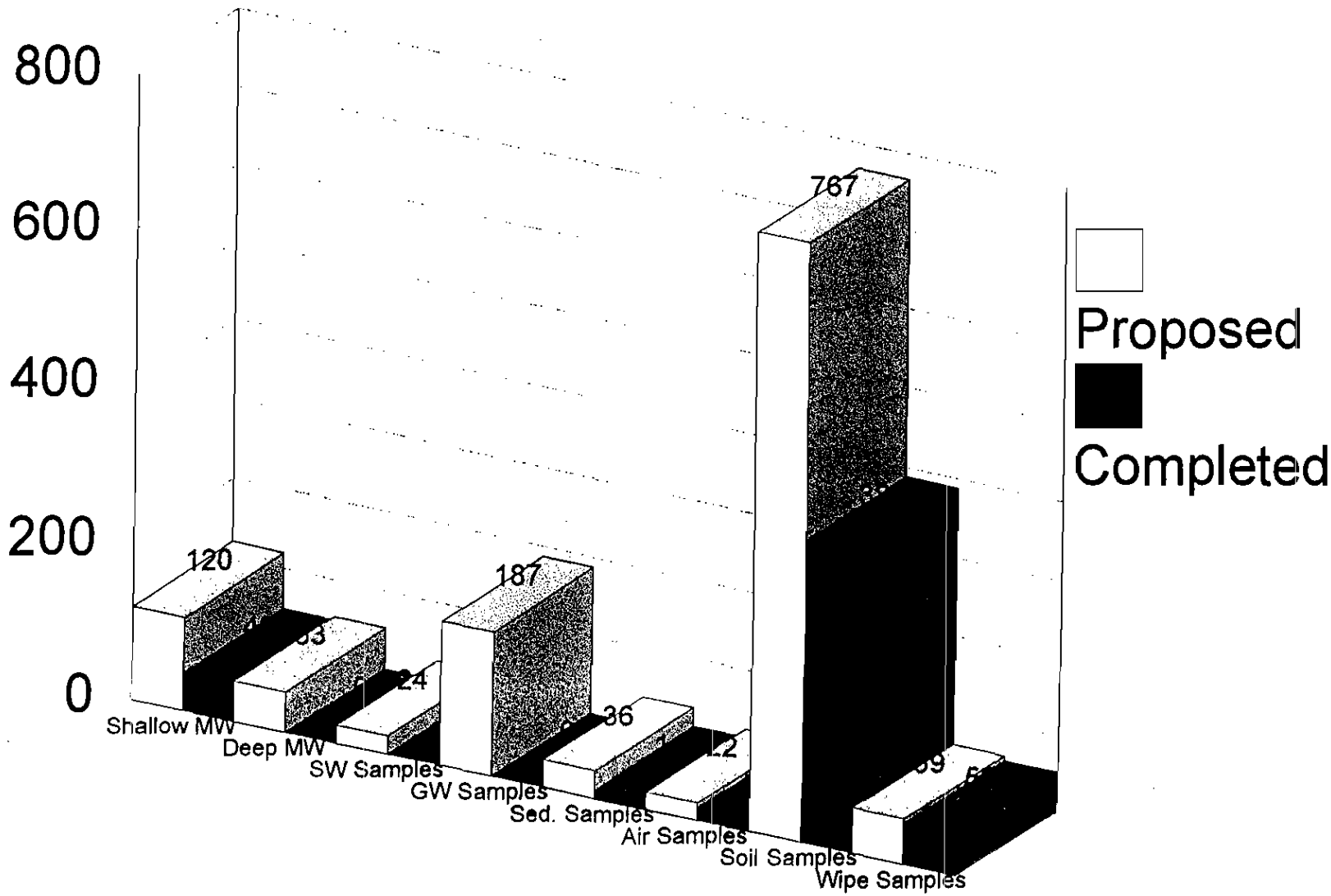
Attachments (5)

Naval Base Charleston RFI
Zone E - Proposed Samples

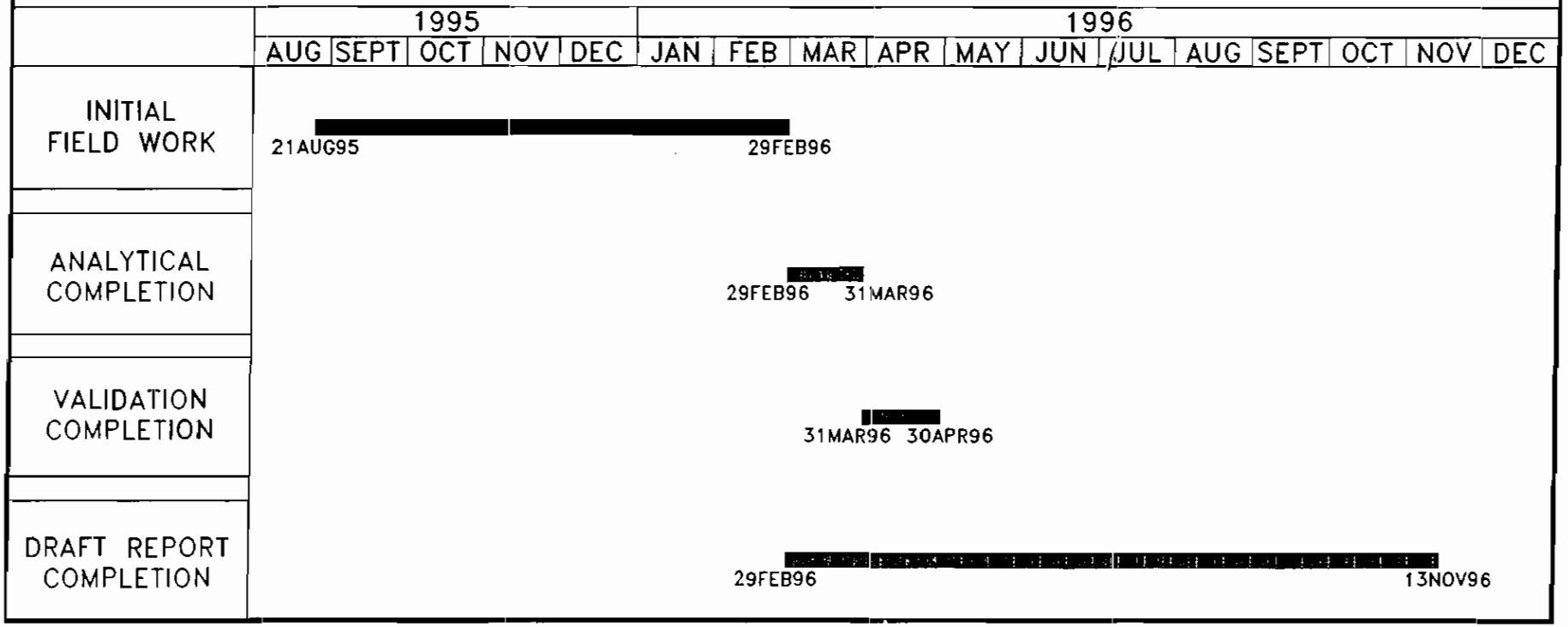


NAVAL BASE CHARLESTON RFI

PROGRESS THROUGH OCTOBER 31, 1995



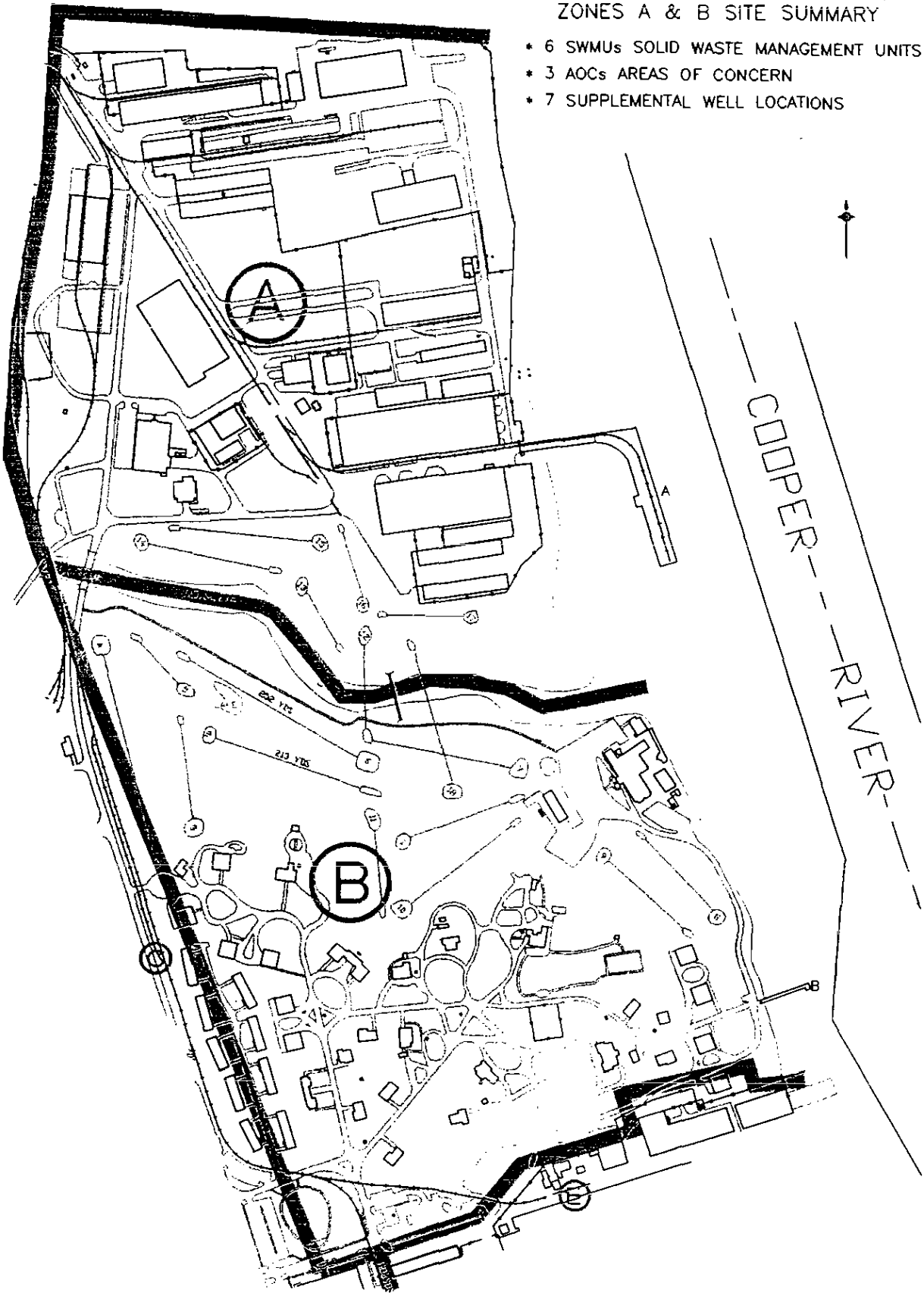
NAVAL BASE CHARLESTON RFI
ZONES E – FIELD INVESTIGATION SCHEDULE



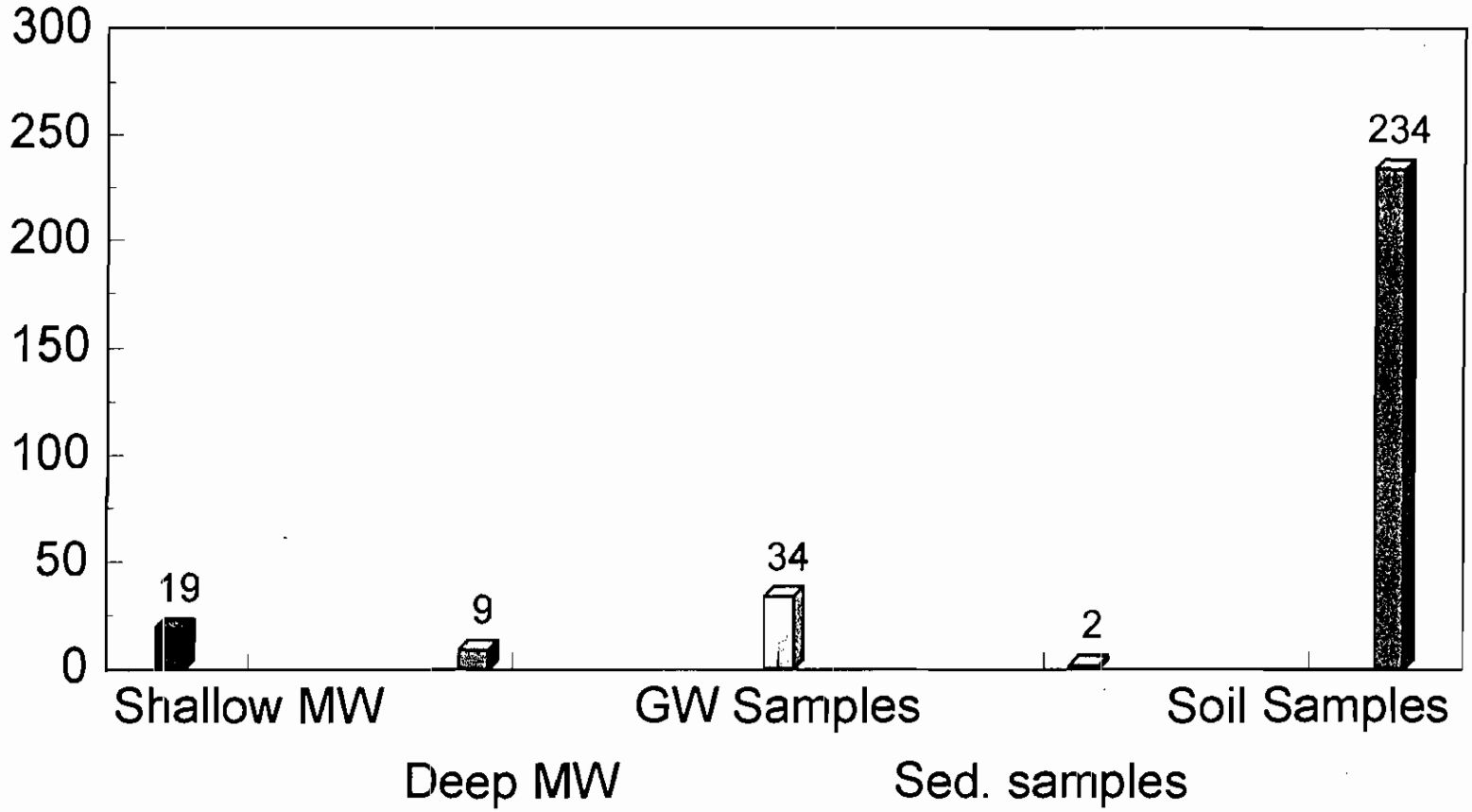
DWG NAME: 29ZNEFIS

NAVAL BASE CHARLESTON RFI
ZONES A & B SITE SUMMARY

* 6 SWMUs SOLID WASTE MANAGEMENT UNITS
* 3 AOCs AREAS OF CONCERN
* 7 SUPPLEMENTAL WELL LOCATIONS

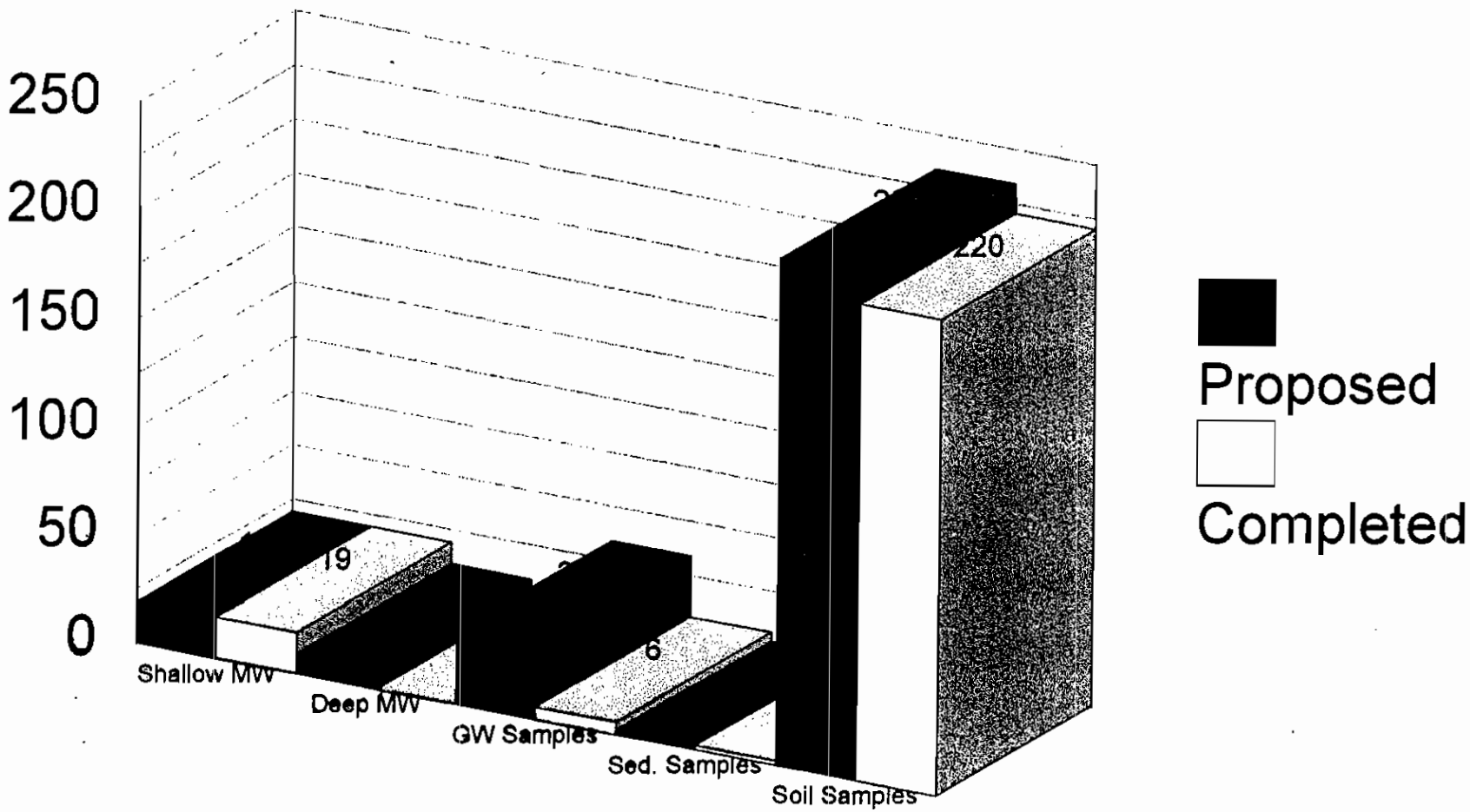


Naval Base Charleston RFI
Zones A & B - Proposed Samples

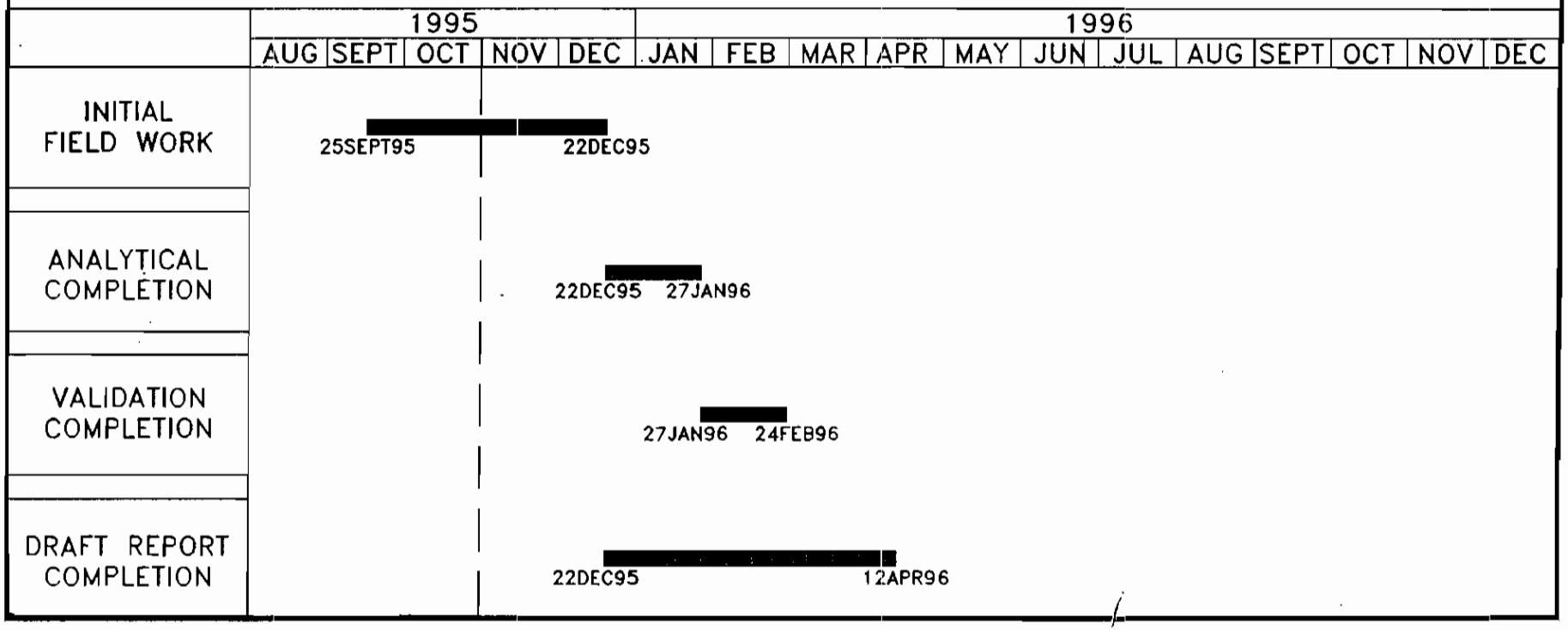


NAVAL BASE CHARLESTON RFI ZONES A & B

PROGRESS THROUGH OCTOBER 31, 1995



NAVAL BASE CHARLESTON RFI
ZONES A & B – FIELD INVESTIGATION SCHEDULE

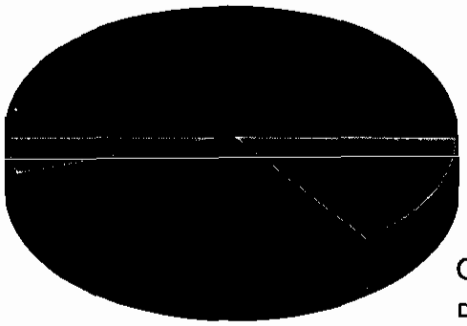


DWG NAME:29ZNAFIS

Where Does All That Money Go?

Charleston NS Total Budget
$22,225,514.00

Expenditure
$6,137,771.00



Laboratory Subs 50.0%

Drill/Boring Subs 5.0%

ODCs 15.0%

Doc. Reproduction
Mail/Freight
Supplies
Rental Equipment
Travel

E/A&H Services 30.0%

Attachments (7)

E/A&H Total Costs To Date - By Zone

	$ Budgeted	Expended by 10/1/95	% RFI Complete
Pre-BRAC Costs	1,867,526	1,313,661	99%
Base Wide	2,615,925	450,873	16.5%
Zone A	1,000,385	54,443	20.4%
Zone B	611,503	33,672	18.1%
Zone C	1,581,445	580,094	69.3%
Zone E (CIA area)	7,650,932	341,078	17.7%
Zone D (WP only)	13,470		
Zone F (WP only)	28,253	12,415	21%
Zone G (WP only)	37,563		
Zone H	4,202,234	2,733,195	92.8%
Zone I	2,469,197	1,052,013	55.9%
Zone J (WP only)	73,741	81,326	100%
Zone K	Not Yet Budgeted	0	0.0%
Zone L (WP only)	73,741	85,002	85.6%

Supporting the Local Economy

E/A&H is committed to using local businesses. To date, E/A&H has invested $628,618.00 in local subcontractors and service organizations.

E/A&H's Top Five Subcontractors

- Atlantic Drilling - Drilling Services [237K]
- Alliance Drilling - Drilling Services [154K]
- General Engineering Labs - Sampling Services [72K]
- Wright/Padget Associates - Sampling Services [72K]
- Soil Consultants - Drilling and Geotechnical Testing [32K]

Local E/A&H Subcontractors

Subcontractor	$ Invoiced	$ Budgeted
3R	3,612.20	
Alliance	154,321.78	
Alpine	627.57	
Atlantic Drilling	0.00	236,844.21
Burris	206.38	
Butler	1300.00	
Caber	132.50	
Culligan	1885.04	
Depco	3062.62	
Duncan	37.10	
Fennell	1,835.57	
Fennvac	14,080.12	
Forsberg	6,875.90	
GEL	71,854.83	15,000.00
Hutto	1,531.70	
Metro	1,509.44	
Moore	1,250.00	
NatWeld	1,058.37	
Prime	1,156.64	
SafeCo	2,535.33	
Seigels	773.63	
Sharp	50.91	
Soilcons	31,850.00	
Sunbelt	3,046.19	
Wright/Padget	44,990.00	27,190.00

Total = 628,618.03

PROGRESS REPORT

RELEASE OF THE CHARLESTON NAVAL SHIPYARD AND CHARLESTON NAVAL BASE FROM RADIOLOGICAL CONTROLS

14 NOVEMBER 1995

OVERALL STATUS - The final release surveys for both the Shipyard and Naval Base for radioactivity associated with the Naval Nuclear Propulsion Program (NNPP RAM) and for general radioactivity (GRAM) are nearing completion. The shipyard has the manpower and funding to complete the radiological release of the Shipyard and Naval Base by 1 April 1996.

NNPP RAM & GRAM - As was explained in prior RAB briefings, there are two types of radioactive materials involved in our release surveys. NNPP RAM consists of radioactivity produced as a result of our maintenance work on nuclear submarines. The radioisotope of concern is Cobalt 60. GRAM is radioactivity associated with activities such as painting luminous dial instruments or use of some non-consumable welding rods. The two primary radioisotopes associated with GRAM surveys are Radium 226 and Thorium 232.

RELEASE PLANS - Survey and release plans have been prepared and approved by the Navy. In addition, the South Carolina Department of Health and Environmental Control (DHEC) and The United States Environmental Protection Agency (EPA) have reviewed our plans and agree with them.

Attachments (8)

WHAT WE HAD TO SURVEY

1. NNPP RAM
   5 fixed dry-docks & 1 floating dry-dock.
   17 piers
   2 radiological repair facilities
   Numerous permanent and portable buildings, and other facilities

2. GRAM
   Numerous permanent buildings
   Landfill
   DRMO (Defense Reutilization and Marketing Organization)

WHERE WE STAND - NNPP surveys are progressing well. 94% of production work is complete. We are preparing detailed reports on each area which is surveyed and released. To date we have completed 63% of the final reports. GRAM surveys are also progressing well with 75 % of the production work complete. 55% of the final GRAM reports have been completed.

RESULTS OF OUR SURVEYS - We have found about 20 sites where we detected very low levels of radioactivity. These were areas where we did significant work involving radioactive materials. With rare exceptions, the radioactivity levels found were so low that they could not be detected with sensitive field survey instruments, but could only be detected in solid material samples analyzed by ultra-sensitive laboratory instrumentation. We have already remediated most of the affected areas, and are working to remediate the few remaining ones.

DRMO - We will not complete the survey of the DRMO area prior to closure. This is because DRMO will not close until September 1996, some months after we close. We have conducted preliminary surveys of DRMO and found no abnormal levels. The final surveys of the DRMO area will be done by a successor organization under the technical direction of the Naval Sea Systems Command.

INDEPENDENT OVERCHECKS - Both DHEC and EPA have been at the base conducting overchecks to verify our results. Often this involves weekly visits due to the size and number of the areas requiring survey. In all cases to date, overchecks have confirmed shipyard results. Cooperation by DHEC/EPA in the overcheck surveys has been excellent, particularly in the area of "hot turnover" where facilities are quickly turned over for reuse. An example of such a turnover is the Dry-dock 5 complex.

Naval Base Charleston
RCRA Facility Investigation (RFI)
PROGRESS REPORT FOR NOVEMBER 1995

INVESTIGATIVE ZONES

A. Warehousing and scrap metal yard
B. Golf course and residential
C. Office space and warehouse (NH-45, Navbase HQ)
D. Parking lot, warehouses
E. Shipyard
F. Recreational areas and public works shops
G. Fuel farm and transfer facility
H. Southern end of the base excluding waterfront
I. Southern end of the base including waterfront and dredge material area
J. Ecological study area (waterbodies and certain areas on land)
K. Non-contiguous areas
L. Sewer systems and railroad system

FUNDING

- Funding status (Based on funds expected to receive in FY 96, available funds as a result of cost savings and alternative sampling methods)
  Fully funded: Zones A, B, C, E, H, I
  Funds available, not yet negotiated and awarded: J, L
  Funded for RFI Work Plans only: Zones D, F, G, K

- Remaining to fund for investigation (total requirement of $3.1 Million)
  Zones D, F, G, K implementation

PROGRESS FOR NOVEMBER

- Resolution of Technical Issues - Progress report by Todd Haverkost, Zone Task Order Manager for Zone H and Project Task Order Manager, E/A&H.

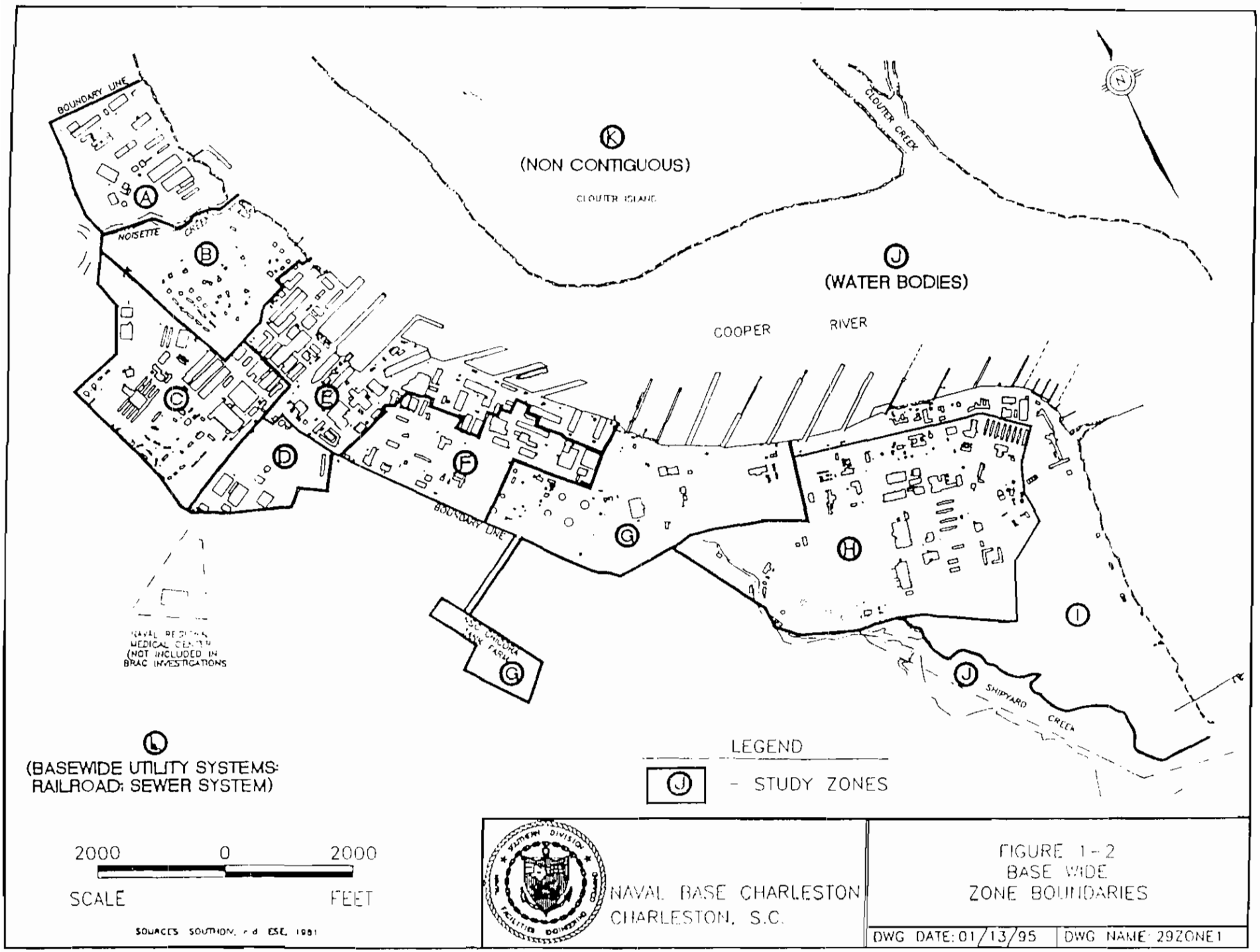
- Progress in Zones A and B- Todd Haverkost.

- Interim Measures utilizing Shipyard Detachment as a resource - Brian Stockmaster.

- Zones J and L work plan comments resolved and final document submitted.

PROJECTED ACTIVITY FOR DECEMBER

- Prepare and submit Zone H Final RFI report.
- Continue groundwater monitoring well installation and begin quarterly sampling in Zone E.
- Continue groundwater monitoring well installation and begin quarterly sampling in Zones A & B.


BOUNDARY LINE
NOISETTE CREEK
A
B
C
D
E
F
G
H
I
J
K
(NON CONTIGUOUS)
CLOUTER ISLAND
CLOUTER CREEK
(WATER BODIES)
COOPER RIVER
BOUNDARY LINE
NAVAL REGIONAL MEDICAL CENTER (NOT INCLUDED IN BRAC INVESTIGATIONS
SHIPYARD CREEK
L
(BASEWIDE UTILITY SYSTEMS: RAILROAD; SEWER SYSTEM)
LEGEND
J - STUDY ZONES
2000 0 2000
SCALE FEET
SOURCES SOUTHDIV, and ESE, 1981
NAVAL BASE CHARLESTON
CHARLESTON, S.C.
FIGURE 1-2
BASE WIDE
ZONE BOUNDARIES
DWG DATE: 01/13/95
DWG NAME: 29ZONE1

NAVAL BASE, CHARLESTON
Environmental Cleanup Program

This fact sheet is one of a series to inform interested citizens about the environmental investigations and cleanup actions at Naval Base, Charleston. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at the Naval Base (803) 743-3940.

TYPICAL SITE CLEANUP

Naval Base, Charleston is conducting environmental cleanup activities with the Environmental Protection Agency and the South Carolina Department of Health and Environmental Control. Because the base is closing, environmental cleanup must occur before property can be transferred to the community. In special cases, however, the Navy and the new tenant may reach an agreement to accommodate an earlier transfer of property. These early transfers have certain restrictions and will not be granted if a health risk is present.

Under the Resource Conservation and Recovery Act (RCRA), a facility must receive a permit and demonstrate that it can operate in an environmentally sound manner as well as show corrective action measures on sites that were not handled this way in the past. Naval Base, Charleston holds such a permit and is following the corrective action measures determined by that permit.

CORRECTIVE ACTION CLEANUP STEPS

1. Preliminary Assessment of Site [RCRA Facility Assessment - RFA]
2. Detailed Investigation of Site [RCRA Facility Investigation - RFI]
3. Evaluation of Best Cleanup Options [Corrective Measures Study - CMS]
4. Site Cleanup, or "Remediation" [Corrective Measures Implementation - CMI]

This fact sheet was developed to describe the major steps that are taken to clean up a typical site. A "site" can be defined as an area (which can vary in size from a few square feet to many acres) where hazardous material is stored, used, or disposed of. At Naval Base, Charleston, approximately four hundred (400) sites have been initially identified. Of these, 165 require no further action, however, the remaining sites must undergo at least part of the process described on the following pages.

We hope this information helps you understand the level of detail required for environmental cleanup. While there are many reports and reviews involved, they are all necessary to ensure that the final cleanup solution is the best one for each site. Our goal is to protect human health and the environment, and the Navy is committed to meeting that goal.

☎ If you have any questions about the environmental cleanup activities at Naval Base, Charleston, please call Lt. Donna Murphy at the Public Affairs Office at (803) 743-3940.

Site Discovery

- A site is identified through a preliminary study as potentially hazardous to human health or the environment. "Hazardous materials" may include chemicals, petroleum products or pesticides.
- The preliminary study consists of a complete visual and historical review of the base.
- Sites may be identified for many reasons including past use, storage, or disposal of hazardous materials.

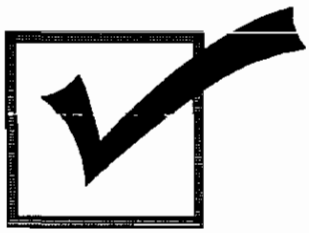
[❶ PRELIMINARY ASSESSMENT (RFA)]

Report

- Once a site is identified, a report describing the site's status must be written.
- The report includes background information on the site and any preliminary analysis of contamination that might be documented.
- The Navy must send the report to environmental agencies for review and comment.

[❶ PRELIMINARY ASSESSMENT (RFA)]

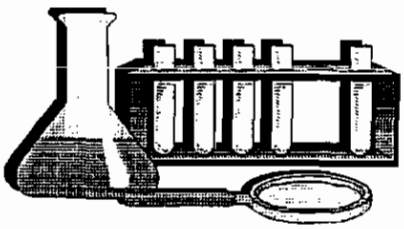
Workplan & Approval



- A workplan on how to technically evaluate the site must be written.
- The Navy must send the workplan to the U.S. Environmental Protection Agency and the South Carolina Department of Health and Environmental Control for approval. These agencies maintain oversight of the cleanup.
- Workplans are written at several stages in any environmental cleanup, and all must be approved by the environmental agencies.

[❷ DETAILED INVESTIGATION (RFI)]

Sampling



- Sampling can begin which may include water, air, soil, and sediment.
- The appropriate tests will be done to determine type of contamination.
- As a safety precaution, workers are required to wear protective clothing.

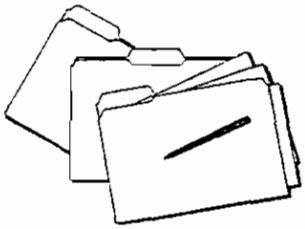
[❷ DETAILED INVESTIGATION (RFI)]

Analysis/Data Evaluation

- Water, air, soil, and sediment samples from the site will be sent to a laboratory for analysis. The lab will analyze the samples to see what contaminants are at the site, and at what levels.
- This information will be used to determine if the materials found were at safe levels, or if cleanup action is required.
- Other scientists review associated human and ecological risk factors.
- The Navy will prepare a report to summarize these findings.

[❷ DETAILED INVESTIGATION (RFI)]

Cleanup Choice Development



- Results from the analysis/data evaluation step provides the information needed to evaluate the options for cleaning up the site.
- Based on this information, the Navy will write a report recommending the best options for cleanup. This report is called the corrective measures study and is a general outline of the remedies that can be used effectively at the site.
- This report is sent to the environmental agencies for their approval.

[❸ EVALUATION OF CLEANUP OPTIONS (CMS)]

Remedy Selection

- Both environmental agencies review the corrective measures plan independently. Together, the Navy and the environmental agencies decide on the best option for cleaning up the site.
- Selection of the remedy is based on many criteria, including overall effectiveness, feasibility, public input, and cost.
- After public comment, the final decision will be made by the environmental agencies.

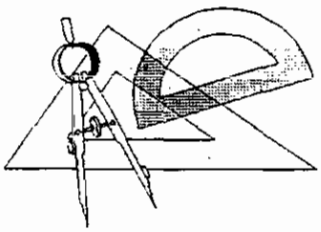
[❸ EVALUATION OF CLEANUP OPTIONS (CMS)]

Public Comment

- **Wide public participation at this stage is strongly encouraged.**
- The cleanup options and the preferred option are announced to the public as well as the Restoration Advisory Board.
- A public meeting will be held to discuss the alternatives.
- Changes may be made to the proposed plan after the public's written and oral comments have been carefully considered. (*See the next page for more information on public involvement/participation.)

[❸ EVALUATION OF CLEANUP OPTIONS (CMS)]

Design of Remedy



- Once the cleanup option is approved, the Navy will design the cleanup.
- The design stage requires writing a workplan. The workplan will include how the chosen remedy will work at the site, how to construct and operate the remedy, and a health and safety plan for site workers.

[❹ SITE CLEANUP OR "REMEDIATION" (CMI)]

Cleanup

- Once the workplan is approved, the selected remedy will begin.
- This is called "remediation," and may involve removal, treatment, or containment.
- The remedy will be monitored until cleanup is complete.

[❹ SITE CLEANUP OR "REMEDIATION" (CMI)]

Public Involvement: Keeping the public informed of the environmental progress at the Base is an important aspect of the cleanup process, and the Navy encourages public participation throughout the decision making process. One way this is being done is through the Restoration Advisory Board, or RAB. The RAB is a group of citizens, Navy, city, state, and Environmental Protection Agency personnel that meet monthly to discuss progress on the environmental cleanup of the Base. These meetings are open to the public and attendance is strongly encouraged.

Another way to keep the public informed is by providing access to pertinent information regarding cleanup decisions. This has been done at Charleston through the establishment of *information repositories*, which are collections of documents that include work plans, reports, and the Community Relations Plan for Naval Base, Charleston. Repositories can be found at two locations in the North Charleston area; Dorchester Regional Library at 6325 Dorchester Rd., and at the Industrial Relations Office in building 76 at the Naval Base. These documents have been made public as part of the Navy's program to involve and inform the Trident community.

Lt. Donna Murphy
Public Affairs Office
Naval Base, Charleston
1690 Turnbull Avenue, Code N4
Charleston, SC 29408-1955

Naval Base, Charleston also maintains a mailing list of individuals and organizations that receive updates on the cleanup. If you would like to be on the mailing list, would like more information about the Restoration Advisory Board, or if you have any questions about the cleanup, please contact the Naval Base, Charleston Public Affairs Office.

Public Affairs Office
Naval Base, Charleston
1690 Turnbull Ave. Code N4
Charleston, SC 29408-1955

Official Business

Place Label Here