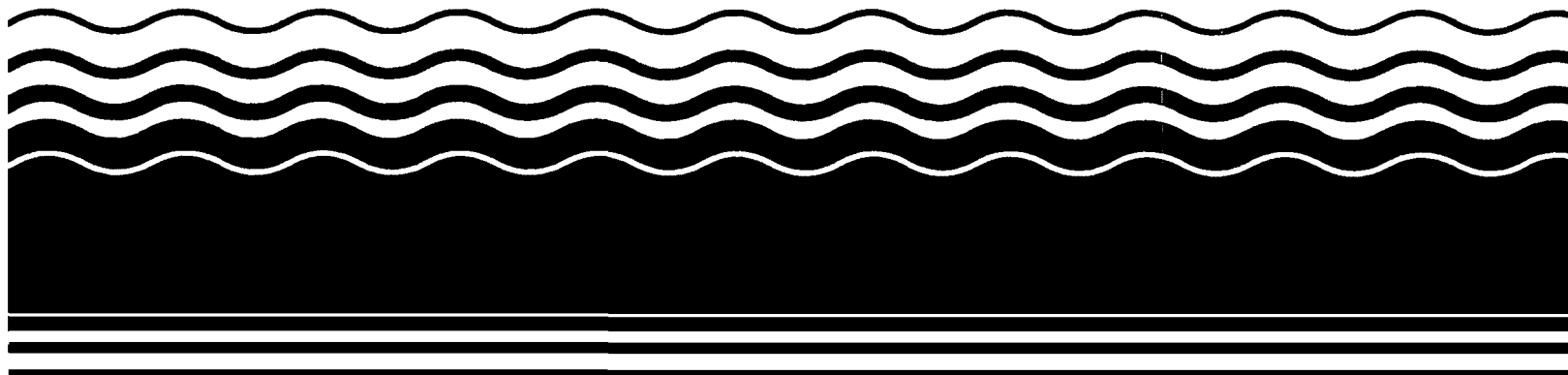


PB95-963141  
EPA/AMD/R04-95/231  
August 1995

# **EPA Superfund Record of Decision Amendment:**

**62nd Street Dump  
Tampa, Hillsborough County, FL  
6/29/95**



## Record of Decision Amendment

### Declaration

#### SITE NAME AND LOCATION

62nd Street Site  
Tampa, Hillsborough County, Florida

#### STATEMENT OF BASIS AND PURPOSE

This decision document presents the amendment to the selected remedial action for the 62nd Street Site, in Tampa, Hillsborough County, Florida, which was chosen in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record file for this site.

The Florida Department of Environmental Protection (FDEP), the support agency, has provided input throughout the remedy amendment process. Based on FDEP's comments, EPA expects that concurrence on this fundamental change will be forthcoming; although, a formal concurrence letter has not been received.

#### ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

#### DESCRIPTION OF THE FUNDAMENTAL CHANGE TO THE SELECTED REMEDY

The purpose of this document is to amend the selected remedy at the Site. The original Record of Decision (ROD) was signed on June 27, 1990, and previously modified by the Explanation of Significant Differences (ESD) which became effective on October 7, 1991.

At this point, EPA has determined that the ROD must be fundamentally changed to reflect the current conditions at the Site. Historically, a plume of contaminated groundwater existed off-site in the direction of groundwater flow (south to east with respect to the site). During the Remedial Design, on-site and off-site groundwater samples were collected and analyzed for site-related contaminants (Cadmium, Chromium, and Lead). The results showed that the off-site groundwater was below cleanup

levels documented in the 1990 ROD. An Off-site Groundwater Monitoring Program was then initiated to study this change in groundwater quality. After collecting quarterly samples for 24 months, the off-site groundwater has been documented to be consistently below the cleanup criteria for groundwater. The on-site groundwater was sent to a local Publicly Owned Treatment Works (POTW). The source of the contamination (soil/waste) has been Solidified/ Stabilized, and a slurry wall/cut-off trench has been installed around the perimeter of the Site. Based on the facts concerning the groundwater quality of the Site, EPA modifies the selected remedy to eliminate the Surficial Aquifer Groundwater Extraction and Treatment component of the remedy.

#### STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable and satisfies the statutory preference for remedies that employ treatment which reduces toxicity, mobility, or volume as a principal element.

Because this remedy will result in hazardous substances remaining onsite, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

6/29/95  
DATE

Joe R. Fournier  
Richard D. Green for  
Associate Director  
Office of Superfund and  
Emergency Response

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**U.S. ENVIRONMENTAL PROTECTION AGENCY  
RECORD OF DECISION AMENDMENT  
62nd Street Dump Superfund Site  
Tampa, Hillsborough County, Florida**

**1.0 INTRODUCTION**

The purpose of this document is to amend the selected remedy for the 62nd Street Superfund Site. The Record of Decision (ROD) was signed on June 27, 1990, and previously modified by the Explanation of Significant Differences (ESD) which became effective on October 7, 1991. Based upon the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 117 and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) Section 300.435(c)(2)(ii), EPA has determined that the ROD must be fundamentally changed to reflect the current conditions at the Site. Historically, a plume of contaminated groundwater existed off-site in the direction of groundwater flow (south to east with respect to the site). During the Remedial Design, on-site and off-site groundwater samples were collected and analyzed for site-related contaminants (cadmium, chromium, and lead). The results showed that the off-site groundwater was below the cleanup goals presented in the 1990 ROD. A Off-site Groundwater Monitoring Program was then initiated to study this change in groundwater quality. After collecting quarterly samples for 24 months, the off-site groundwater has been documented to be consistently below the cleanup criteria for groundwater. The On-site Groundwater was sent to a local Publicly Owned Treatment Works (POTW). The source of contamination (soil and waste) has been Solidified/Stabilized, and a slurry wall/cut-off trench has been installed around the site. Based on the facts concerning the groundwater quality of the Site, EPA modifies the selected remedy to eliminate the Surficial Aquifer Groundwater Extraction and Treatment component of the remedy.

**1.1 Site Location and Description**

The 62nd Street Dump Site is located in Tampa, Hillsborough County, Florida, north of Columbus Drive and just west of 62nd Street (Figure 1). The site is a five and one-half acre private landfill formerly used for the disposal of industrial waste. The Site is located in an area with mixed residential and light industrial land use. The Site is bounded on the west by a series of small shallowponds formed for fish breeding. To the east and south of the Site are residential areas interspersed with light commercial and industrial operations. To the north of the Site is undeveloped land. The current landowner operates an automobile scrap yard on the southern portion of the Site. A site map is presented as Figure 1.

## **1.2 Site History and Enforcement Activities**

The 62nd Street Dump Site was operated for approximately three years in the mid-1970s as a borrow pit; that is, sand was excavated and sold. When the owner of the Site ceased operation of the borrow pit, he allowed several companies in Tampa to use the remaining pit as a disposal area for various waste materials, including shredded automobile parts, batteries, waste cement, kiln dust, and kiln liners. The owner ceased dumping in 1976, but unauthorized dumping of household garbage and construction debris continued after this date.

In 1976, the potential for environmental problems at the Site was recognized when fish kills occurred in fish breeding ponds on the adjacent property belonging to Peninsular Fisheries. On November 30, 1976, the Hillsborough County Environmental Protection commission (EPC) issued a notice to cease all disposal activities at the Site. The first major investigation at the Site was conducted in June 1979 by Fish Doctors Laboratory, Inc. (FDL) under contract with Peninsular Fisheries, Inc.

Environmental sampling was conducted periodically by the Hillsborough County EPC and by FDER. The areas sampled included private wells, fish breeding ponds, a shallow sand point well installed by FDER, and various areas surrounding the Site. An analysis of the sample from the shallow sand point well showed groundwater contamination exceeding the FDER Chapter 17-3 standard for chromium. However, 1982 FDER analyses of water samples from wells upgradient and downgradient of the site did not show any metals concentrations above background levels.

A Remedial Action Master Plan (RAMP) was prepared for the 62nd Street Site by NUS Corporation under contract to EPA in June 1983. As part of RAMP development, a preliminary risk assessment was performed, and approaches to both short- and long-term remedial actions were developed. The RAMP indicated that there was no immediate concern over drinking water contamination; however, groundwater monitoring should be continued and a feasibility study should be conducted to evaluate long-term remediation.

In March 1984, the FDER and the EPA entered into a Cooperative Agreement to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the site. The RI was conducted in 1986 by a team of several consulting firms consisting of Mayes, Sudderth & Etheredge, Inc., Fred C. Hart Associates, Inc., Universal Engineering Testing Company, Inc., and Compuchem Laboratories, Inc. The field activities were conducted in two phases. Phase I was conducted in February 1986, and consisted of construction and sampling of 12 test pits across the site. Phase II was conducted in July and August 1986 and involved installing and sampling 14 groundwater monitoring wells, sampling 10 domestic wells, sampling surface

water and sediment from the fish ponds, and sampling on-site surface soils.

Camp, Dresser, & McKee, Inc. (CDM) was contracted by FDER in August 1988 to conduct a Feasibility Study (FS) for the Site. The FS developed and analyzed potential alternatives for remediation at the Site. The FS also supplemented the RI by conducting additional field activities to characterize the nature and extent of soil, sediment, surface water, and groundwater contamination at the site. In July 1989, additional domestic well sampling was performed by the Florida Department of Health and Rehabilitative Services (HRS).

It was determined that waste buried at the Site fall into two categories: auto part/battery (non-cement) wastes and cement waste. The disposal of the non-cement waste at the Site has resulted in the release of hazardous substances including antimony, arsenic, cadmium, chromium, copper, lead, and polychlorinated biphenyls (PCBs) in the soil. The surficial aquifer both on-site and off-site is also contaminated with cadmium, chromium, and lead above health-based levels. The cement wastes represent little threat through either direct contact or leaching to groundwater.

Based upon consideration of the requirements of CERCLA, the detailed analysis of the alternatives, and public comments, EPA has determined that the alternative which includes solidification/stabilization of the non-cement waste, capping of the soil, and groundwater extraction is the most effective and efficient remedy for the 62nd Street site in Tampa, Florida. The function of this remedy is to reduce the risks associated with exposure to contaminated groundwater in the surficial aquifer and contaminated soil.

The major components of the selected remedy include:

- Solidification/Stabilization of the battery wastes, shredded auto parts, and contaminated soils (approximately 48,000 cubic yards). Contaminants of concern associated with the battery wastes and shredded auto parts are antimony, arsenic, cadmium, chromium, copper, lead, and polychlorinated biphenyls (PCBS).
- No treatment of the on-site cement wastes since they present little threat through either direct contact or leaching to groundwater.
- Capping of the entire site (approximately 5.5 acres) with a two-foot vegetative soil cover underlain by an impermeable membrane.
- Extraction and treatment of the groundwater from the surficial aquifer both on-site and off-site. Contaminants of concern in the surficial aquifer are lead and chromium.

- Institutional controls or other land use restrictions to ensure the integrity of the cap and the treated soils. The presence of groundwater contamination at the site indicates that leaching of contaminants from waste has occurred.

The duration of the soil treatment and groundwater cleanup was estimated to take three to four years although groundwater cleanup may take longer. Following completion of the cleanup, monitoring will be conducted for a minimum of five years to demonstrate that the cleanup has met the remediation goals. The total present worth cost of this alternative was estimated to be \$16,460,000.

Further clarification of the selected remedy was presented in the Explanation of Significant Differences (ESD) which became effective on October 7, 1991. The significant differences between the remedy described in the ROD and in this ESD are as follows:

1. The cleanup criteria for lead in the subsurface soils will be 224 mg/kg replacing both 17.4 mg/kg for non-cement waste and 170 mg/kg for cement waste.
2. Certain construction-type debris located within the 62nd Street Site may be separated from materials which are required to be stabilized/solidified and may then be disposed off-site and/or recycled.

The ROD Amendment is being issued by the U.S. Environmental Protection Agency (EPA), the lead agency, with assistance from the Florida Department of Environmental Protection (FDEP, also known as FDER), the support agency.

This document will become part of the Administrative Record File as required by the NCP §300.825(a)(2). The Administrative Record File is available for public review at the locations listed below:

Tampa/Hillsborough County  
Public Library/Special Collections  
900 North Ashley  
Tampa, Florida 33602  
(813) 223-8945

EPA Region IV Office  
EPA Records Center  
345 Courtland Street, NE  
Atlanta, Georgia 30365  
(404) 347-0506



### 1.3 Explanation of Fundamental Remedy Change

Prior to performance of the remedial design activities in 1991, the Potentially Responsible Parties (PRPs) sampled all existing off-site monitor wells installed within the surficial aquifer with the exception of MW-14 which was not accessible at the time and MW-21 which is located more than 700 feet upgradient of the 62nd Street Superfund Site. To ensure that the groundwater samples collected for analysis were representative of the groundwater at the site, each monitor well was thoroughly developed to remove fine sediments from the filter media surrounding the well screen and from within the well casing. Additionally, the groundwater sampling protocols included collecting both unfiltered and filtered samples for analysis of dissolved metal constituents. Results of the groundwater sampling and analysis program were presented to the EPA in an Ardaman & Associates report titled "Pre-Design Activities, 62nd Street Superfund Site, Tampa, Hillsborough County, Florida", dated February 7, 1992. The measured concentrations of cadmium, chromium and lead in all the off-site monitor wells were below the corresponding clean-up levels established in the ROD.

After carefully considering this new information, EPA requested that six additional monitor wells be installed along the perimeter of the 62nd Street Superfund Site. The purpose of installing the new wells was to collect additional groundwater quality data to determine if the on-site contaminated groundwater had migrated off the property. In April 1992, six monitor wells (designated MW-22 through MW-27) were installed at the locations shown in Figure 1. As shown in the figure, three wells were installed on the east side, two wells on the south side and one well on the west side of the property. Installation of each monitor well was observed by the EPA Oversight Contractor to substantiate that the well construction met the EPA requirements. Following well development and purging, unfiltered and filtered groundwater samples were collected from the six monitor wells for determination of the concentrations of cadmium, chromium and lead. The concentration of chromium in the unfiltered sample obtained from MW-23 was 51 micrograms per liter ( $\mu\text{g/l}$ ), which slightly exceeded the 50  $\mu\text{g/l}$  clean-up level for chromium. In all the filtered samples, the concentrations of cadmium, chromium and lead were below the respective clean-up levels.

To confirm the groundwater quality data reported by Ardaman & Associates, Inc., representatives of the EPA Environmental Services Division (EPA-ESD) collected unfiltered groundwater samples from MW-2, MW-23, MW-25 and MW-26, and analyzed each sample for 31 parameters in the target list, which included cadmium, chromium and lead. The EPA groundwater samples were sent to the EPA-ESD laboratory in Athens, Georgia for analysis. During the EPA sampling program, the PRPs also collected unfiltered groundwater samples from the same monitor wells. The PRPs samples were sent to the Contract Laboratory (Thornton Laboratories, Inc. of Tampa,

Florida). EPA test results for the samples collected at MW-23, MW-25 and MW-26 did not indicate any lead, cadmium or chromium concentration above the detection limits for these constituents. Chromium was detected in the sample collected by Ardaman & Associates, Inc. from MW-26, but the concentration was below the 50  $\mu\text{g/l}$  clean-up level. Cadmium and lead were not detected in the samples obtained by Ardaman & Associates, Inc. from MW-23, MW-25 and MW-26.

Because of the differences in the measured concentrations of cadmium, chromium and lead in the groundwater samples obtained during the FS and subsequently by the EPA and PRPs, the EPA agreed to implementation of a quarterly groundwater monitoring program at selected off-site wells installed within the surficial aquifer. The groundwater quality issues and the groundwater monitoring program was discussed in a meeting at the EPA office on July 24, 1992 in Atlanta, Georgia. The meeting was attended by the representatives of the PRPs and the EPA.

Prior to implementing the off-site groundwater monitoring program, the EPA requested a letter from the PRPs describing the details of the groundwater monitoring program and how it was to be implemented. On behalf of the PRPs, Ardaman & Associates, Inc. prepared the proposed off-site groundwater monitoring program and forwarded it to the EPA on July 31, 1992. In a letter dated August 22, 1992, the EPA approved the proposed off-site groundwater monitoring program.

The ROD Amendment was prepared to document the field and laboratory test results associated with the off-site groundwater monitoring program for the 62nd Street Superfund Site at Tampa, Florida. As stated in the EPA-approved Remedial Design (RD) for this site, the objective of the off-site groundwater monitoring program was to monitor the concentrations of cadmium, chromium and lead within the surficial aquifer in the vicinity of and downgradient from the site, and to evaluate if extraction and treatment of off-site groundwater would be necessary. The groundwater sampling operation at the off-site monitor wells began in August 1992 and continued on a quarterly basis through September 1994. A summary of the results of the field and laboratory tests on groundwater samples obtained from the off-site monitor wells, and an evaluation of the data is found in the attached tables and graphs.

## **2.0 Enforcement Analysis**

EPA and the PRPs signed a Consent Decree (CD) for the Remedial Action and Remedial Design at the site. The CD was entered by the U.S. District Court on January 27, 1992. Under the CD, the PRPs agreed to complete the Remedial Design/Remedial Action and to pay past cost for the Remedial Investigation/Feasibility Study. The PRPs have designed the Groundwater Extraction System as required by the 1990 ROD. However, EPA allowed the PRPs to study the off-site

groundwater to determine if the groundwater quality has improved. Concurrent with the off-site groundwater program, the PRPs began to implement the source component of the selected remedy. At this point, the Solidification/Stabilization component of the remedy has been completed. Also, a slurry wall has been keyed into the confining layer.

### 3.0 Community Relations

EPA prepared a ROD on June 27, 1990, taking into consideration the comments from the public and the results from the Feasibility Study. The most environmentally sound and cost effective remedy was selected as a part of the ROD phase of the Superfund process. At this time, the selected remedy included Solidification/Stabilization, institutional controls/deed restrictions, and a groundwater extraction system.

In September 1991, a public meeting was held to present the Explanation of Significant Differences (ESD). The ESD modified the cleanup goals for soil and clarified the handling of construction debris.

In March 1993, EPA held a meeting to announce the completion of the Remedial Design and to present the construction schedule for the Remedial Action for the Site.

The Record of Decision (1990) contains a Responsiveness Summary that lists all public comments and EPA/FDEP comments. No comments were received on the Explanation of Significant Differences (ESD).

### 4.0 CURRENT SITE STATUS

#### 4.1 On-site Soils

As stated previously, the Remedial Action is in progress. The contaminated soil and non-cement waste have been solidified in cement. The entire site was divided into grid locations and analyzed for cadmium, chromium, and lead. Any soil found in a grid location above the cleanup goals was treated in the solidification process. Non-cement waste was also sampled and treated. The treated material has met Remedial Design Performance Standards: Hydraulic Permeability ( $10^{-6}$  cm/sec), Toxicity Characteristic Leaching Procedure (Lead), and Compressive Strength (50 psi).

Detailed results will be made available in the Remedial Action Report.

## 4.2 Hydrogeology

### Slurry Wall/Cut-off Trench

A slurry wall was constructed around the perimeter of the Site. The purpose of the slurry wall is to create a hydrogeologic barrier. The design criteria for the slurry wall is a hydraulic permeability of  $10^{-7}$ , four orders of magnitude greater than the surrounding soils (averaging approximately  $10^{-3}$ ).

### On-site Groundwater

During the Solidification/Stabilization Phase of the Remedial Action, the on-site groundwater was utilized in the solidification process to mix cement and soil. Also, excess on-site groundwater was sent to the local Publicly Owned Treatment Works (Hooker's Point).

### Off-site Groundwater

Historically, the off-site groundwater quality has been measured above the cleanup standards: Cadmium  $10\text{ }\mu\text{g/L}$ , Chromium  $50\text{ }\mu\text{g/L}$ , and Lead  $15\text{ }\mu\text{g/L}$ . New information obtained during the Pre-Design Phase of the cleanup indicates that the off-site groundwater quality has improved to the point that it is below cleanup goal. In light of this new information, the off-site groundwater sampling program began in August 1992 and continued on a quarterly basis through August 1994. The objective of the groundwater monitoring program was to acquire additional groundwater quality data for an extended period of time to assess if any off-site groundwater contamination exists within the surficial aquifer in the vicinity of the 62nd Street Superfund Site.

The water table gradients measured during the RI/FS and subsequently by the PRPs and the EPA indicated that any downgradient plume migration in the surficial aquifer would be in the south/southeast direction. The off-site monitor wells selected for the monitoring program were the ones that were installed in the surficial aquifer and had the highest probability of being impacted by any plume migration from the site. On this basis, MW-12S, MW-13S, and MW-17 were selected for the off-site groundwater monitoring program. Additionally, MW-22, MW-23, MW-24, MW-25 and MW-26 at the east and south property lines were included in the program to assess the groundwater quality at the edge of the property. The locations of these monitor wells are shown in Figure

1.

After the off-site groundwater monitoring program began, the EPA requested that the PRPs install an additional monitor well at the west property line. Subsequently, MW-28 (see Figure 1) was installed on January 27, 1993. Groundwater at MW-28 was sampled three times during the program before the well was abandoned on September 10, 1993 because of its close proximity to the proposed slurry wall alignment.

All surficial aquifer monitor wells installed during the FS and the new monitor wells installed by Ardaman & Associates, Inc. were developed prior to sampling to ensure recovery of representative groundwater samples. A compressed air development system was used to develop the wells. An oil-free portable compressor and a diesel fueled compressor with organic filters fitted to the air discharge hose were used to supply air for the well development system. Air flow into the well was adjusted to pressures low enough to protect the well screen and sand filter surrounding the well screen. An automatic timer controlled the frequency and duration of air surges into the water column. Air directed into the standing water column forced the water to rise to the surface and discharge into five-gallon buckets where the groundwater could be inspected. The groundwater exhibited brown or gray discoloration during the initial stage of well development. As development continued, the water became increasingly clearer and pH and conductivity readings became more stable. Well development was continued until the groundwater exhibited characteristics of reduced turbidity and stabilization of the pH and conductivity. After development was complete, the well was secured with a locking cap or cover and the well remained undisturbed until sampling.

Because the monitor wells were developed in advance of sampling, purging was necessary prior to sampling to remove standing water from within the well casings and to ensure recovery of representative groundwater samples. Purging was accomplished at each monitor well location using a low volume peristaltic pump and new pre-cleaned lengths of tubing. Purging continued until at least three casing volumes of water were removed and three consecutive measurements of temperature, specific conductance, and pH readings were within  $\pm 5\%$  of each other and the estimate of turbidity was less than 5 N.T.U. If the field parameters remained greater than  $\pm 5\%$  after five well casing volumes of water were removed, sampling could begin. Equipment cleaning and sample custody procedures followed the approved QA/QC protocols and were observed by the EPA Oversight Contractor during each sampling event.

#### Off-site Groundwater Sampling Schedule, Methods and Parameters

The quarterly sampling dates for 1992, 1993 and 1994 are presented in Table 1. Unfiltered and filtered groundwater samples were

collected throughout the program at each monitor well location. To obtain filtered samples, the groundwater was filtered through a 0.45 micron in-line filter before discharging into the sample container.

Initially, the major groundwater monitoring parameters consisted of cadmium, chromium and lead. However, following the first quarter of sampling in August 1992, the EPA requested the PRPs to add sodium and sulfate to the list of major monitoring parameters. Accordingly, for the remainder of the off-site monitoring program, the major monitoring parameters consisted of cadmium, chromium, lead, sodium and sulfate. The parameters for field measurement consisted of pH, specific conductance and temperature of the groundwater samples. Although turbidity was recorded during several quarterly sampling events, it was not routinely monitored for each sampling operation.

#### Off-site Groundwater Quality Data

Results of the quarterly off-site groundwater monitoring program are presented in Table 2. As shown, the field measurements included determinations of pH, conductivity, temperature, and turbidity. Laboratory chemical analyses included determinations of the concentrations of cadmium, chromium, lead, sodium and sulphate.

As shown in Table 2, the measured cadmium concentration in both filtered and unfiltered groundwater samples ranged from less than 0.1 to 1.9  $\mu\text{g/l}$ . The cadmium concentrations in filtered samples were generally lower than those in the corresponding unfiltered samples. Also, the cadmium concentration in most of the groundwater samples was less than or equal to 0.1  $\mu\text{g/l}$ . Based on the results presented in Table 2, the measured cadmium concentration in both filtered and unfiltered groundwater samples obtained from all the monitor well locations were well below the clean-up level of 10  $\mu\text{g/l}$ .

Measured chromium concentration in unfiltered groundwater samples ranged from less than 1 to 23  $\mu\text{g/l}$  and that in filtered groundwater samples ranged from less than 1 to 15  $\mu\text{g/l}$ . The chromium concentrations in filtered samples were generally lower than those in the corresponding unfiltered samples. Based on the results presented in Table 2, the measured chromium concentration in both filtered and unfiltered samples obtained from all the monitor well locations were well below the clean-up level of 50  $\mu\text{g/l}$ .

Measured concentration of lead in unfiltered groundwater samples ranged from less than 1 to 24  $\mu\text{g/l}$  and that in filtered groundwater samples ranged from less than 1 to 17  $\mu\text{g/l}$ . The measured lead concentration in the unfiltered sample obtained from MW-12S on January 26, 1993 was 24  $\mu\text{g/l}$  which is above the clean-up level of

15  $\mu\text{g/l}$ . The lead concentration in the corresponding filtered sample was 6  $\mu\text{g/l}$ , which is below the clean-up level. In addition, the lead concentration in a duplicate sample of MW-12S (i.e., MW-12D) was below the clean-up level for both filtered and unfiltered samples. The measured lead concentrations in the unfiltered and filtered samples obtained from MW-22 on January 26, 1993 were 18  $\mu\text{g/l}$  and 17  $\mu\text{g/l}$ , respectively, which are just slightly above the clean-up level. The measured lead concentrations in the unfiltered sample obtained from MW-24 on January 26, 1993 was 16  $\mu\text{g/l}$ , which is just slightly above the clean-up level whereas the corresponding filtered sample had a lead concentration of 6  $\mu\text{g/l}$  which is below the clean-up level. To determine the reasons for the inconsistency in lead concentration data, spot samples were collected at MW-12S and MW-22 on March 22, 1993. Lead concentrations in both unfiltered and filtered spot samples were less than 5  $\mu\text{g/l}$ , which is well below the clean-up level. Based on the lead concentration in the duplicate sample and the spot samples, the measured elevated lead concentrations in the samples obtained from MW-12S, MW-22, and MW-24 on January 26, 1993 may be attributed to possible laboratory error. For all other tested samples, the measured lead concentrations were below the clean-up level of 15  $\mu\text{g/l}$ .

The pH, specific conductance, and temperature of the groundwater samples were routinely determined at each monitor well location in accordance with the protocols of the approved quality assurance plan for remedial activities at the 62nd Street Superfund Site. These field parameters are used as indicators to ensure that the collected samples are representative of the groundwater in the aquifer being monitored. Although turbidity was not included in the sampling protocol of the approved quality assurance plan, it was measured on some sampling dates during the off-site monitoring program. Results of the field determinations of pH, specific conductance, temperature, and turbidity are presented in Table 2.

### Summary of Findings

Results of the off-site groundwater monitoring program indicate that the measured cadmium and chromium concentration in both filtered and unfiltered groundwater samples obtained from all the monitor well locations during the monitoring period were well below the respective clean-up levels.

Lead concentrations above the clean-up level of 15  $\mu\text{g/l}$  were documented in the groundwater samples obtained from MW-12S, MW-22, and MW-24 on January 26, 1993. However, based on the analysis of a duplicate sample (MW-12D) and the spot samples obtained from MW-12S and MW-22 on March 22, 1993, it appears that all measurements after this date are consistently below the cleanup standard. For MW-24, the lead concentration in the unfiltered sample obtained on January 26, 1993 was 16  $\mu\text{g/l}$ , which is slightly above the clean-up level of 15  $\mu\text{g/l}$ , whereas the dissolved lead concentration in the corresponding filtered sample was 6  $\mu\text{g/l}$ , which is well below the

clean-up level. For all other filtered and unfiltered samples, the measured lead concentrations were below the clean-up level of 15  $\mu\text{g/l}$ .

The findings of the quarterly off-site groundwater monitoring program confirm that the concentrations of cadmium, chromium and lead in the groundwater at the monitor wells located hydraulically downgradient of the 62nd Street Superfund Site are below the established clean-up levels for these constituents. The remaining on-site surficial groundwater was sent to a local POTW. Based on these findings, EPA has decided that to eliminate the ROD component that requires an extraction and treatment groundwater system in the vicinity of the 62nd Street Superfund Site.

## 5.0 SUMMARY OF ON-SITE RISKS

At the time that the ROD was signed in June 1990, the public health threat for groundwater was through consumption of the surficial aquifer groundwater. The Applicable Relevant and Appropriate Requirements (Maximum Contaminant Limits - MCLs) were applied, and the cleanup goals were established in the ROD. There are three Cleanup Goals for Groundwater which are as follows: Cadmium 10  $\mu\text{g/L}$ , Chromium 50  $\mu\text{g/L}$ , and Lead 15  $\mu\text{g/L}$ . Current conditions indicate that the off-site groundwater quality is below the 1990 ROD cleanup goals. Therefore, the purpose of this document is to eliminate the Groundwater Extraction component of the selected remedy since the groundwater quality is below the 1990 ROD cleanup goals.

## 6.0 Comparative Analysis - Nine Evaluation Criteria

This analysis will compare the original selected remedy alternative with the ROD Amendment Alternative of eliminating the Groundwater Treatment System utilizing the nine evaluation criteria detailed in the National Contingency Plan (NCP):

Overall Protection of Human Health and the Environment - Historically, the site has posed a threat to human health and the environment. Considering current conditions, the ROD Amendment alternative is within the Agency's guidelines since the groundwater is below cleanup goals.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) - The ROD Amendment alternative meets cleanup goals and respective ARARs. No waiver from ARARs would be necessary.

Long Term Effectiveness and Performance - Groundwater has been monitored for an extended period of time and has exhibited levels below cleanup standards.

Reduction of Toxicity, Mobility, and Volume - From the time of the writing of the original ROD to the time of writing of this ROD



Amendment, the toxicity, mobility, and volume has been reduced in groundwater to the point that it is below cleanup goals. The plume of contamination in the ROD has retracted.

Short-Term Effectiveness - At this time, groundwater cleanup goals are being met. With the source solidified and stabilized, the threat to groundwater has been reduced.

Implementability - The Groundwater Extraction System was designed. However, considering the current groundwater quality, the system is not necessary.

Cost - Cost would be reduced by eliminating the Groundwater Extraction System. This action would decrease the cost of the remedy by approximately \$7 million.

State Acceptance - The State of Florida concurs with the elimination of the Groundwater Extraction component of the ROD.

Community Acceptance - The community is very active and representatives in the community communicate frequently with the EPA. Given the new information, the community will be informed of the reduced threat and will continue to participate in the Superfund process.

## 7.0 SELECTED REMEDY

Based upon consideration of the requirements of CERCLA, the new information presented, periodic study, and public comments, EPA has determined that the Groundwater Extraction System should be eliminated since the cleanup goal are consistently being met. All other aspects of the selected remedy remain the same.

Therefore, the major components of the selected remedy include:

- Solidification/Stabilization of the battery wastes, shredded auto parts, and contaminated soils (approximately 48,000 cubic yards). Contaminants of concern associated with the battery wastes and shredded auto parts are antimony, arsenic, cadmium, chromium, copper, lead, and polychlorinated biphenyls (PCBS).
- No treatment of the on-site cement wastes since they present little threat through either direct contact or leaching to groundwater.
- Capping of the entire site (approximately 5.5 acres) with a two-foot vegetative soil cover underlain by an impermeable membrane.
- Institutional controls or other land use restrictions to ensure the integrity of the cap and the treated soils. The presence of groundwater contamination at the site indicates that leaching of contaminants from waste has occurred.

## 8.0 STATUTORY DETERMINATION

Considering the new information that has been developed and the groundwater quality at the site, EPA and FDEP believe that the remedy remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action, and is cost effective. In addition, the remedy continues to utilize permanent solutions and resource recovery technologies to the maximum extent practicable for this site and satisfies CERCLA § 121.

### **8.1 Protection of Human Health and the Environment**

The selected remedy is considered to be protective by meeting the Groundwater Cleanup Goals.

### **8.2 Attainment of Applicable or Relevant and Appropriate Requirements (ARARs)**

Remedial Actions performed under CERCLA must comply with all Applicable or Relevant and Appropriate Requirements (ARARs). The selected remedy is found to meet or exceed the following ARARs.

#### **FEDERAL REQUIREMENTS:**

#### **Clean Water Act/Safe Drinking Water Act**

EPA's determination of appropriate groundwater cleanup criteria involves an evaluation of contaminant concentrations relative to the available health-based standards. Maximum Concentration Limits (MCLs) and Maximum Concentration Limit Goals (MCLGs) of the Safe Drinking Water Act (SDWA) (40 C.F.R. Part 141 and 142), and Federal Ambient Water Quality Criteria (AWQC) of the Clean Water Act (CWA) (40 C.F.R. Part 122.44) will be met at this site.

#### **Clean Air Act**

The objective of the Clean Air Act (CAA) is to protect and enhance the quality of the nation's air resources in order to promote and maintain public health and welfare and the productive capacity of the population. The CAA achieves this objective by regulating emissions into the air. Pursuant to the CAA, EPA has promulgated National Ambient Air Quality Standards. The CAA is an ARAR and the regulatory standard and the regulatory standards of the of the CAA will be complied with during the implementation of the remedy.

#### **Toxic Substance Control Act (TSCA)**

40 CFR Part 761, promulgated pursuant to TSCA, establishes criteria to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs. The 62nd Street Dump Site is classified as a non-restricted access area. The requirement for decontaminating PCB spills in a non-restricted access area is to decontaminate the soil to 10 mg/kg PCBs by weight, provided the soils are excavated to a minimum depth of 10 inches. The excavated soil must be replaced with clean soil which contains less than 1 mg/kg PCBs. The selected remedy will meet the TSCA requirements through the construction of the Top Cover System (Cap).

Endangered Species Act

The selected remedy is protective of species listed as endangered or threatened under the Endangered Species Act . Requirements of the interagency Section 7 Consultation Process, 50 C.F.R. Part 402, were met.

National Historic Preservation Act (NHPA)

The NHPA requires that action be taken to preserve or recover historic or archaeological data that might be destroyed as a result of Site activities. There is no information to indicate that the 62nd Street Dump Site contains any historic or archaeological significance.

Occupational Health and Safety Act (OHSA)

The selected Remedial Action Contractor will develop and implement a health and safety program for its workers. All on-site workers will meet the minimum training and medical monitoring requirements outlined in 40 CFR 1910.

**STATE REGULATIONS:**Florida Administrative Code Chapter 17-3

Water quality standards for surface water and groundwater affected by leachate and storm run-off from the Site will be met.

Florida Administrative Code Chapter 17-6

Effluent limitations and operating requirements for waste-water facilities treating landfill leachate will be met.

**LOCAL REGULATIONS:**City of Tampa

The City of Tampa has established minimum quality standards for disposal to POTWs. The Disposal Standards for discharge to the local POTW were met.

Southwest Florida Water Management District (SWFWMD)

The Southwest Florida Water Management District will be consulted during remedial design to assure compliance with surface water run-off for the Site.

**8.3 Cost Effectiveness**

The elimination of the Groundwater Treatment System is cost effective since the contaminants that the system was designed to treat are currently below the cleanup goals of the selected remedy.

Table 1

**SAMPLING DATES FOR OFF-SITE GROUNDWATER  
MONITORING PROGRAM**

Year	Quarter	Sampling Date	Sampling Period
1992	3	August 28 - 31	August - September
	4	October 26 - 27	October - December
1993	1	January 26 - 27	January - March
	2	April 26	April - June
	3	July 26 - 28	July - September
	4	October 26 - 27	October - December
1994	1	January 24 - 25	January - March
	2	April 23 - 26	April - June
	3	September 1 - 2	July - September

## OFF-SITE SURFICIAL AQUIFER WATER QUALITY DATA SUMMARY

### 62ND STREET SUPERFUND SITE, TAMPA, FLORIDA

Monitor Well	Date Sampled	Field pH (Units)	Field Conductivity (µmhos/cm)	Field Temperature (°C)	Field Turbidity (N.T.U.)	Cadmium (µg/l)		Chromium (µg/l)		Lead (µg/l)		Sodium (mg/l)		Sulfate (mg/l)	
		N	N	N	N	[10]		[50]		[15]		N		N	
						U	F	U	F	U	F	U	F	U	F
MW-12S	08-31-92	6.32	1,390	24.4	NA	<0.1	<0.1	<1	<1	<1	<1	NS	NS	NS	NS
	10-27-92	6.60	1,340	24.8	NA	<0.1	<0.1	2	2	<1	1	94	100	462	419
	01-26-93	6.64	1,120	22.0	2.2	1.0	0.3	11	13	24	6	71	NA	291	NA
	03-22-93	6.80	1,021	22.6	6.0	<0.1	<0.1	<1	<1	<1	<5	NS	NS	NS	NS
	04-26-93	6.44	1,360	22.5	0.63	0.3	0.2	<1	<1	2	2	85	85	1,150	1,200
	07-27-93	6.68	1,647	22.7	NA	0.3	0.1	13	6	1	3	108	109	490	450
	10-26-93	6.35	1,286	23.0	0.40	<0.1	0.1	10	7	<1	<1	83	83	400	420
	01-25-94	5.95	1,141	22.6	NA	<0.1	<0.1	6	6	1	<1	81	81	352	350
	04-24-94	6.57	1,540	22.3	NA	<0.1	0.1	<1	<1	1	2	102	101	344	380
	09-01-94	6.93	200	23.9	NA	<0.1	<0.1	<1	<1	<1	<1	92	90	390	370
MW-13S	08-28-92	6.23	510	27.2	NA	<0.1	<0.1	1	1	<1	<1	NS	NS	NS	NS
	10-27-92	5.90	530	27.5	NA	0.1	0.1	3	<1	<1	<5	36	40	84	82
	01-27-93	5.48	610	23.2	1.0	0.7	0.2	14	13	9	9	49	NA	109	NA
	04-26-93	5.89	645	22.7	1.04	0.3	<0.1	3	2	3	1	50	50	62	69
	07-28-93	5.80	622	25.2	NA	0.1	0.1	7	6	1	<1	44	45	109	122
	10-26-93	5.61	526	26.0	15.7	0.3	<0.1	6	6	2	<1	39	39	133	124
	01-24-94	5.60	531	23.0	NA	<0.1	<0.1	6	6	2	5	46	45	108	104
	04-26-94	5.95	548	23.9	NA	<0.1	<0.1	1	1	<1	4	46	45	69	68
	09-01-94	6.08	400	26.7	NA	0.1	<0.1	1	1	<1	<1	48	50	75	81
	N = No Standard, U = Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled [ ] = E.P.A. Cleanup Level														

Monitor Well	Date Sampled	Field pH (Units)	Field Conductivity (µmhos/cm)	Field Temperature (°C)	Field Turbidity (N.T.U.)	Cadmium (µg/l)		Chromium (µg/l)		Lead (µg/l)		Sodium (mg/l)		Sulfate (mg/l)	
		N	N	N	N	[10]		[50]		[15]		N		N	
						U	F	U	F	U	F	U	F	U	F
MW-17	08-28-92	6.72	1,170	24.2	NA	<0.1	<0.1	<1	<1	<1	<1	NS	NS	NS	NS
	10-27-92	6.52	1,180	25.6	NA	<0.1	<0.1	2	3	<1	<5	20	20	1.4	<1
	01-26-93	6.54	1,050	21.0	2.75	0.3	<0.1	12	9	12	<5	20	NA	2.7	NA
	04-26-93	6.28	1,278	20.3	0.60	0.4	0.3	2	1	1	1	21	22	<1	<1
	07-28-93	6.59	781	23.1	NA	0.3	0.2	11	2	3	2	22	22	4.2	3.9
	10-26-93	6.64	1,162	24.0	2.38	<0.1	<0.1	20	6	4	<1	19	19	4.4	4.1
	01-24-94	6.35	1,141	20.7	NA	<0.1	<0.1	4	6	2	<1	21	21	8.6	8.8
	04-24-94	5.37	898	21.3	NA	<0.1	<0.1	1	1	2	<1	22	22	5.0	5.0
	09-01-94	6.68	700	25.0	NA	<0.1	<0.1	1	1	<1	3	18	18	<1	<1
MW-22	08-31-92	6.82	300	26.9	NA	<0.1	<0.1	<1	<1	<1	<1	NS	NS	NS	NS
	10-26-92	6.47	280	27.5	NA	0.1	0.1	2	2	<1	<5	1.2	1.1	5.5	5.8
	01-26-93	6.97	235	23.5	5.4	1.9	1.9	13	15	18	17	1.0	NA	<1	NA
	03-22-93	7.02	247	23.7	4.86	0.3	0.3	<1	<1	4	2	NS	NS	NS	NS
	04-26-93	6.50	322	22.9	2.57	0.3	0.2	2	<1	3	2	4.1	3.8	<1	<1
	07-26-93	7.15	278	24.9	NA	0.2	0.2	4	4	2	3	1.8	1.9	<1	2.6
	10-26-93	6.55	352	25.7	2.23	0.1	<0.1	7	6	<1	<1	2.8	2.7	5.7	2.9
	01-24-94	6.11	436	23.9	NA	<0.1	<0.1	5	4	6	1	8.3	8.2	8.0	10
	04-23-94	6.44	439	23.4	NA	<0.1	<0.1	1	<1	4	<1	10	10	12	10
	09-01-94	6.68	300	27.8	NA	0.1	<0.1	<1	<1	<1	<1	31	30	42	53

N = No Standard, U = Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled  
 [ ] = E.P.A. Cleanup Level

## OFF-SITE SURFICIAL AQUIFER WATER QUALITY DATA SUMMARY

### 62ND STREET SUPERFUND SITE, TAMPA, FLORIDA

Monitor Well	Date Sampled	Field pH (Units)	Field Conductivity (μmhos/cm)	Field Temperature (°C)	Field Turbidity (N.T.U.)	Cadmium (μg/l)		Chromium (μg/l)		Lead (μg/l)		Sodium (mg/l)		Sulfate (mg/l)	
		N	N	N	N	[10]		[50]		[15]		N		N	
						U	F	U	F	U	F	U	F	U	F
MW-23	08-31-92	11.14	6,300	27.0	NA	<0.1	<0.1	12	12	<1	<1	NS	NS	NS	NS
	10-26-92	11.65	4,500	27.2	NA	<0.1	<0.1	1	1	<1	<5	258	264	2,000	1,940
	01-26-93	11.66	6,600	23.1	29.0	0.2	<0.1	11	9	4	3	286	NA	1,820	NA
	04-26-93	11.68	5,800	23.5	8.7	0.2	0.3	3	3	5	4	280	269	1,430	1,400
	07-26-93	11.79	NA	25.1	NA	0.5	0.2	3	1	<1	3	205	216	1,550	1,630
	10-27-93	11.80	6,440	25.1	14.3	0.1	<0.1	10	8	1	1	266	264	1,890	1,820
	01-24-94	11.04	3,160	24.0	NA	0.3	<0.1	4	5	<1	<1	132	144	620	840
	04-23-94	10.64	2,260	24.0	NA	<0.1	<0.1	2	2	7	5	107	112	640	630
	09-01-94	9.11	100	27.2	NA	0.2	<0.1	2	<1	3	<1	47	52	270	280
MW-24	08-31-92	9.29	3,100	27.2	NA	<0.1	<0.1	4	2	<1	<1	NS	NS	NS	NS
	10-26-92	9.88	2,700	27.2	NA	0.3	0.2	1	<1	2	2	192	185	1,240	1,280
	01-26-93	9.44	3,610	23.5	3.4	1.3	1.3	13	13	16	6	214	NA	1,260	NA
	04-26-93	9.96	3,910	22.5	1.70	0.3	0.2	<1	<1	3	3	214	216	1,690	1,510
	07-26-93	9.63	3,660	25.1	NA	0.5	<0.1	13	8	1	<1	167	169	1,350	1,420
	10-27-93	11.07	3,890	25.0	12.2	0.1	<0.1	9	8	2	1	218	224	1,490	1,360
	01-24-94	8.98	3,350	22.2	NA	0.2	0.2	8	7	<1	<1	201	191	1,080	1,250
	04-24-94	8.26	1,344	23.2	NA	0.2	<0.1	1	<1	6	2	55	59	424	428
	09-01-94	9.01	<100	27.8	NA	0.5	0.7	2	1	4	7	111	109	740	730

N = No Standard, U= Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled  
 [ ] = E.P.A. Cleanup Level

Monitor Well	Date Sampled	Field pH (Units)	Field Conductivity (µmhos/cm)	Field Temperature (°C)	Field Turbidity (N.T.U.)	Cadmium (µg/l)		Chromium (µg/l)		Lead (µg/l)		Sodium (mg/l)		Sulfate (mg/l)	
		N	N	N	N	[10]		[50]		[15]		N		N	
						U	F	U	F	U	F	U	F	U	F
MW-25	08-31-92	9.80	2,300	28.2	NA	<0.1	<0.1	1	<1	<1	<1	NS	NS	NS	NS
	10-26-92	8.72	1,900	27.8	NA	<0.1	<0.1	7	1	5	3	73	74	834	662
	01-27-93	8.60	2,300	22.8	6.7	<0.1	<0.1	17	13	12	<5	83	NA	870	NA
	04-26-93	7.42	1,940	23.2	0.78	0.2	<0.1	<1	2	<1	2	64	65	640	510
	07-27-93	8.77	2,500	26.5	NA	<0.1	<0.1	5	5	4	<1	92	97	830	610
	10-27-93	7.45	1,544	26.0	1.20	<0.1	<0.1	10	7	1	<1	39	40	370	260
	01-24-94	6.72	1,397	22.2	NA	0.1	<0.1	6	4	<1	2	35	40	424	402
	04-24-94	6.98	1,918	24.0	NA	<0.1	<0.1	<1	<1	2	<1	37	35	514	524
	09-02-94	7.02	1,300	27.2	NA	<0.1	<0.1	1	<1	<1	1	22	22	338	384
MW-26	08-31-92	7.02	3,400	27.6	NA	<0.1	<0.1	23	8	<1	<1	NS	NS	NS	NS
	10-27-92	6.93	3,400	27.5	NA	<0.1	<0.1	5	4	<1	<5	670	663	<1	<1
	01-27-93	6.57	3,000	23.8	1.0	<0.1	<0.1	12	12	<1	<5	482	NA	<1	NA
	04-26-93	6.86	3,100	22.9	0.49	<0.1	<0.1	1	<1	<1	3	482	502	1.2	2.1
	07-27-93	6.71	4,010	25.9	NA	0.1	<0.1	8	5	<1	<1	132	126	<1	<1
	10-27-93	6.85	4,160	26.2	1.85	0.1	<0.1	12	12	<1	<1	746	748	15	14
	01-25-94	6.40	2,280	22.4	NA	<0.1	<0.1	8	8	<1	<1	356	358	<1	<1
	04-24-94	6.91	3,670	23.5	NA	<0.1	<0.1	5	5	2	2	676	660	15	14
	09-02-94	7.26	3,700	27.2	NA	<0.1	<0.1	4	4	2	<1	669	679	26	26
MW-28*	01-28-93	6.36	700	22.3	30.2	0.2	<0.1	12	5	7	3	41	NA	52	NA
	04-26-93	6.92	570	21.6	2.43	0.2	0.2	4	2	12	4	29	30	34	37
	07-27-93	6.71	957	24.6		0.1	<0.1	3	3	11	3	109	111	3.5	2.0

N = No Standard, U = Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled  
 [ ] = E.P.A. Cleanup Level  
 \* Monitor Well MW-28 was installed on January 25, 1993 and removed on September 10, 1993



Table 3

**FIELD SPECIFIC CONDUCTANCE VALUES FOR  
APRIL 1994 AND SEPTEMBER 1994 SAMPLING EVENTS**

Monitor Well	Specific Conductance (µmhos/cm)			
	April 1994	September 1994		
	Field Measured	Date	Field Measured	Laboratory Measured
MW-12S	1,540	09-01-94	200	1,200
MW-13	548	09-01-94	400	580
MW-17	898	09-01-94	700	1,000
MW-22	439	09-01-94	300	480
MW-23	2,260	09-01-94	100	1,000
MW-24	1,344	09-01-94	100	2,400
MW-25	1,918	09-02-94	1,300	1,300
MW-26	3,670	09-02-94	3,700	3,400

## OFF-SITE SURFICIAL AQUIFER QA/AC WATER QUALITY DATA SUMMARY

Monitor Well	Date Sampled	Field pH (Units)	Field Conductivity (µmhos/cm)	Field Temperature (°C)	Field Turbidity (N.T.U.)	Cadmium (µg/l)		Chromium (µg/l)		Lead (µg/l)		Sodium (mg/l)		Sulfate (mg/l)	
		N	N	N	N	[10]		[50]		[15]		N		N	
						U	F	U	F	U	F	U	F	U	F
EQUIPMENT BLANK															
MW-28	08-28-92	6.10	580	27.0	NA	<0.1	<1	<1	<1	<1	<1	NS	NS	NS	NS
MW-28	10-26-92	6.50	500	25.0	NA	<0.1	<0.1	<1	<1	<1	<5	0.11	0.10	<1	<1
MW-13B	01-26-93	6.75	100	21.0	NA	0.3	0.2	17	16	4	3	1.9	NA	<1	NA
MW-22B	03-22-93	7.60	800	22.0	NA	0.2	<0.1	2	<1	4	<5	NS	NS	NS	NS
MW-29	04-26-93	NA	NA	NA	NA	0.2	0.2	<1	<1	<1	4	0.11	0.20	<1	<1
MW-30	07-26-93	4.51	20	31.5	NA	0.3	0.3	3	5	<1	2	<0.05	<0.05	<1	<1
MW-30	10-26-93	7.03	150	25.8	NA	<0.1	0.1	6	7	4	3	<0.05	<0.05	<1	<1
MW-30	01-24-94	4.74	13	17.5	NA	0.3	<0.1	3	3	3	2	0.29	0.39	<1	<1
MW-30	04-23-94	6.0	29	24.8	NA	<0.1	<0.1	<1	<1	<1	<1	0.62	0.12	<1	<1
MW-30	09-01-94	NA	NA	NA	NA	<0.1	<0.1	<1	<1	<1	<1	0.14	0.09	<1	<1
DUPLICATE SAMPLE															
MW-12D (MW-12S)	01-28-93	6.50	1,100	22.0	2.2	0.3	0.2	12	12	6	5	70	NA	330	NA
MW-31 (MW-25)	07-27-93	8.77	2,500	26.5	NA	0.2	<0.1	6	14	3	3	90	90	735	730
MW-31 (MW-13S)	10-26-93	5.50	540	26.2	NA	<0.1	<0.1	8	7	<1	2	39	41	124	53
MW-31 (MW-25)	01-24-94	6.72	1,399	22.2	NA	<0.1	<0.1	5	5	1	3	36	38	408	462
MW-31 (MW-23)	04-23-94	10.64	2,260	24.0	NA	<0.1	<0.1	2	1	8	<1	101	112	680	690
MW-31 (MW-24)	09-01-94	9.01	115	27.8	NA	0.1	0.3	2	<1	2	5	110	107	770	720

N = No Standard, U= Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled  
 [ ] = E.P.A. Cleanup Level

## OFF-SITE SURFICIAL AQUIFER QA/AC WATER QUALITY DATA SUMMARY

### 62ND STREET SUPERFUND SITE, TAMPA, FLORIDA

N = No Standard, U= Unfiltered, F = Filtered, NA = Not Analyzed, NS = Not Sampled  
[ ] = E.P.A. Cleanup Level

Table 5

**OFF-SITE SURFICIAL AQUIFER PRECISION AND ACCURACY DATA SUMMARY  
62ND STREET SUPERFUND SITE, TAMPA, FLORIDA**

Monitor Well	Date Sampled	Precision				Accuracy		
		Measurement No. 1		Measurement No. 2		Measured	Standard	Percent (%)
		Field pH (Units)	Field Conductivity ( $\mu$ mhos/cm)	Field pH (Units)	Field Conductivity ( $\mu$ mhos/cm)	Field pH (Units)	Field pH (Units)	
MW-12S	10-27-92	6.60	1,340	6.61	1330	6.02	6.00	100
MW-13S	10-27-92	5.90	530	5.90	540	5.98	6.00	100
MW-17	10-27-92	6.52	1,190	6.52	1190	6.00	6.00	100
MW-24	10-26-92	9.88	2,700	9.88	2700	6.00	6.00	100
MW-25	10-26-92	8.72	1,900	8.73	1900	6.00	6.00	100
MW-26	10-27-92	6.93	3,400	6.93	3400	6.00	6.00	100
MW-12S	03-22-93	6.80	1,021	6.78	1030	6.20	6.00	97

MW-21

MW-15

62nd STREET SITE

MW-7S ▲

▲ MW-2

MW-22

▲ MW-3

MW-4 ▲

MW-1 ▲

▲ MW-8S

MW-23

MW-5

MW-6 ▲

MW-24

▲ MW-9S

▲ MW-10S

MW-26

MW-25

MW-13S ●

MW-19 ●

MW-14S ●

COLUMBUS DR.

MW-20

62nd ST.

MW-18 ●

BROADWAY

MW-17

MW-16

EUGENE ST.

DIAMOND ST.

27th ST.

## MONITOR WELLS LOCATIONS



0 150 300  
SCALE: 1"=300'

### LEGEND

- FS SHALLOW WELL
- ▲ RI SHALLOW WELL
- ◆ RD MONITOR WELL

**Ardaman & Associates, Inc.**  
Geotechnical, Environmental and  
Materials Consultants

**OFF-SITE GROUNDWATER  
MONITORING PROGRAM  
62nd STREET SUPERFUND SITE  
HILLSBOROUGH COUNTY, FLORIDA**

DRAWN BY: RBE CHECKED BY: *[Signature]* DATE: 12/08/94  
FILE NO. 93-025 ASSESSMENT BY: *[Signature]* SCALE: 1

CADD FILE: 11944201 12/09/94

## **Responsiveness Summary**

## RESPONSIVENESS SUMMARY

U.S. Environmental Protection Agency (EPA established a public comment period from May 23, 1995, through June 23, 1995 for interested parties to comment on the proposed Amendment to the Record of Decision at the 62nd Street Dump Superfund Site (Site). During the comment period, EPA conducted a public meeting on May 23, 1995, at the Kenley Park Community Center in Tampa, Florida. The meeting presented the results of the off-site groundwater monitoring program which showed that the contaminants of concern in the surficial aquifer have been measured consistently below 1990 Record of Decision cleanup goals. During the public meeting, the community was informed of the availability of a Technical Assistance Grant (TAG).

A responsive summary is required by Superfund policy to provide a summary of the citizens' comments and concerns about the Site, as raised during the public comment period, and responses to those comments. All comments from the public have been considered and factored into the decision to amend the selected remedy.

Three major questions were asked during the public meeting on May 23, 1995.

1. One citizen inquired about the nature of the remedy he asked about the "Cement Cap?".

**EPA Response:** The selected remedy includes a soil/sand/clay cap with a high density polyethylene cover and the solidification of all non-cement wastes and contaminated soil with cement. These components are two distinctly different parts of the selected remedy. The Solidification/Stabilization of the non-cement wastes and contaminated soils with approximately 35% cement lasted from December 1994 through May 1995. The Landfill Cap and vegetative cover was completed in June of 1995.

2. At the meeting, someone asked "what is the future scope of that land?". The citizens were concerned about the possible future uses of the site.

**EPA Response:** Deed restrictions will be placed on the Site. The integrity of the cap must be protected. Digging on the site will be restricted to six inches. The property owners and other Potentially Responsible Parties are responsible for maintaining the site and its integrity. Currently, the site has been zoned residential. Property zoning is under the jurisdiction of Hillsborough County. The site will be prohibited from becoming a landfill through these restrictions.

3. The citizens voiced concern that the property north of the

62nd Street Dump may have contaminates in its groundwater or surface water.

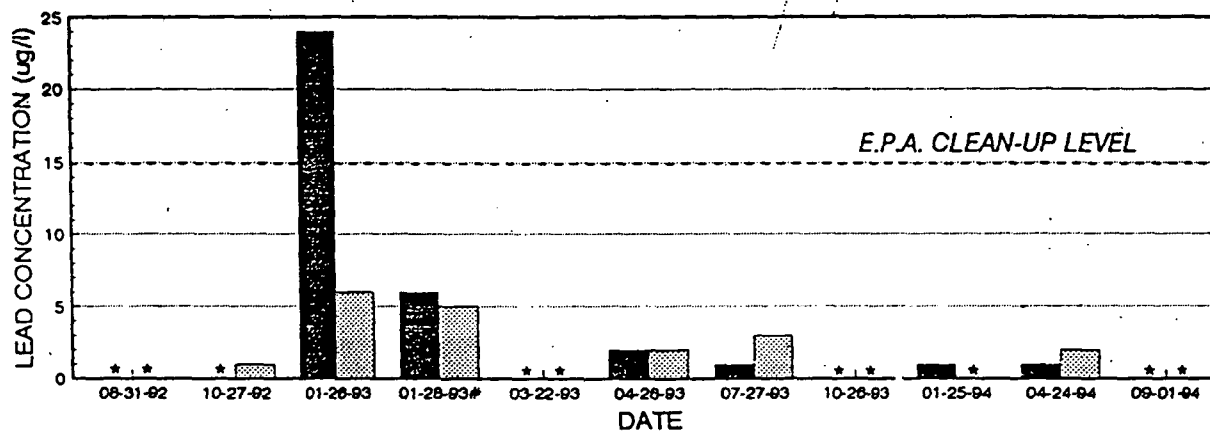
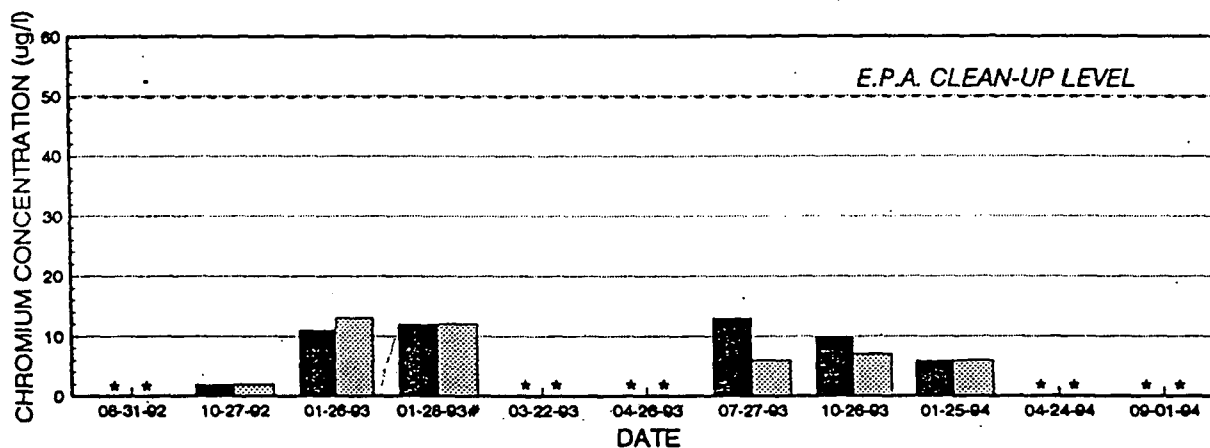
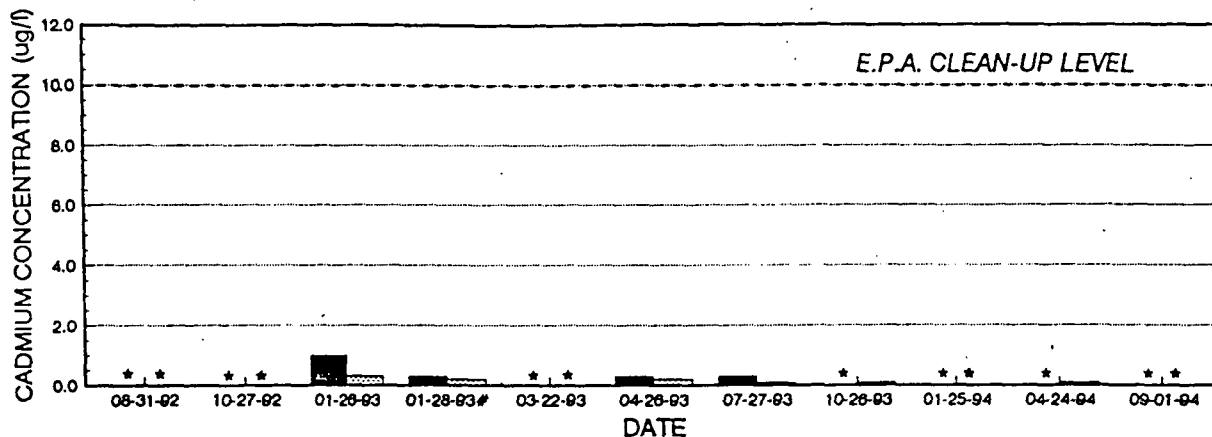
**EPA Response:** Monitor wells (one in the north-east corner of the site - MW-7S and the other directly north of the site - MW-15) were sampled as part of the Remedial Investigation were found to have levels comparable to a normal sample. In fact, MW-15 is considered a background/normal sample. The Kasouf-Kimerling Site is another Superfund site which is located to north-west with respect to the 62nd Street Dump. The Kimerling site is currently being cleaned up, also.

In general, the public has no objections to the amendment to the selected remedy.



## Appendix 1


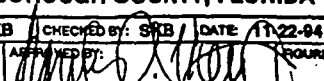
### **Graphical Representations of Groundwater Quality Data**

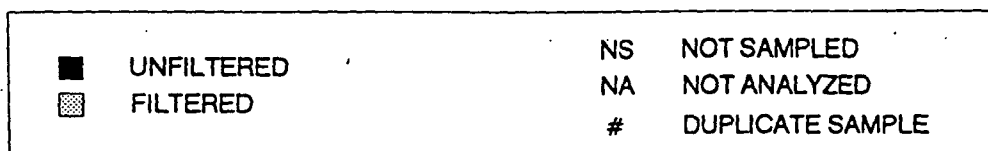
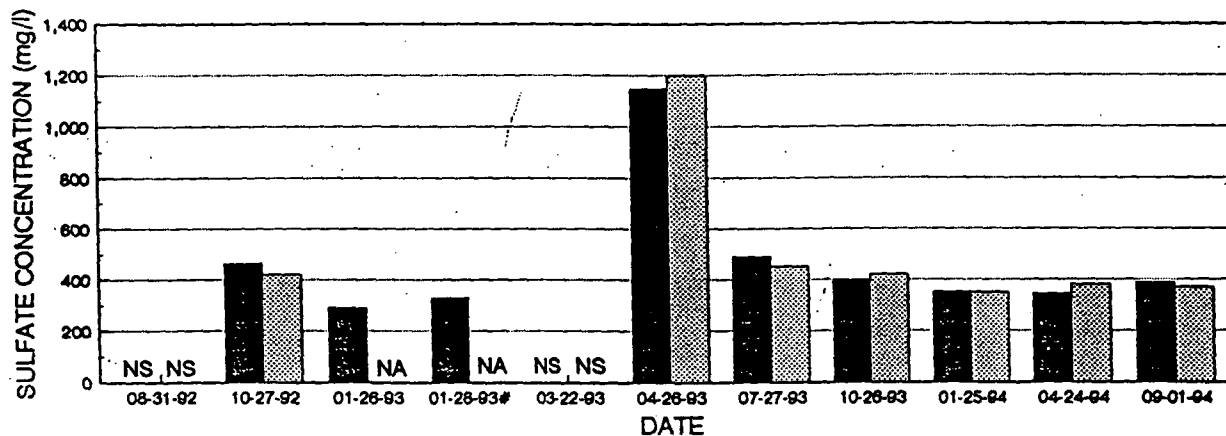
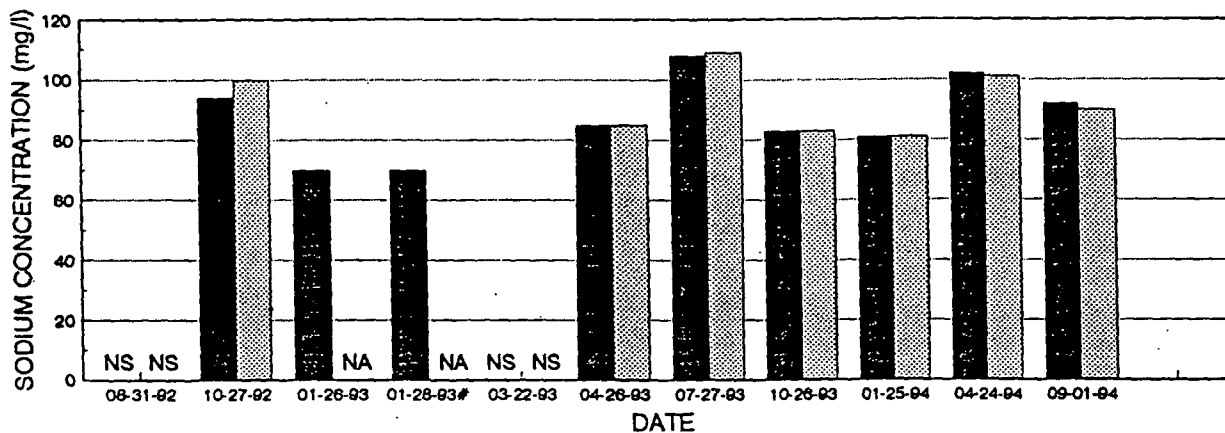


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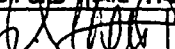
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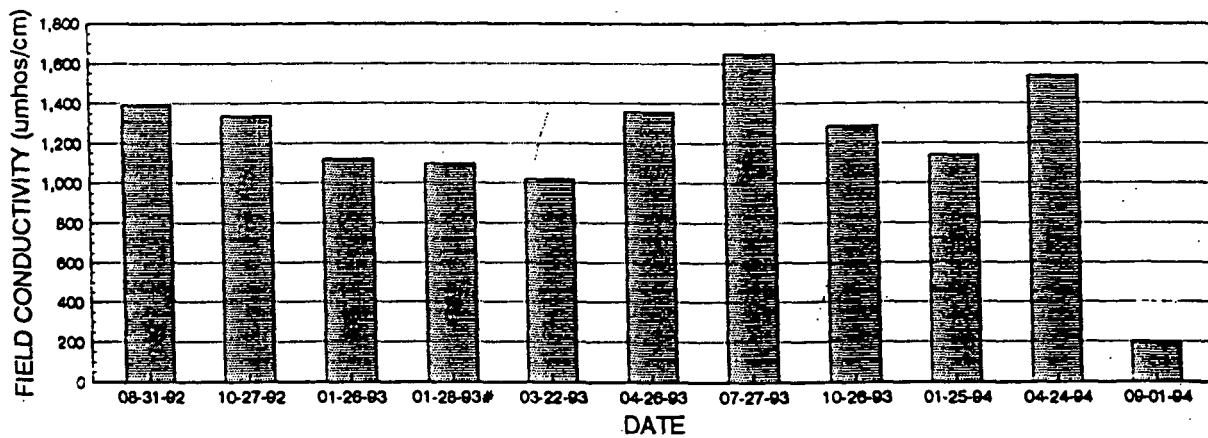
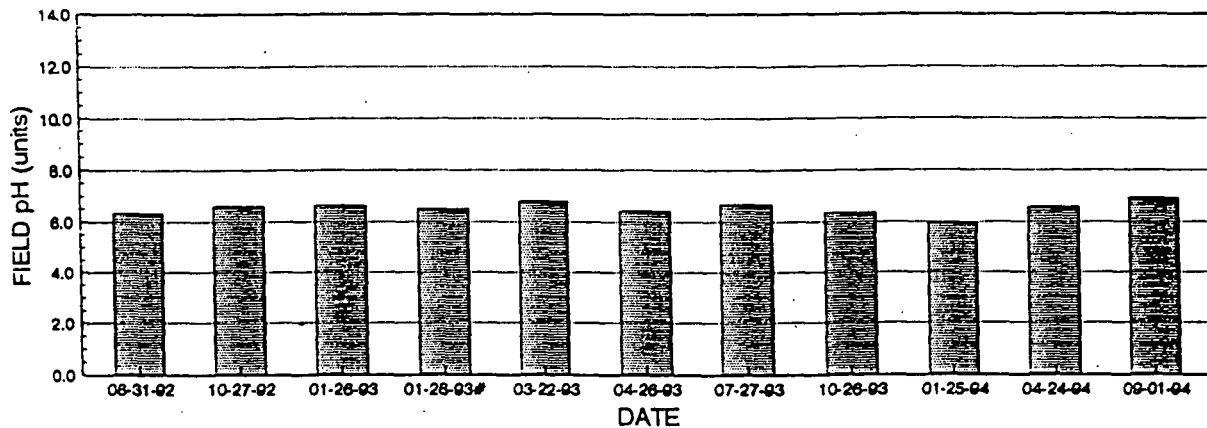
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-12S**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER          MONITORING PROGRAM</b> 62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO: 93-025	APPROVED BY: 	




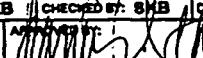
## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-12S

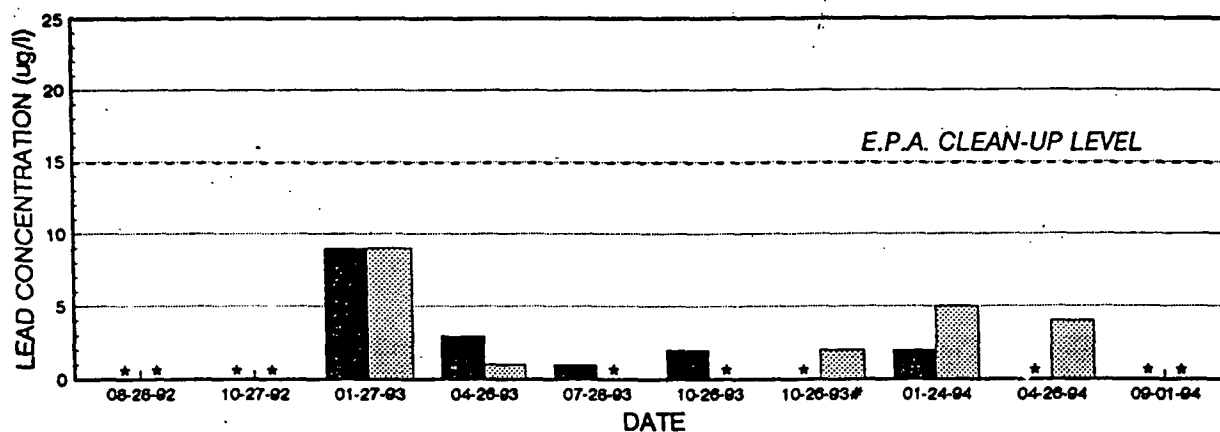
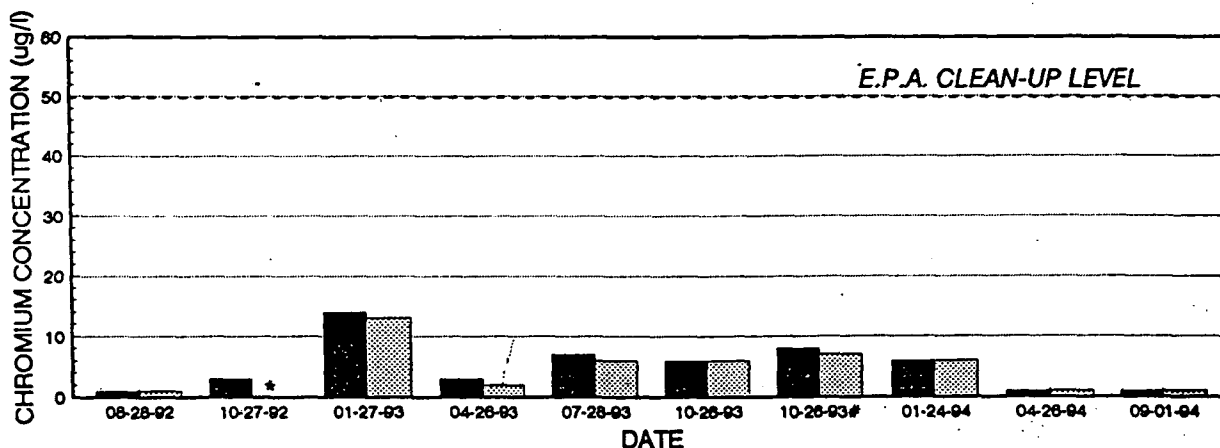
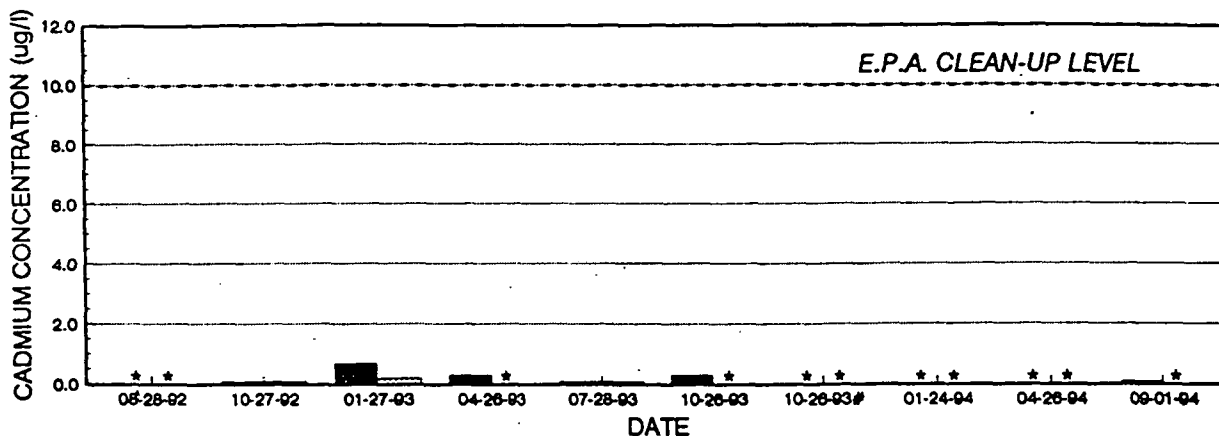
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER            MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
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# DUPLICATE SAMPLE



### pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-12S

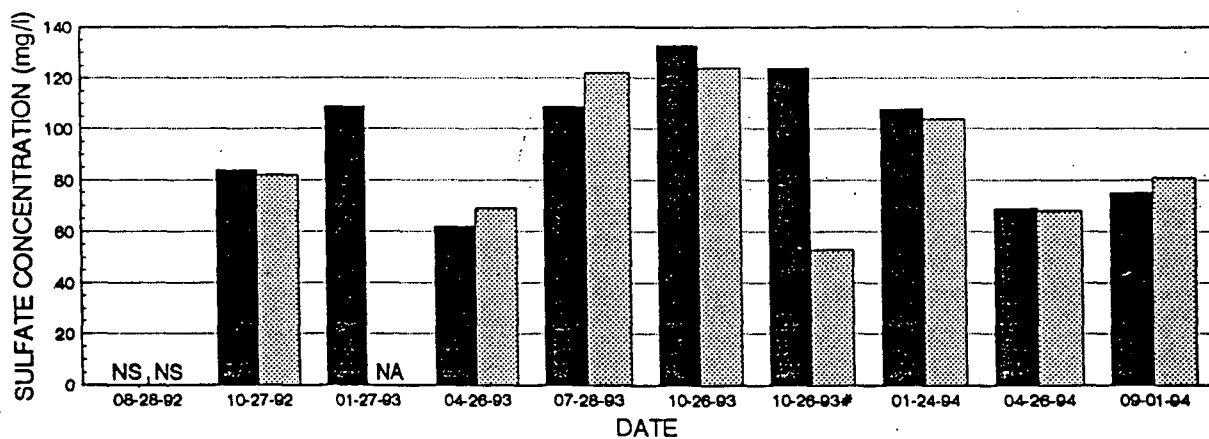
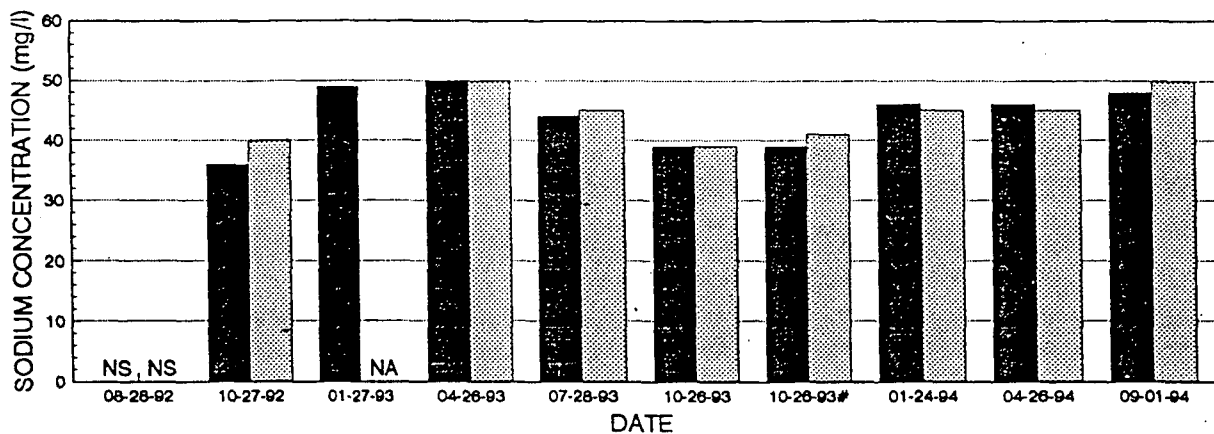
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE:



■ UNFILTERED	* BELOW DETECTION LIMIT
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## CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-13S

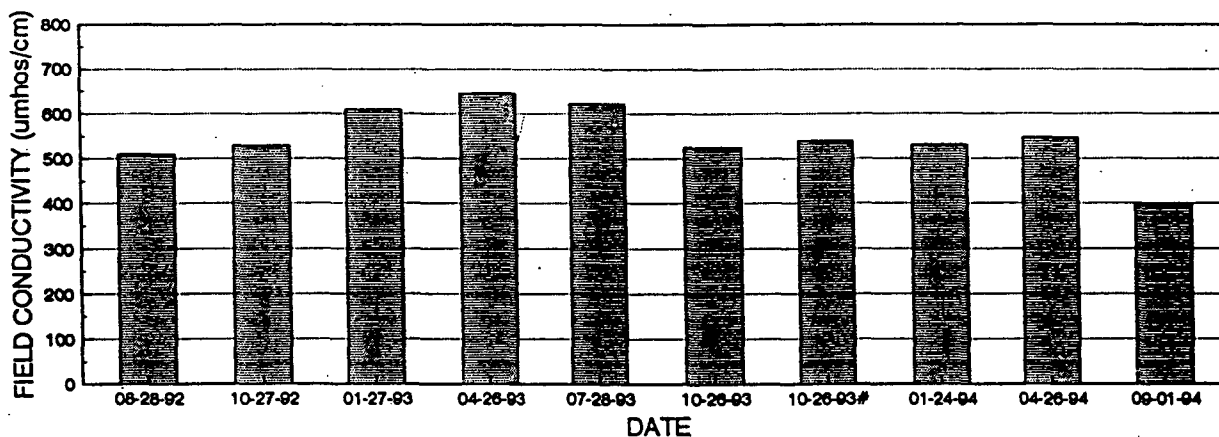
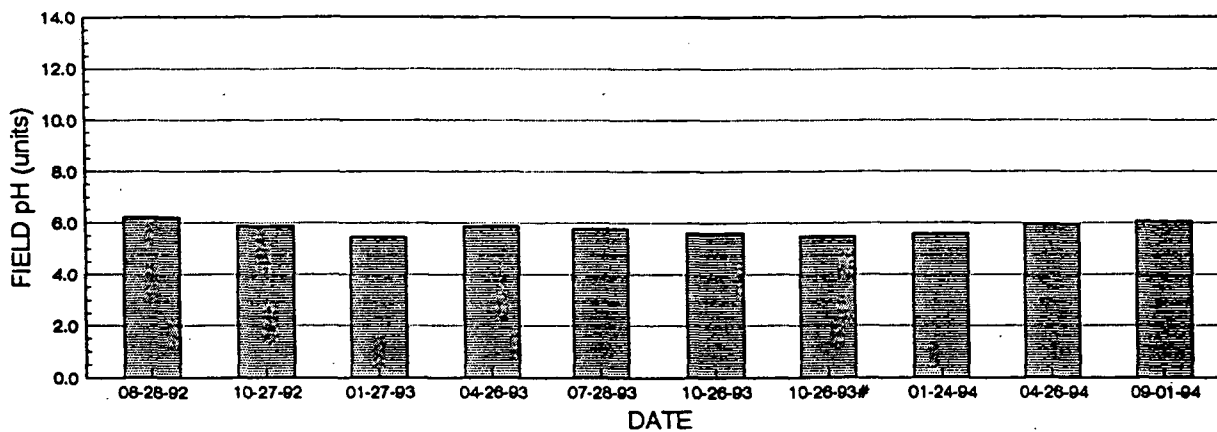
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-29-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE:



■ UNFILTERED	NS NOT SAMPLED
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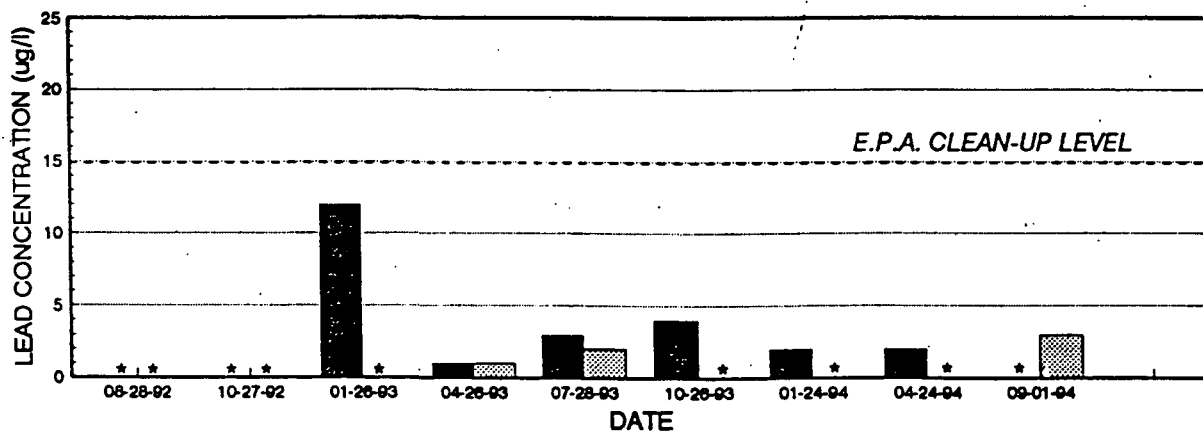
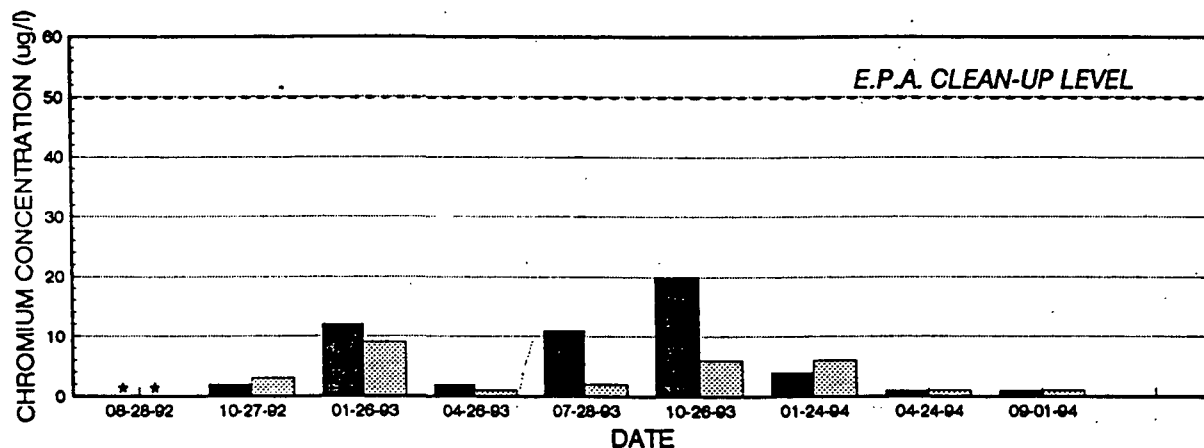
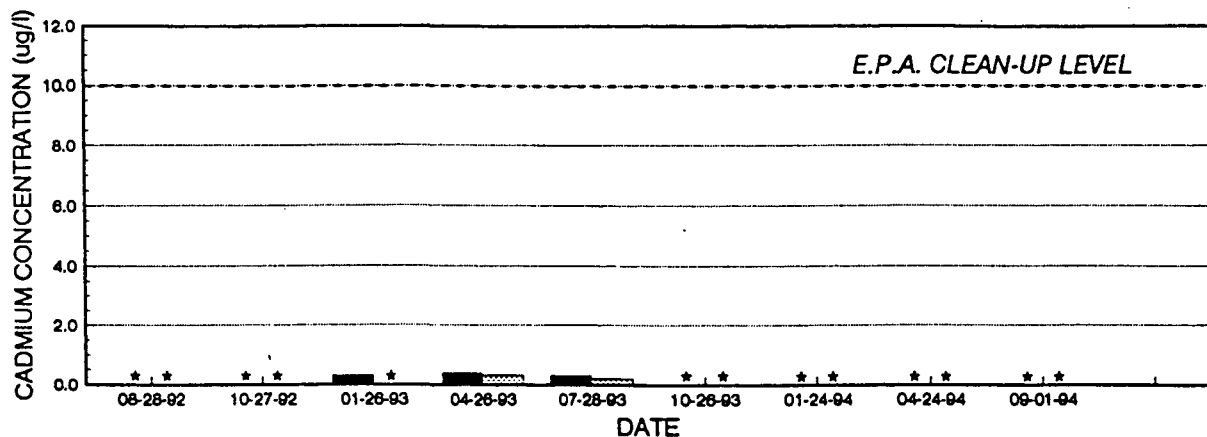
<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> 62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO: 93-025	APPROVED BY: IN CHARGE	



# DUPLICATE SAMPLE

## pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-13S


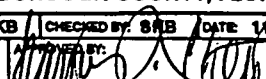
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FILE NO: 93-025	APPROVED BY: 	DATE: 11-22-94	BY: 



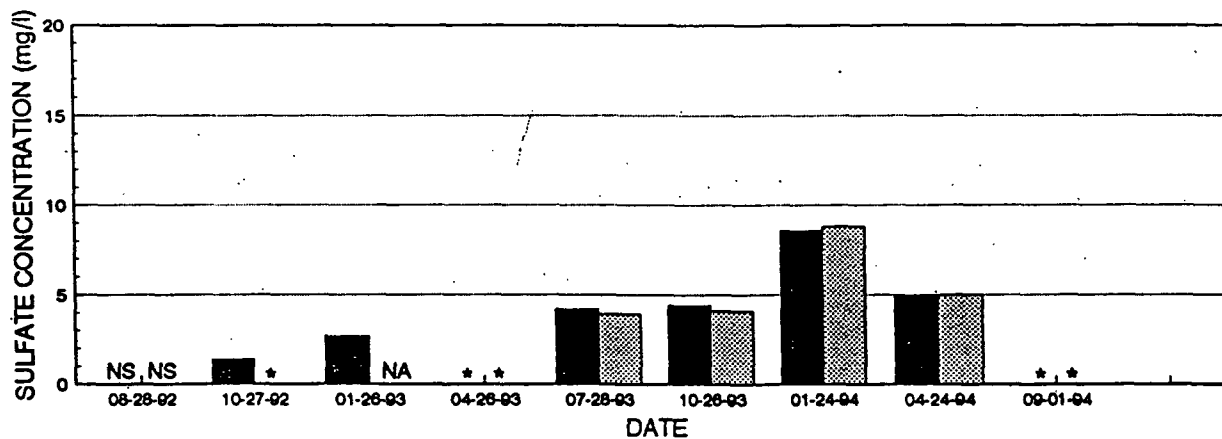
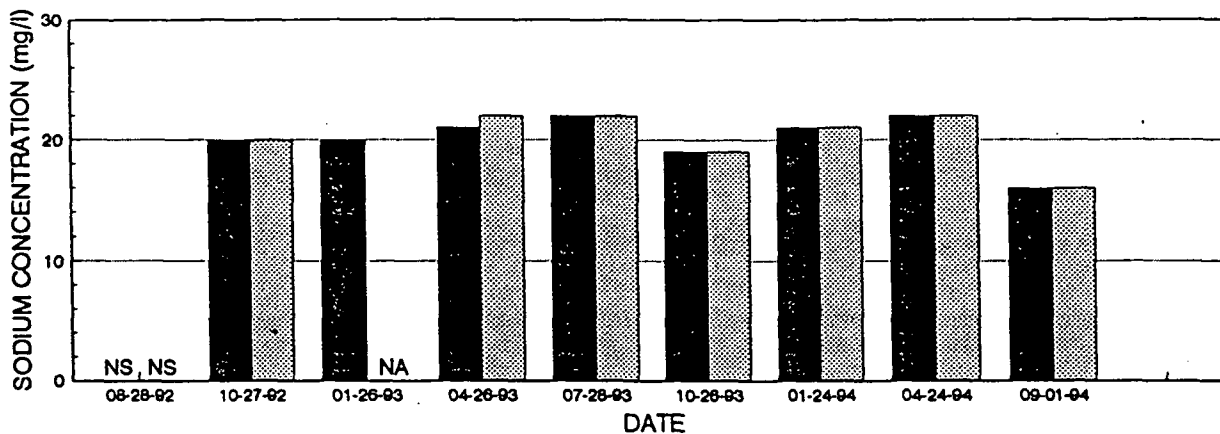
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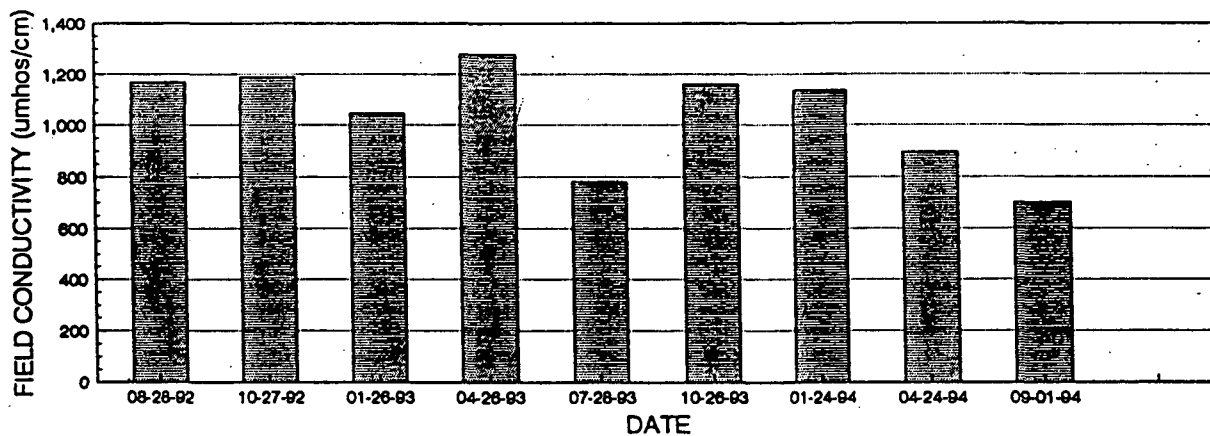
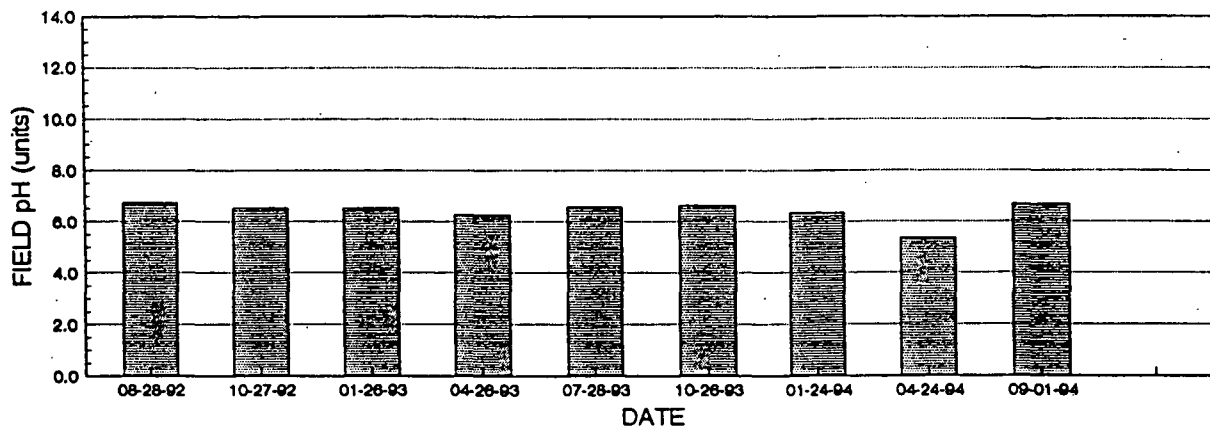
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER          MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SSB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	
FIGURE		




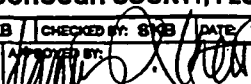


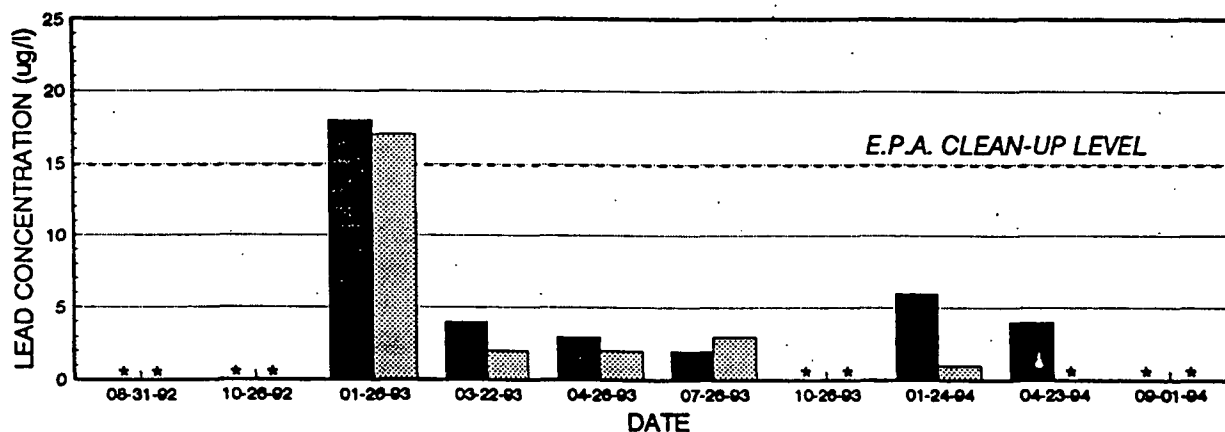
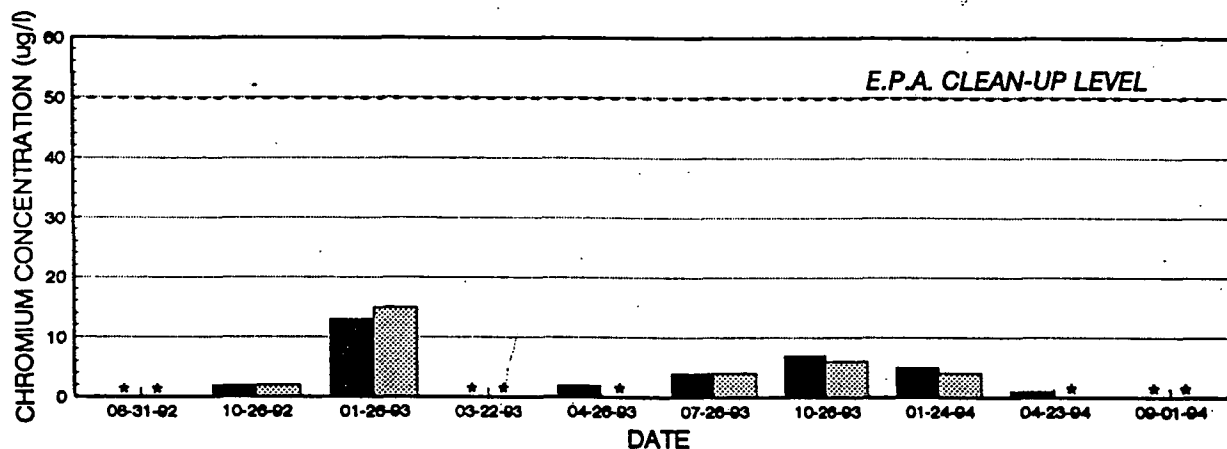
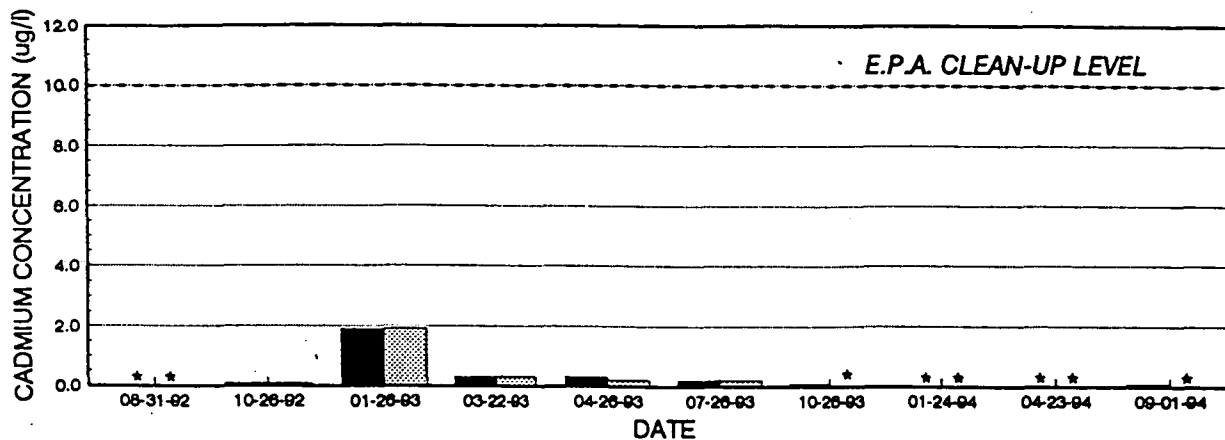
## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-17

<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER            MONITORING PROGRAM</b> <b>82nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY:	FIGURE:



**pH AND CONDUCTIVITY VALUES  
IN OFF-SITE MONITOR WELL MW-17**



 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
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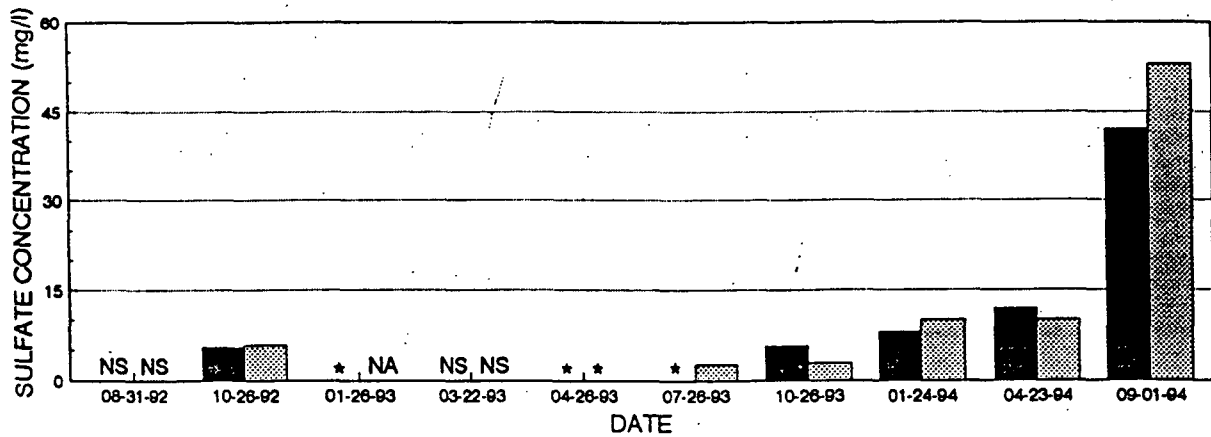
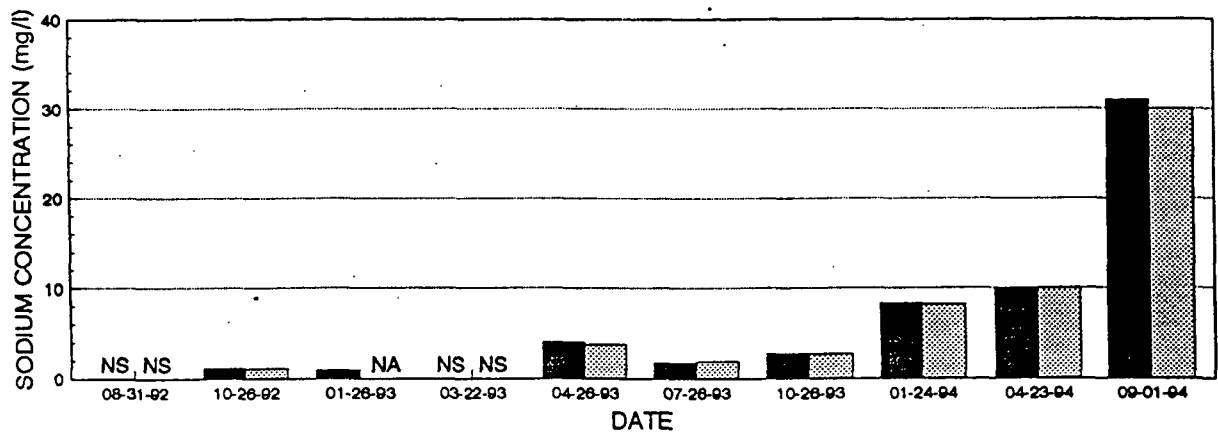


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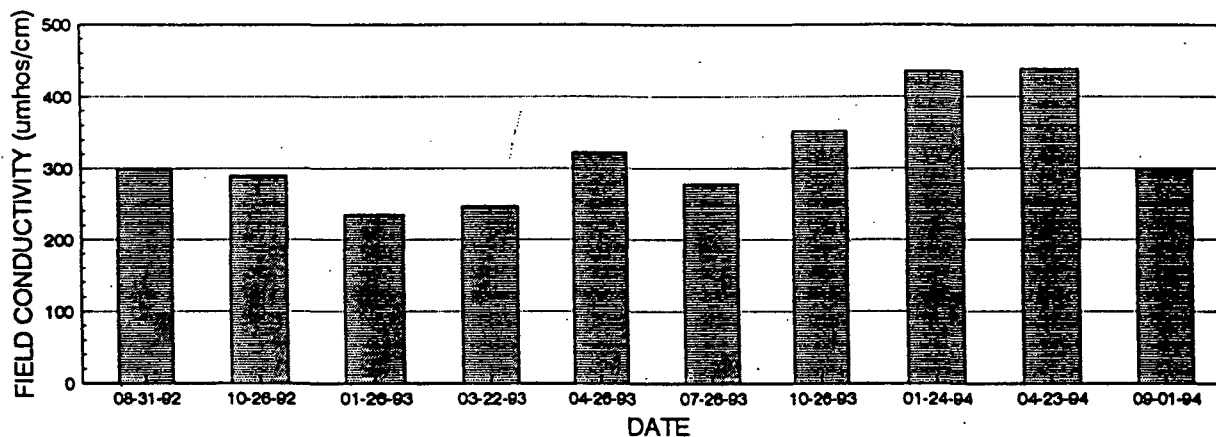
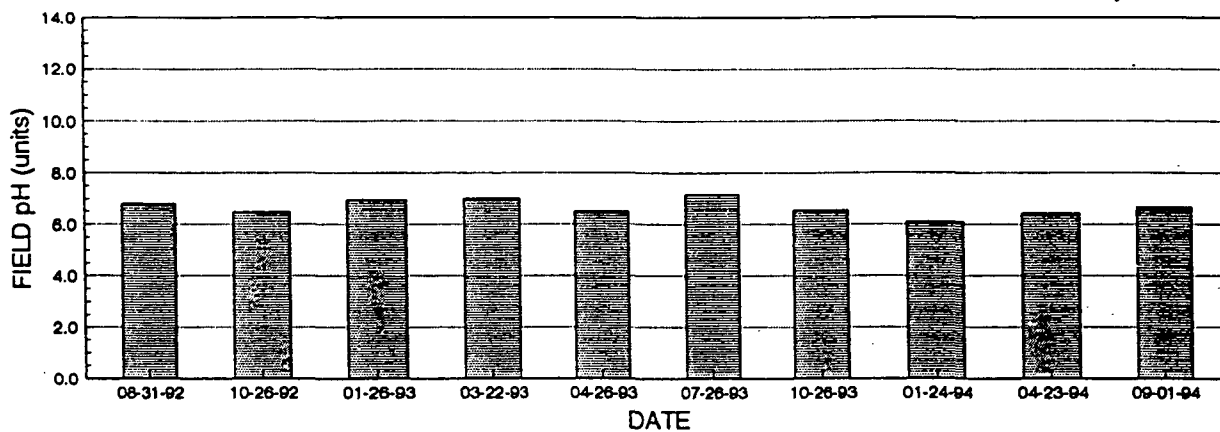
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-22**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> 62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE:





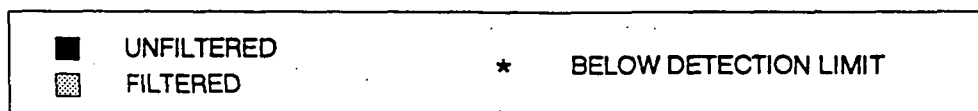
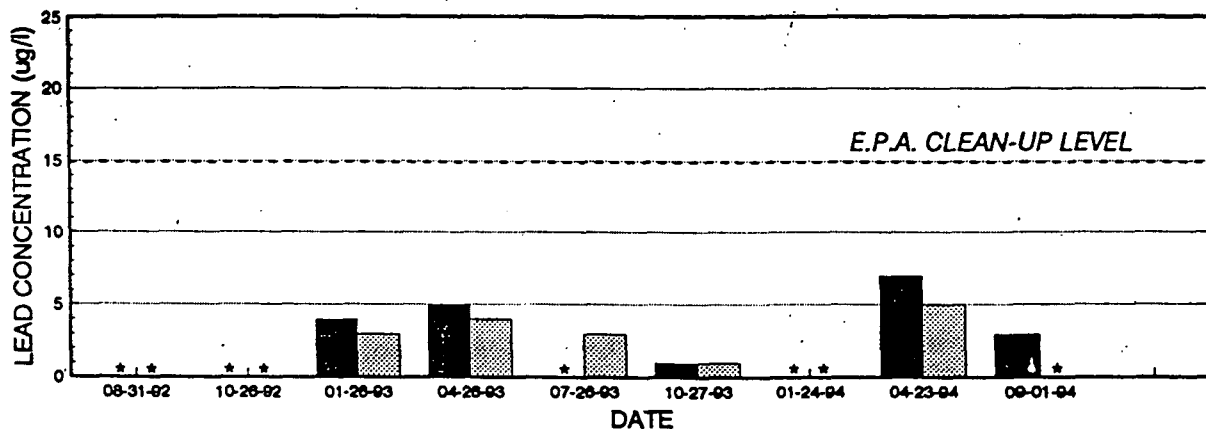
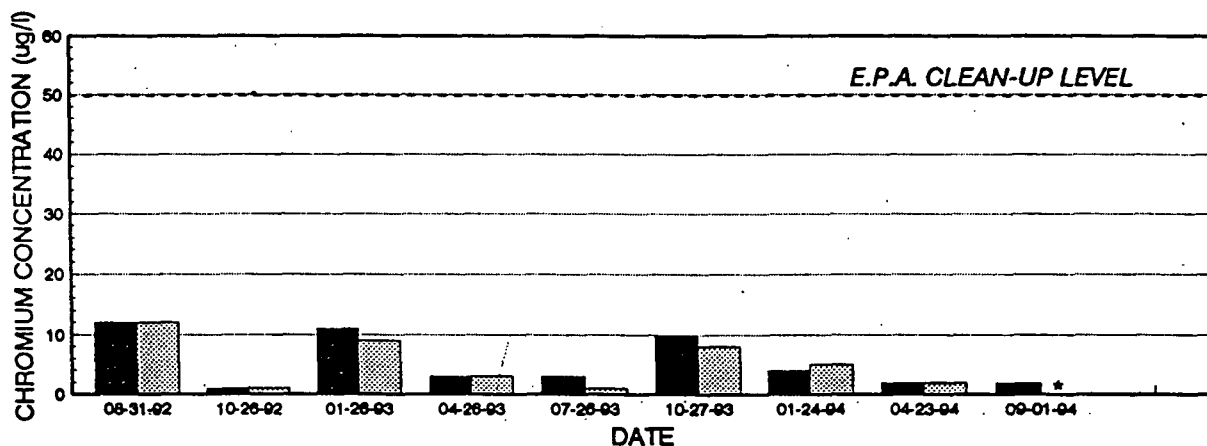
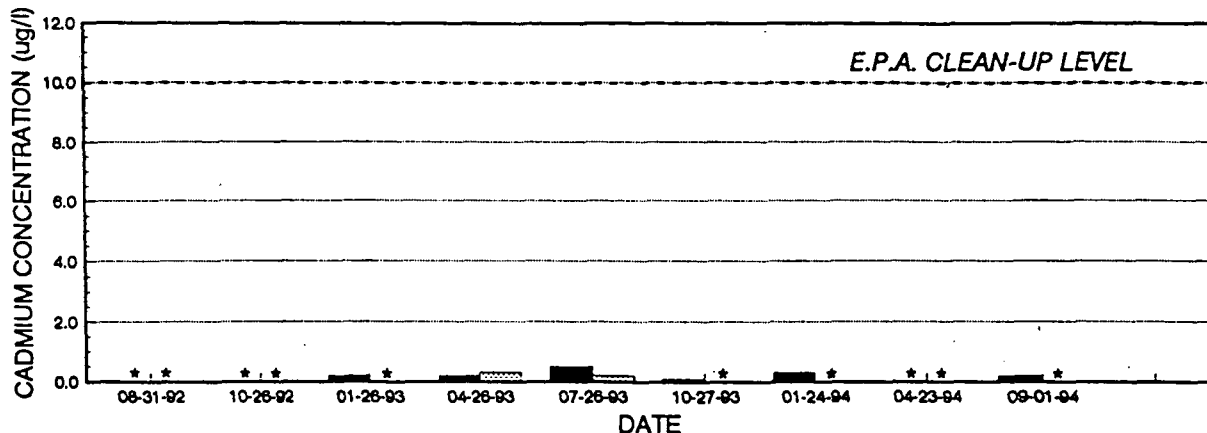
## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-22

<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants			
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>			
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94	
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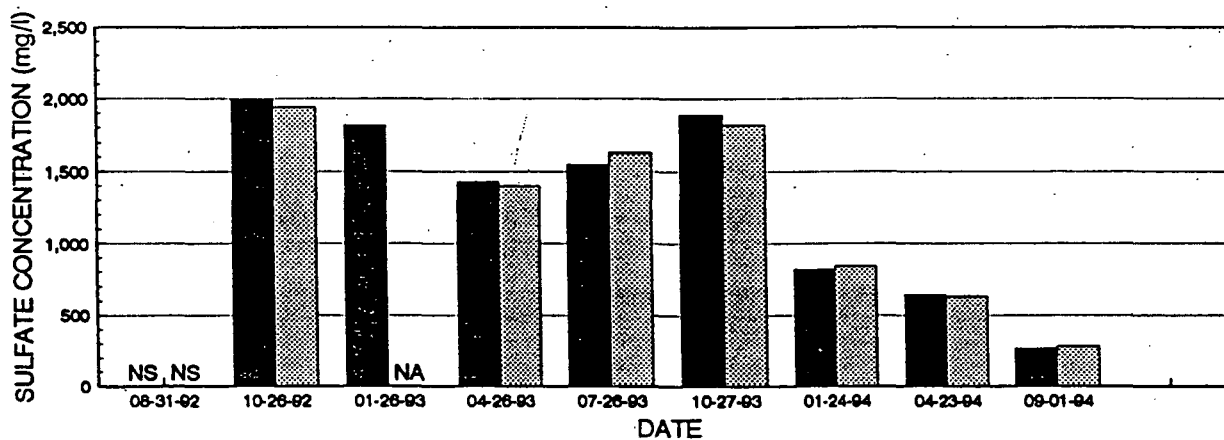
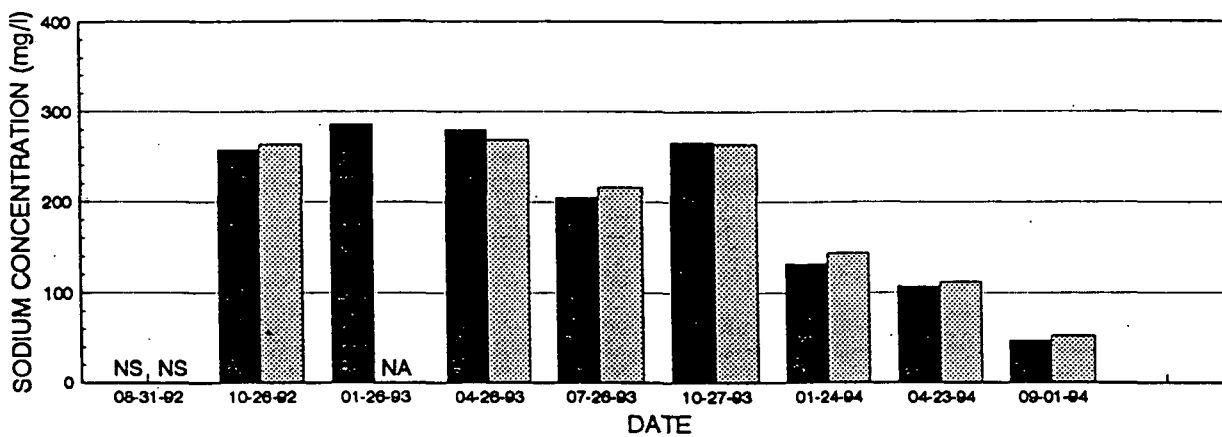
**pH AND CONDUCTIVITY VALUES  
IN OFF-SITE MONITOR WELL MW-22**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
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FILE NO.: 93-025	APPROVED BY: 	FIGURE

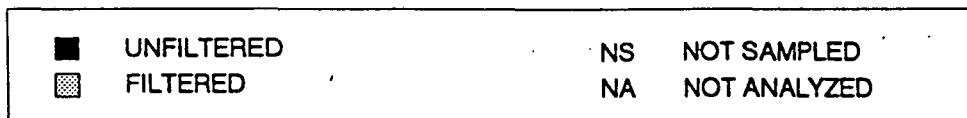


# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-23**

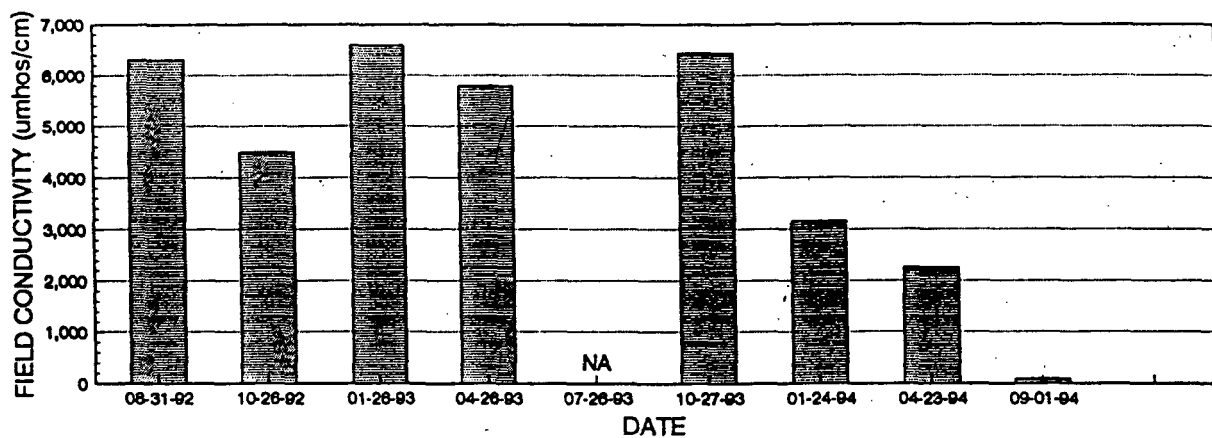
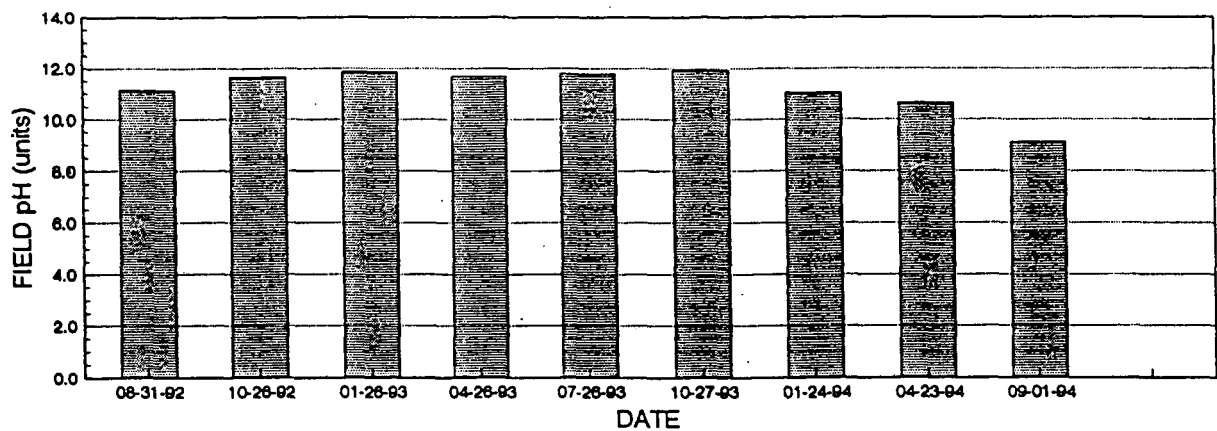
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> 62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	PROJECT: 



## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-23


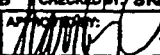



<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER            MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA            HILLSBOROUGH COUNTY, FLORIDA</b>		
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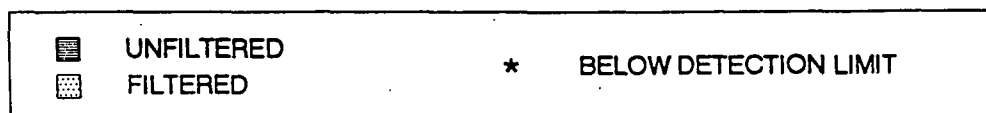
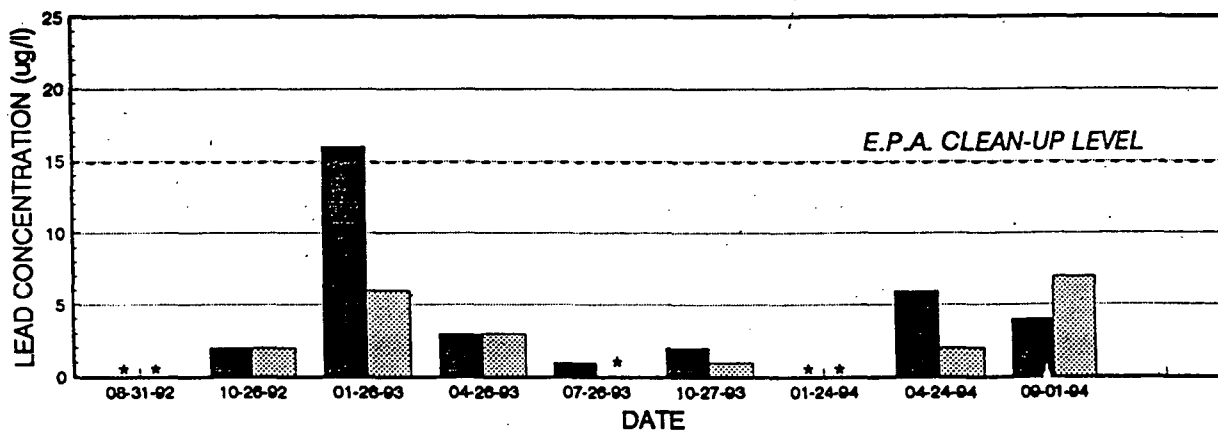
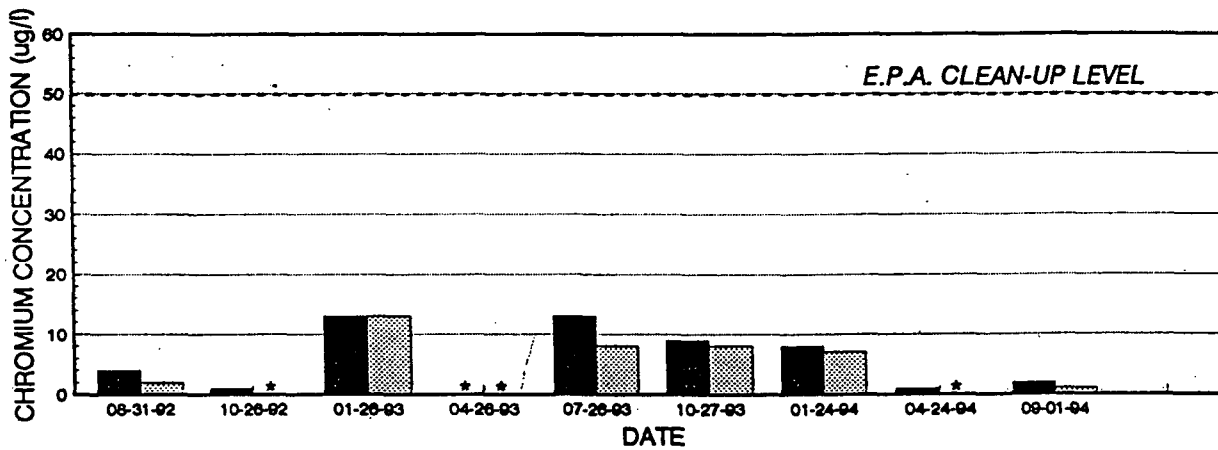
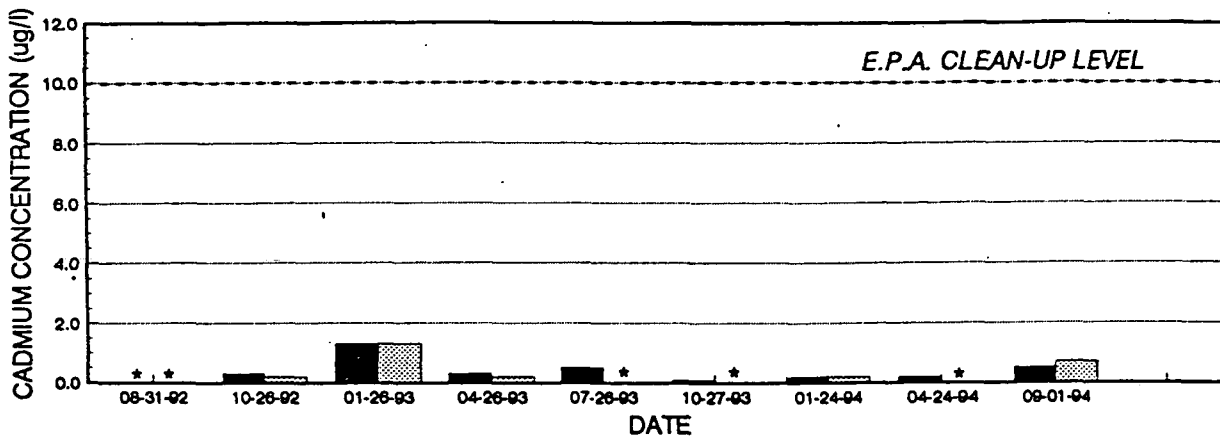


NA NOT ANALYZED




### pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-23

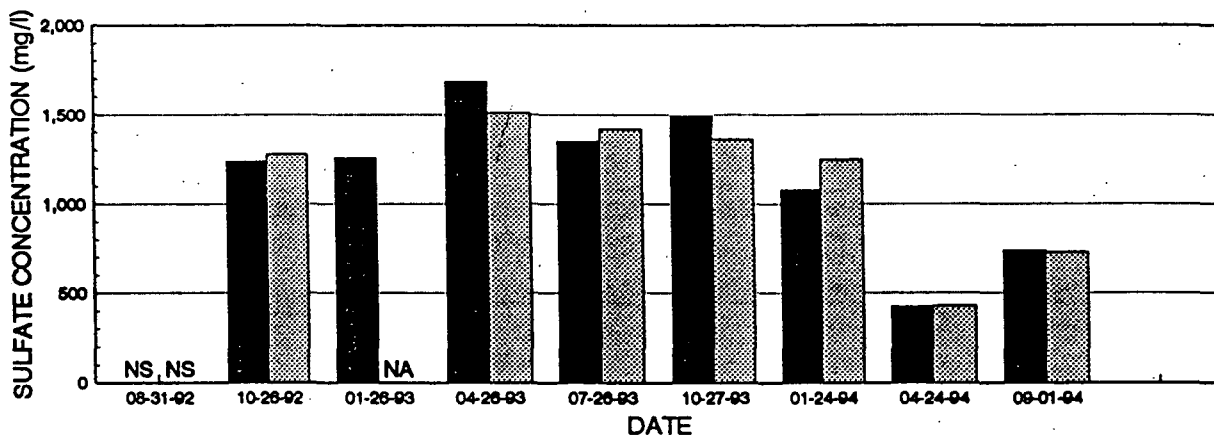
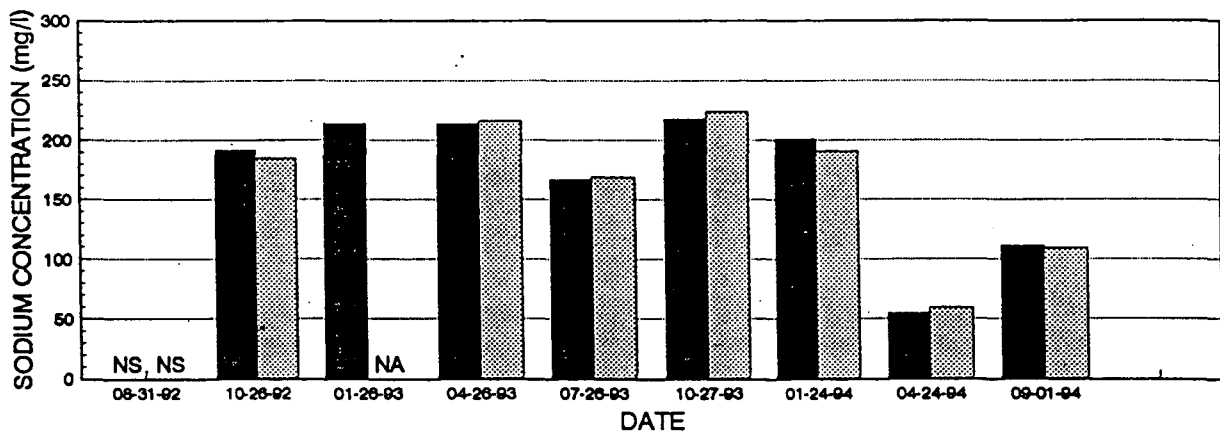
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<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: S KB	CHECKED BY: S KB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE: 





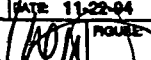


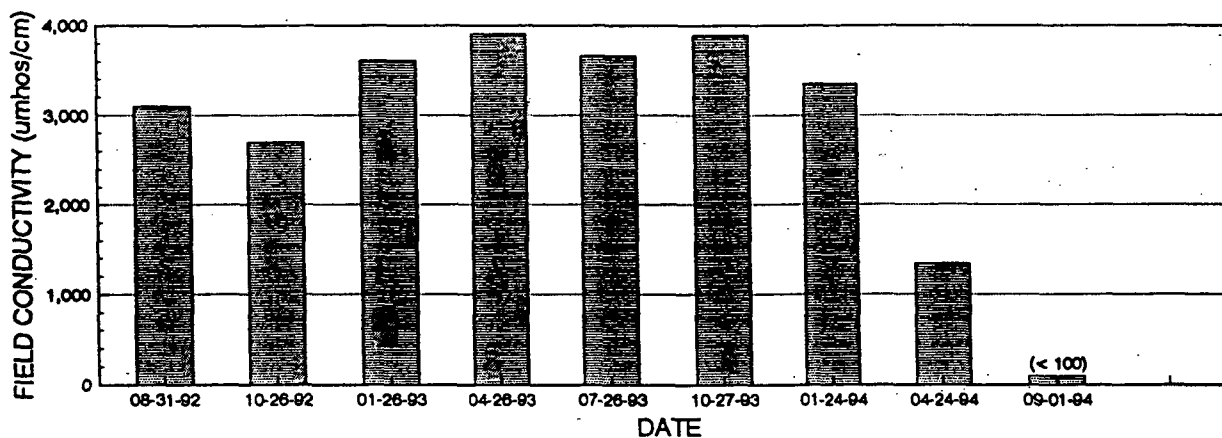
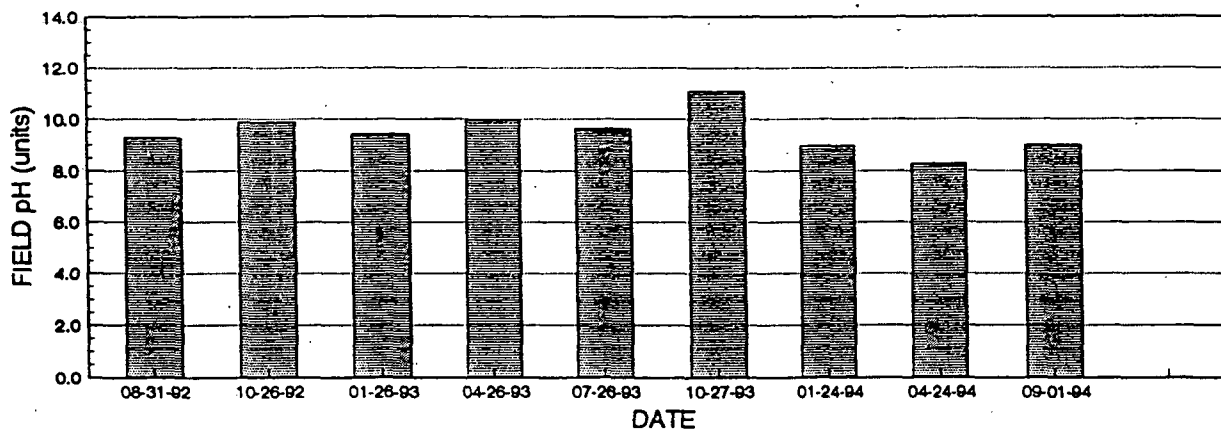
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-24**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE: 






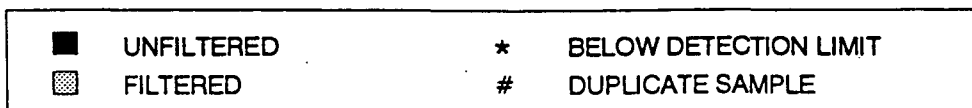
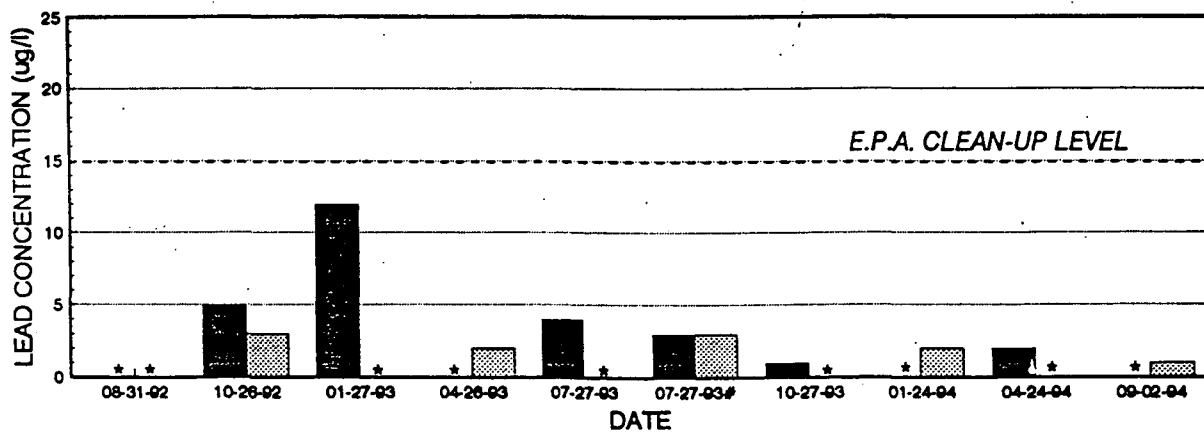
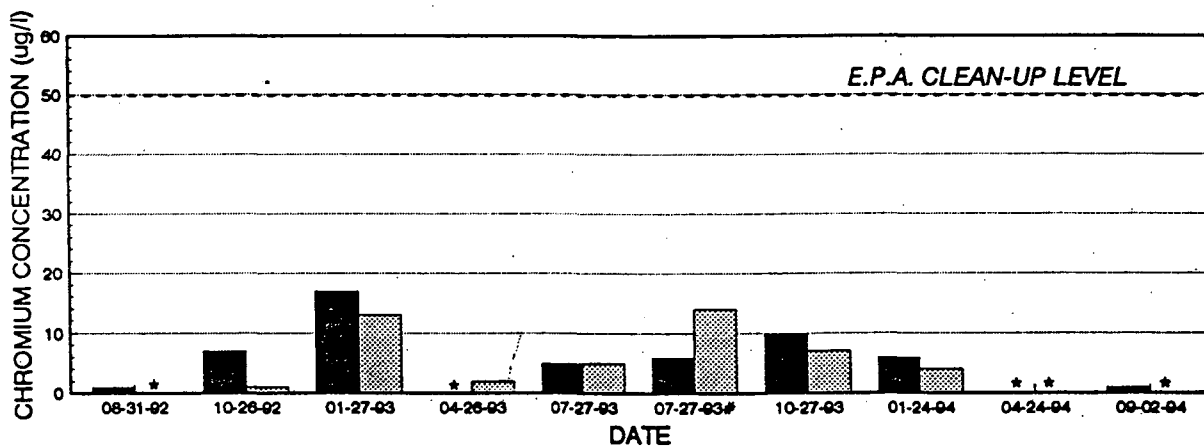
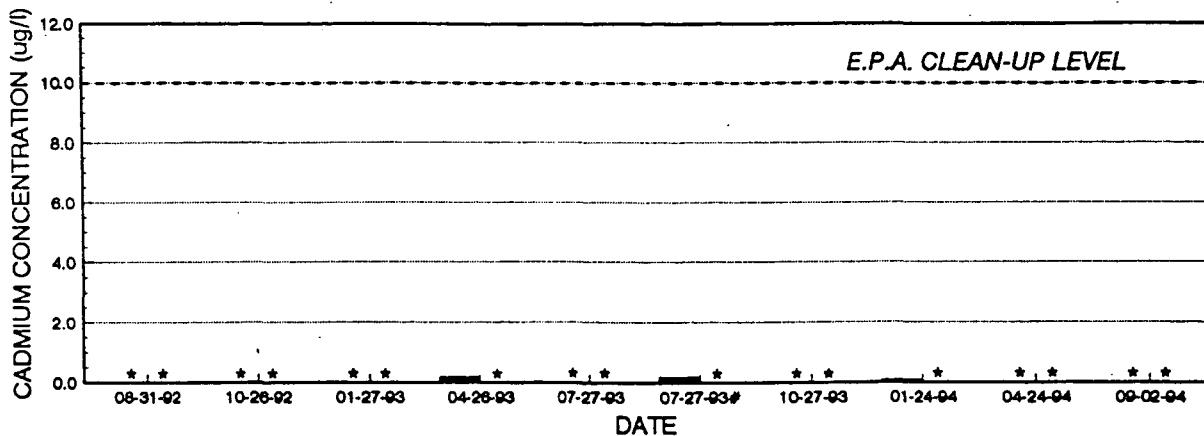
### SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-24

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE: 


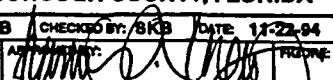


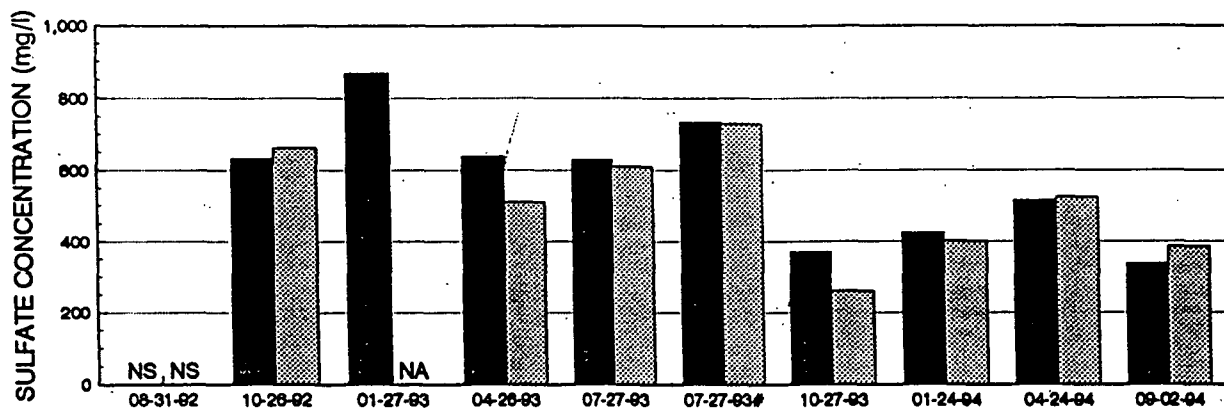
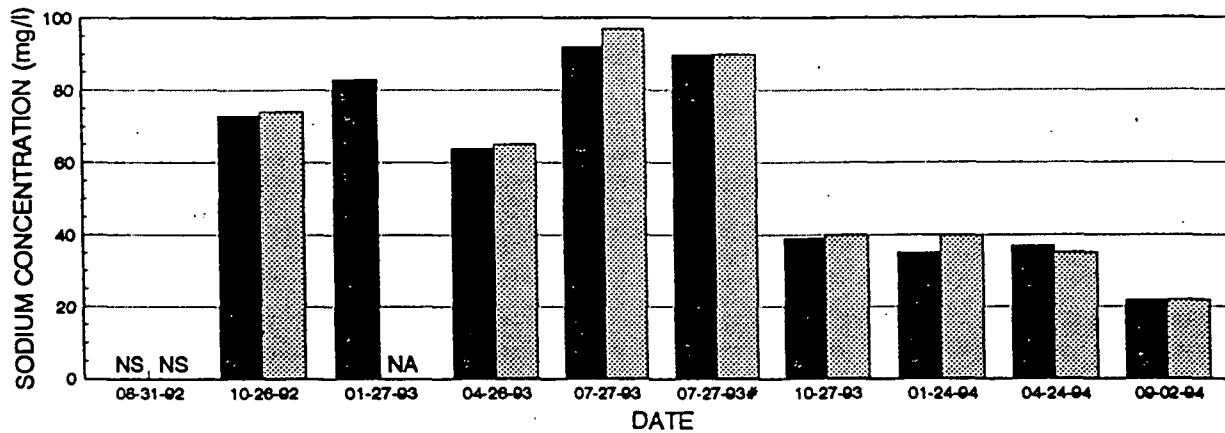
### pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-24

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants			
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>			
DRAWN BY: SKB		CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025		APPROVED BY: 	ROUTE: 





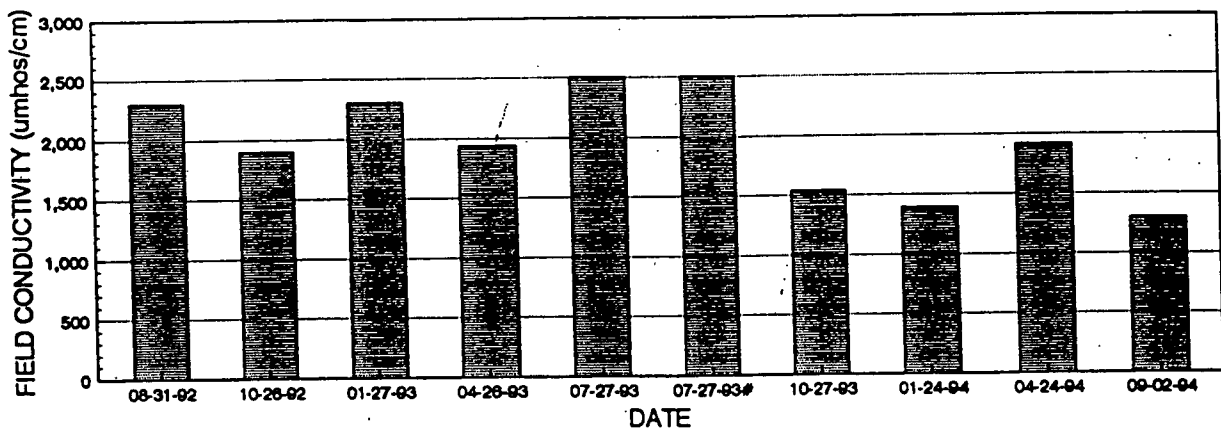
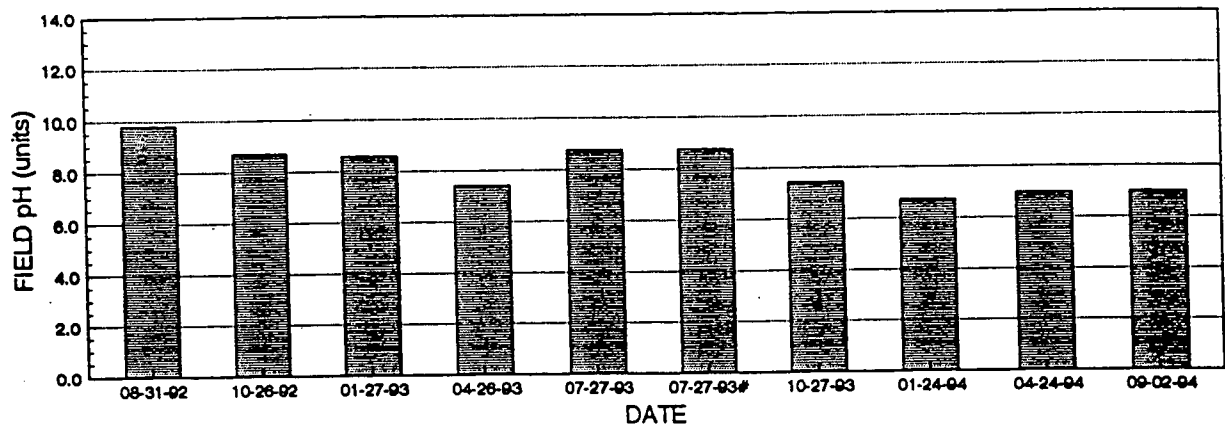
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-25**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	



### SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-25

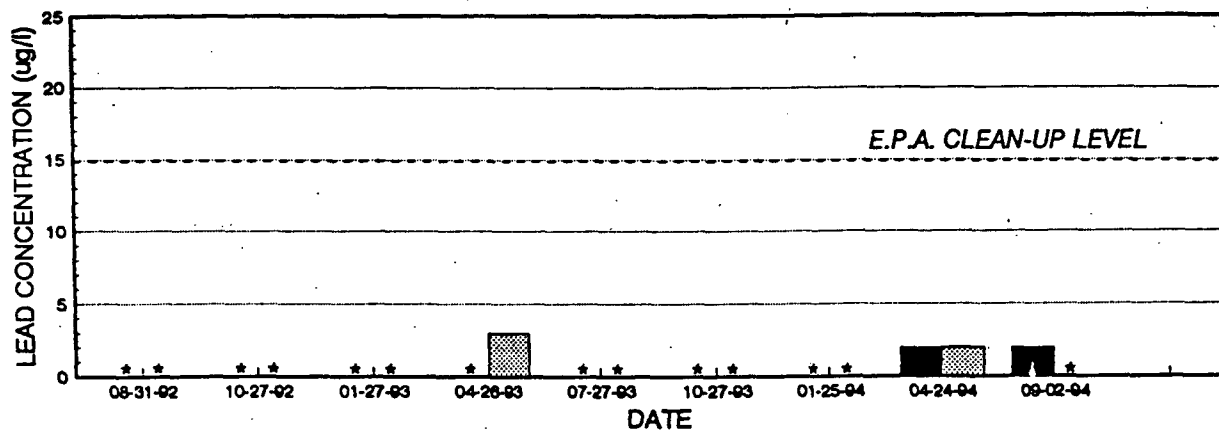
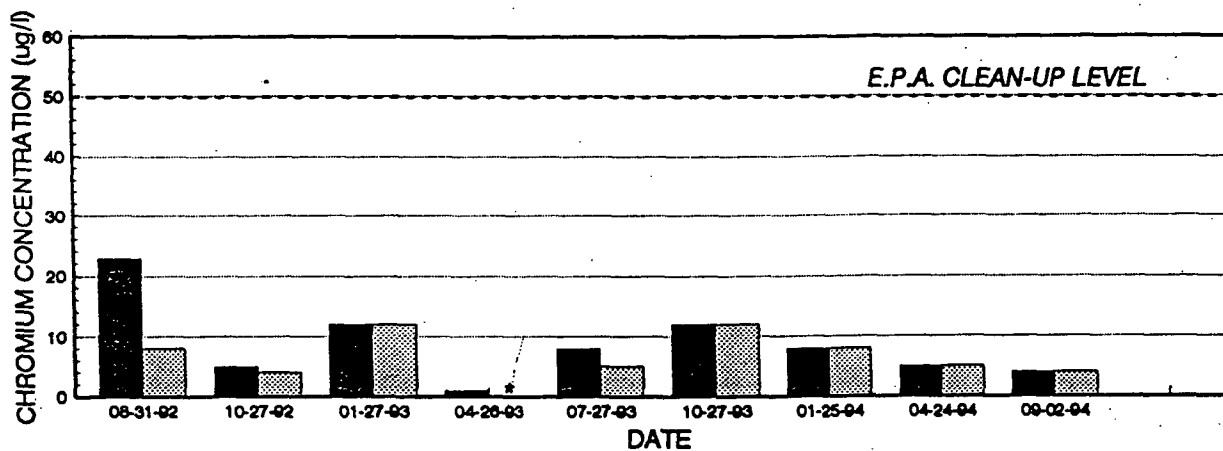
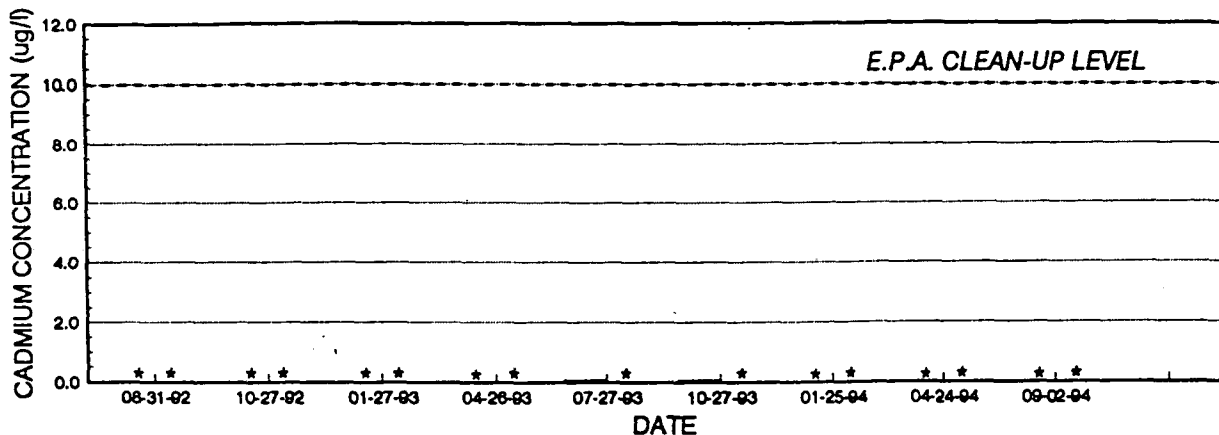
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE



# DUPLICATE SAMPLE

## pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-25



<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER          MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY:	

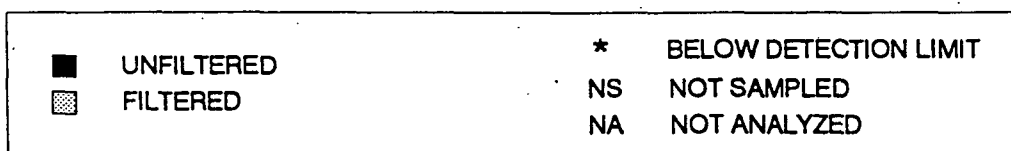
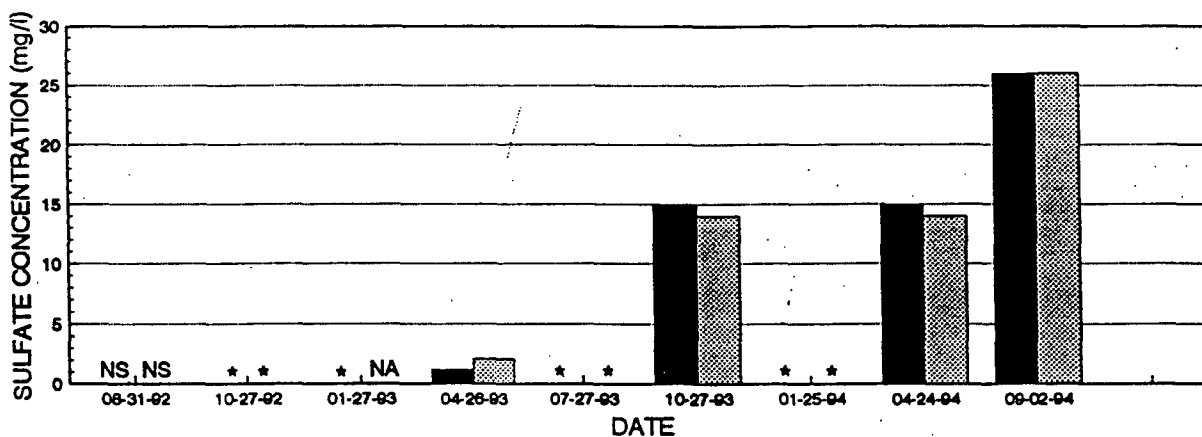
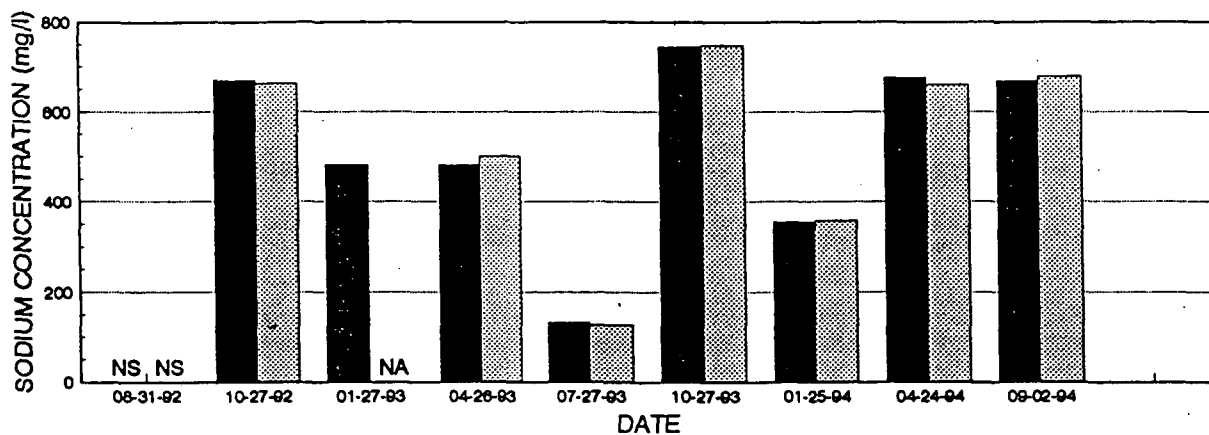


■ UNFILTERED  
 ▨ FILTERED

\* BELOW DETECTION LIMIT

# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-26**

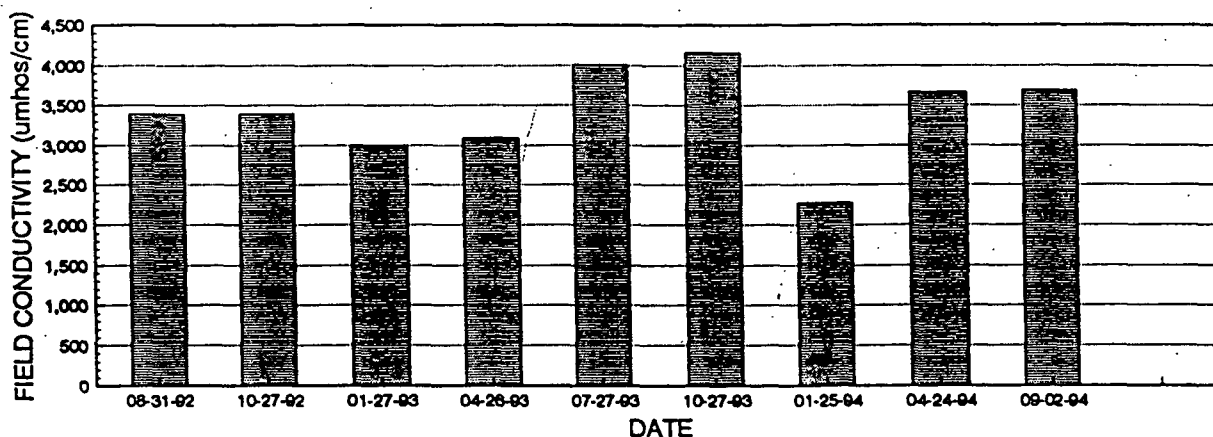
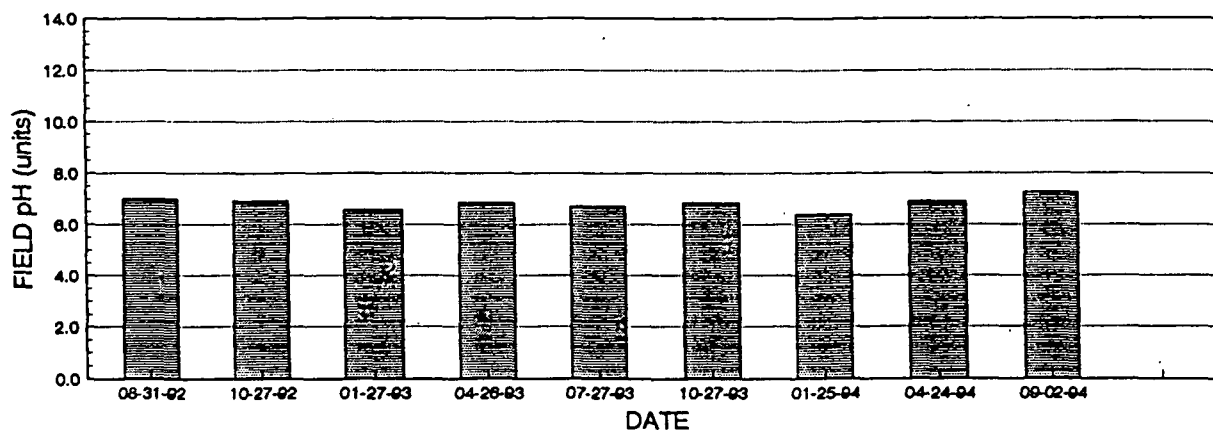
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	




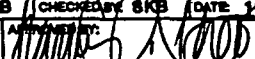

## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-26

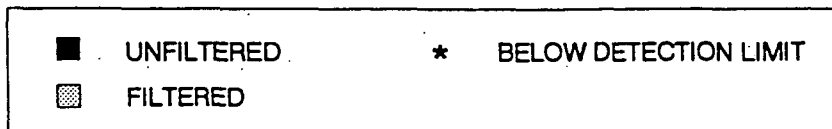
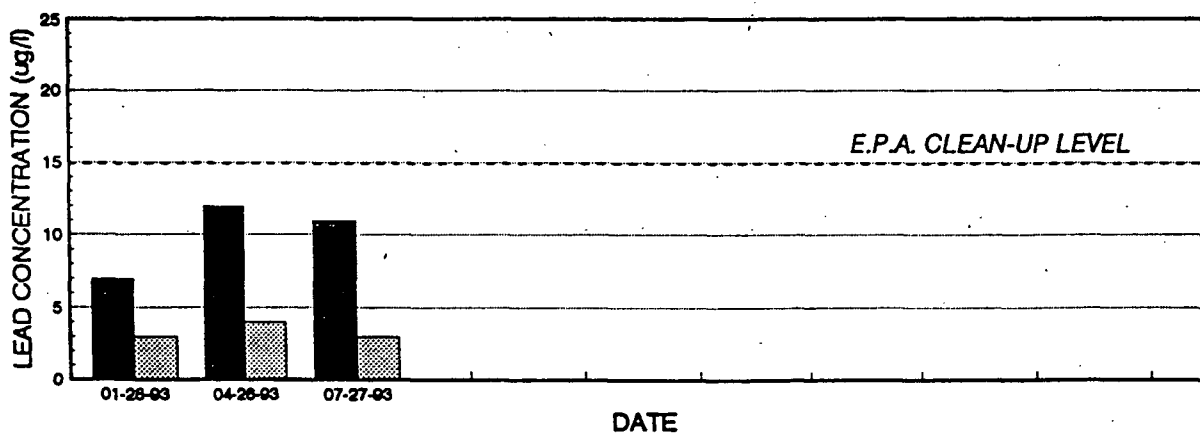
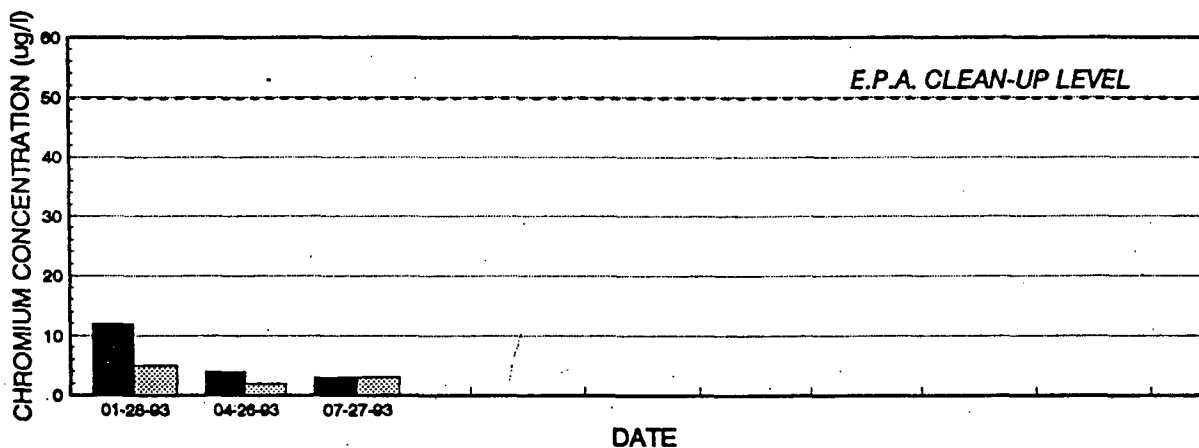
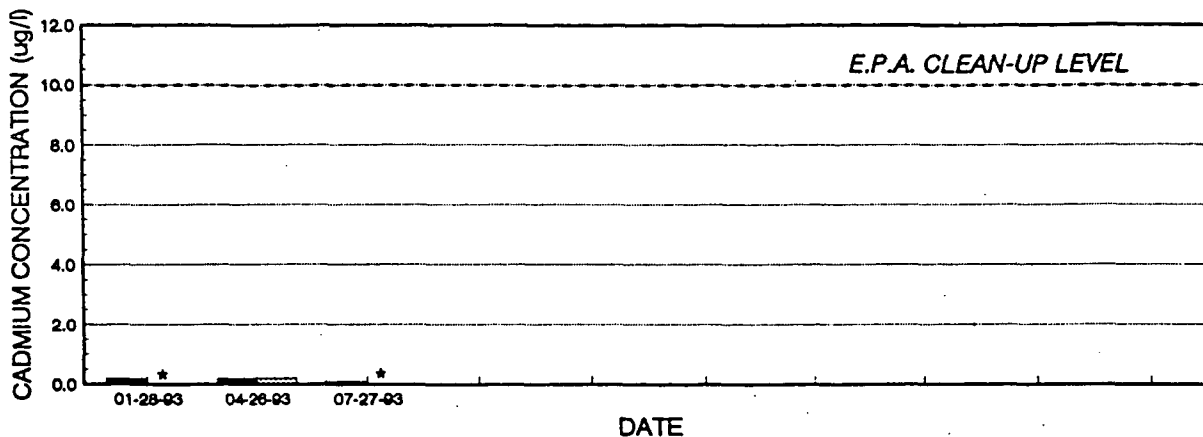
<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY:	






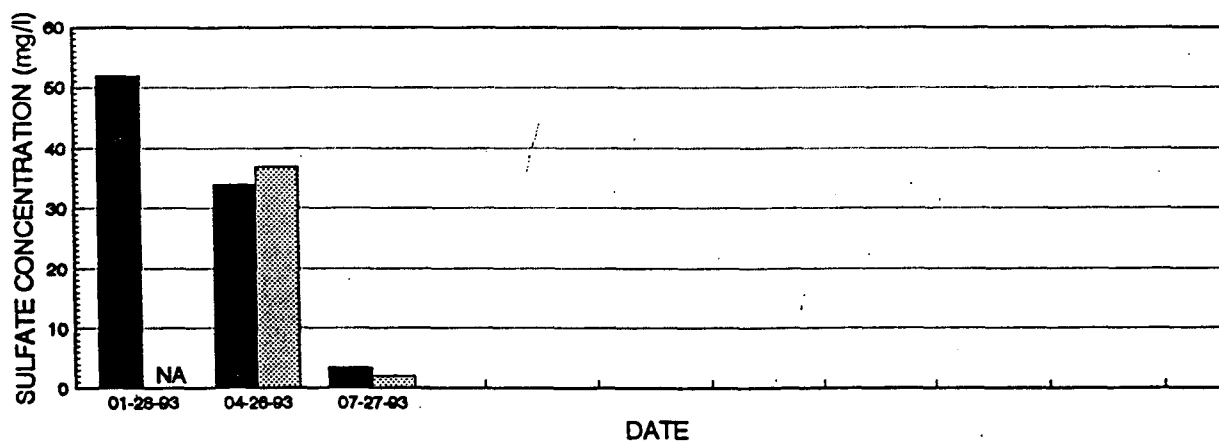
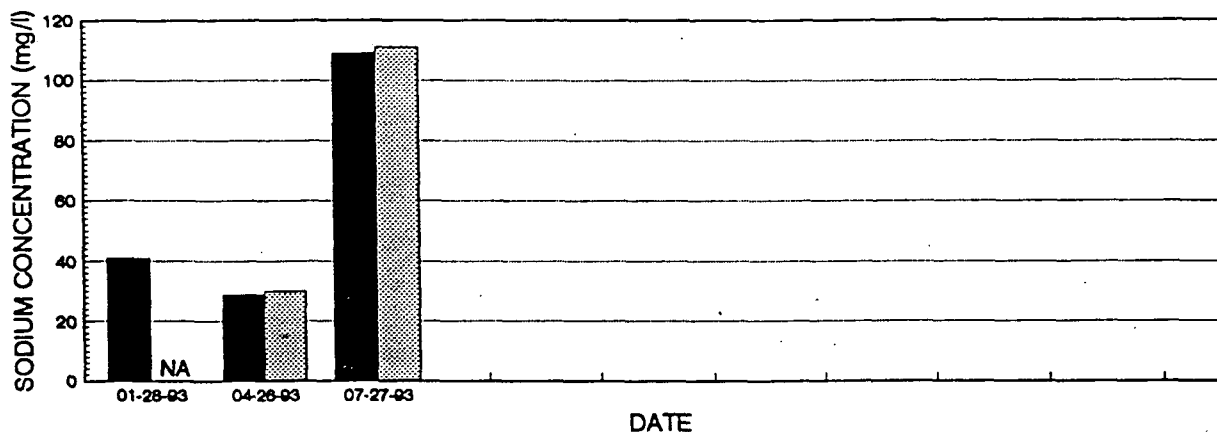
**pH AND CONDUCTIVITY VALUES  
IN OFF-SITE MONITOR WELL MW-26**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	PROJECT: 



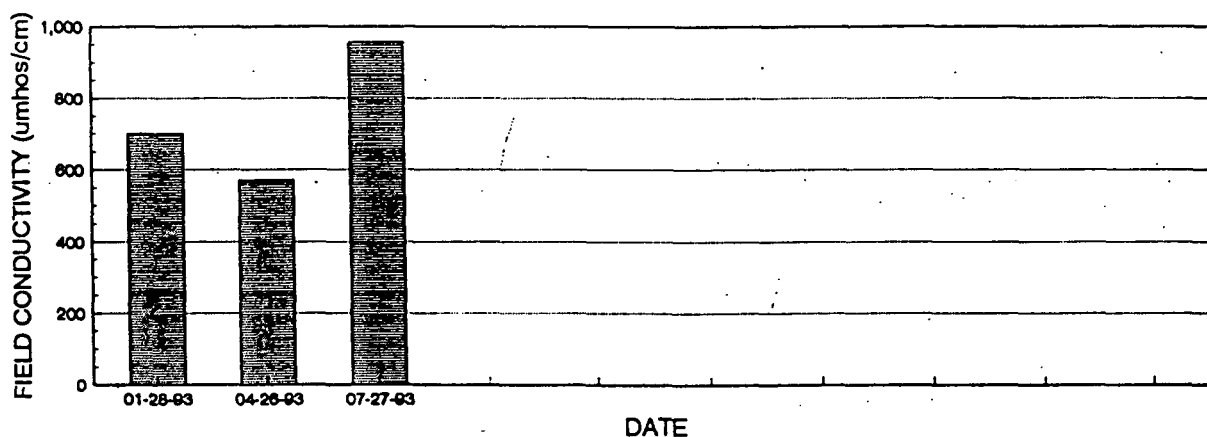
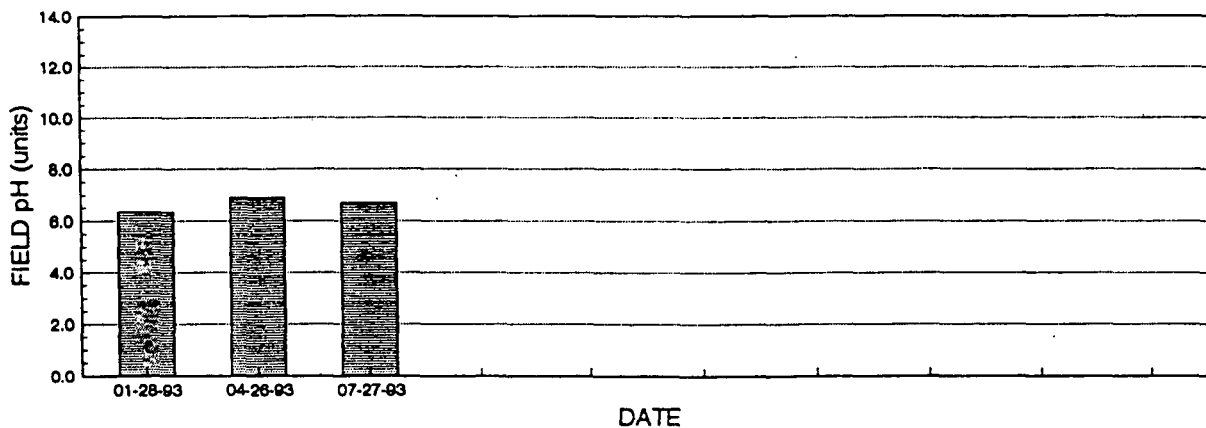
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-28**

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants			
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA</b>			
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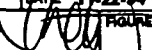


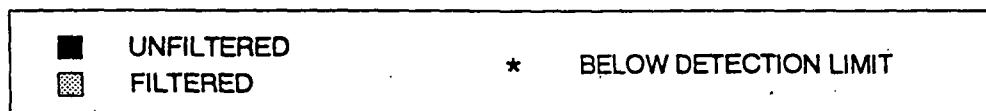
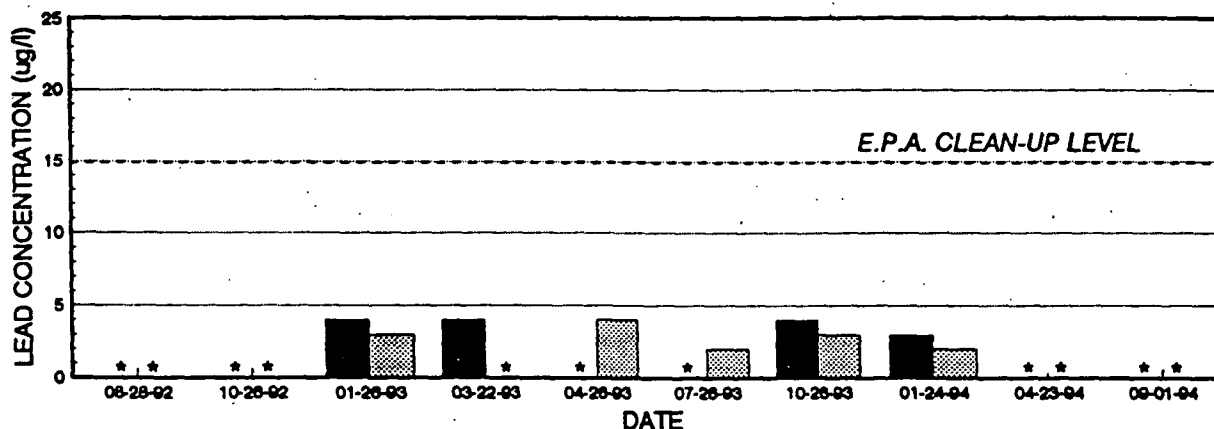
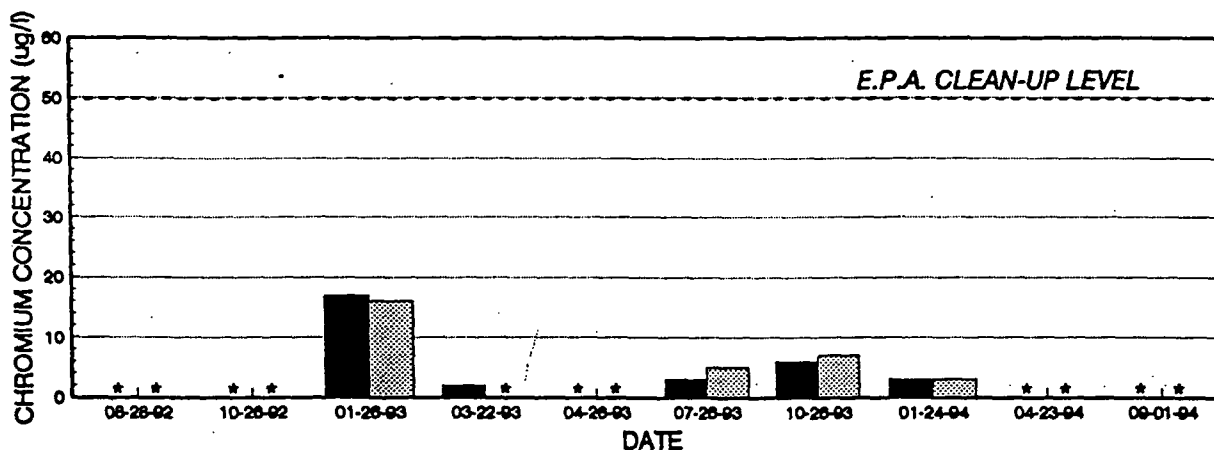
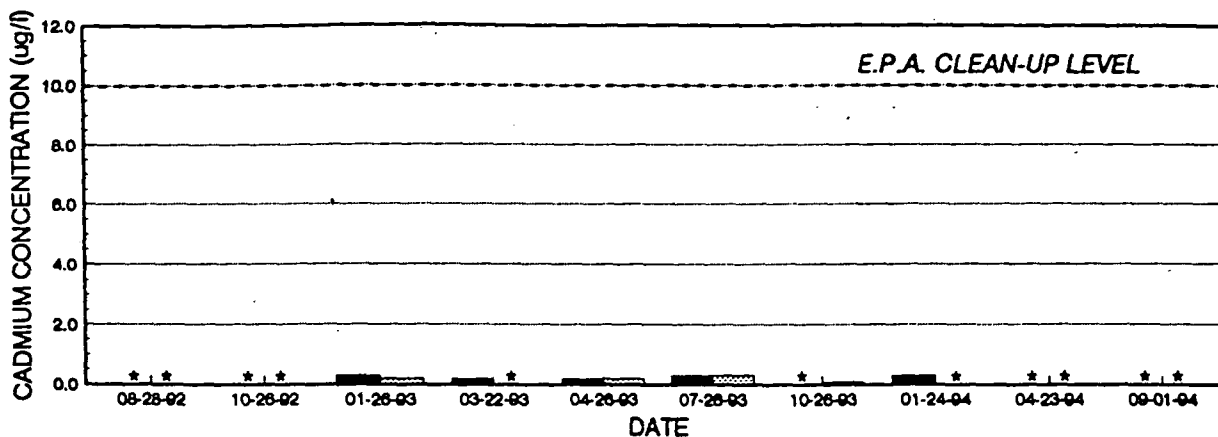
## SODIUM AND SULFATE CONCENTRATIONS IN OFF-SITE MONITOR WELL MW-28

<b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants			
<b>OFF-SITE GROUNDWATER            MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>			
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94	
FILE NO.: 93-025	APPROVED BY:		PHONE:






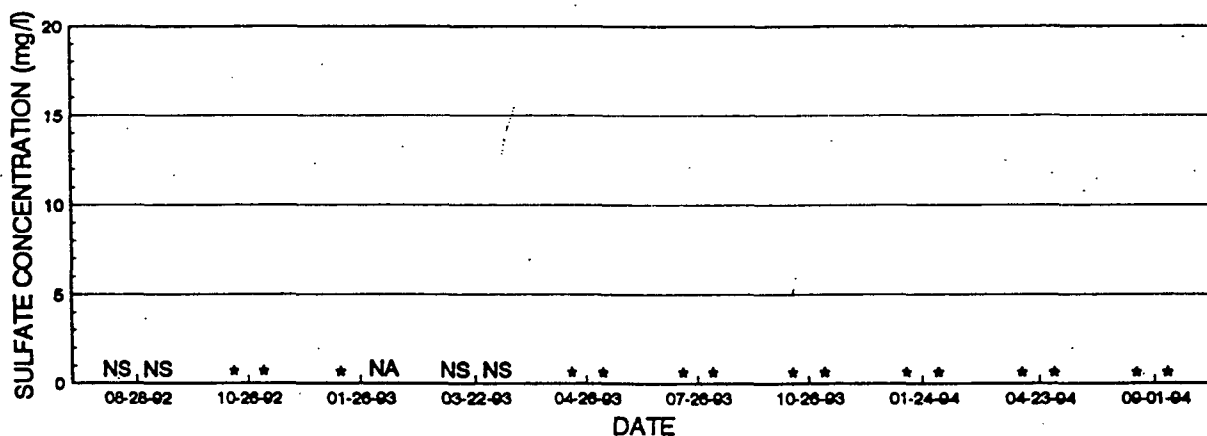
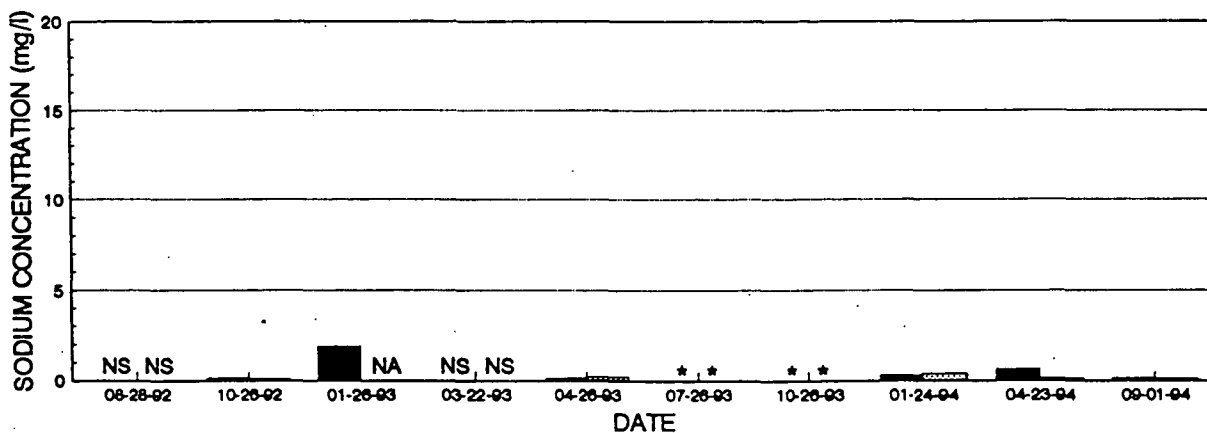
# **pH AND CONDUCTIVITY VALUES IN OFF-SITE MONITOR WELL MW-28**



 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	FIGURE: 




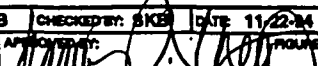
# **CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN EQUIPMENT BLANKS**

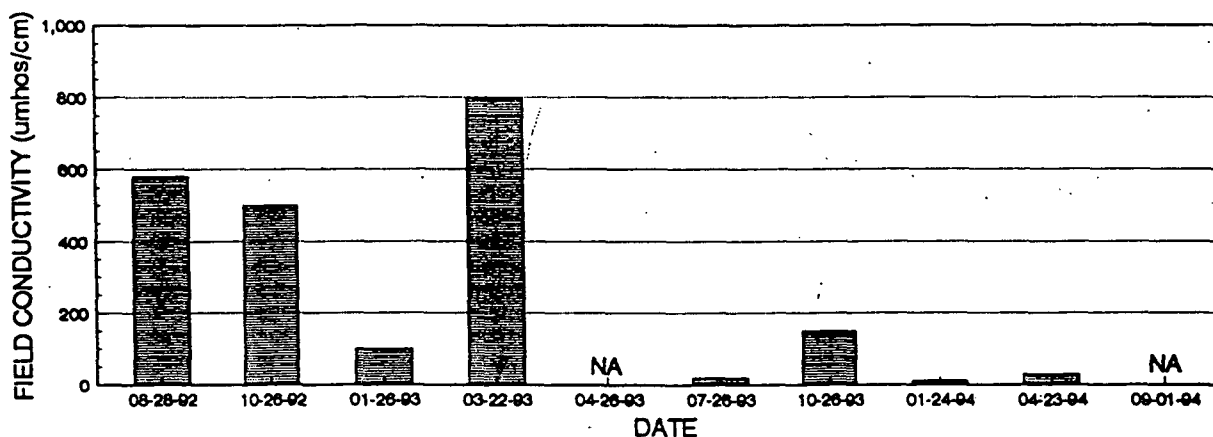
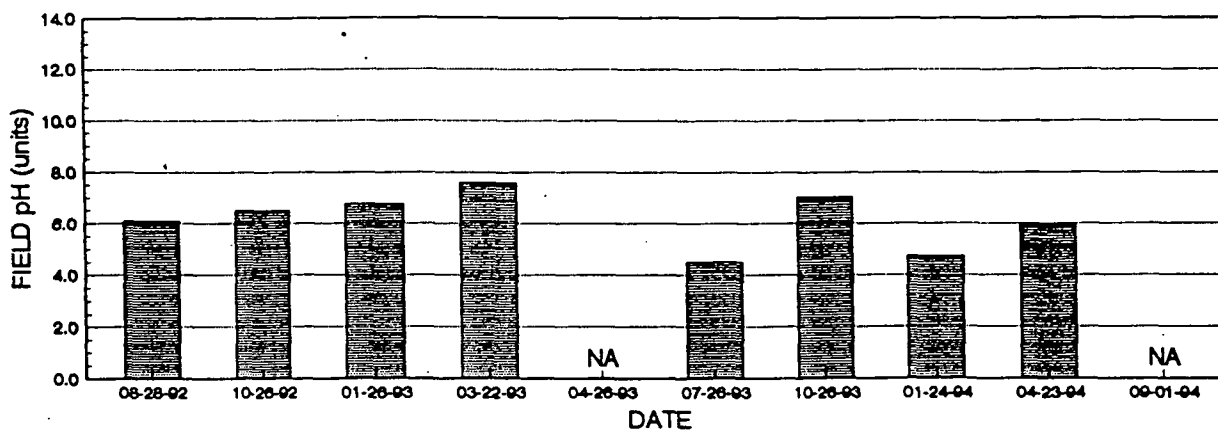
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<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11/22/94
FILE NO.: 93-025	APPROVED BY: 	FOR USE: 



	UNFILTERED	*	BELOW DETECTION LIMIT
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## SODIUM AND SULFATE CONCENTRATIONS IN EQUIPMENT BLANKS

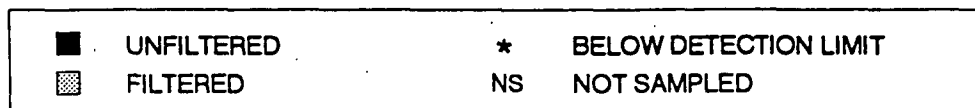
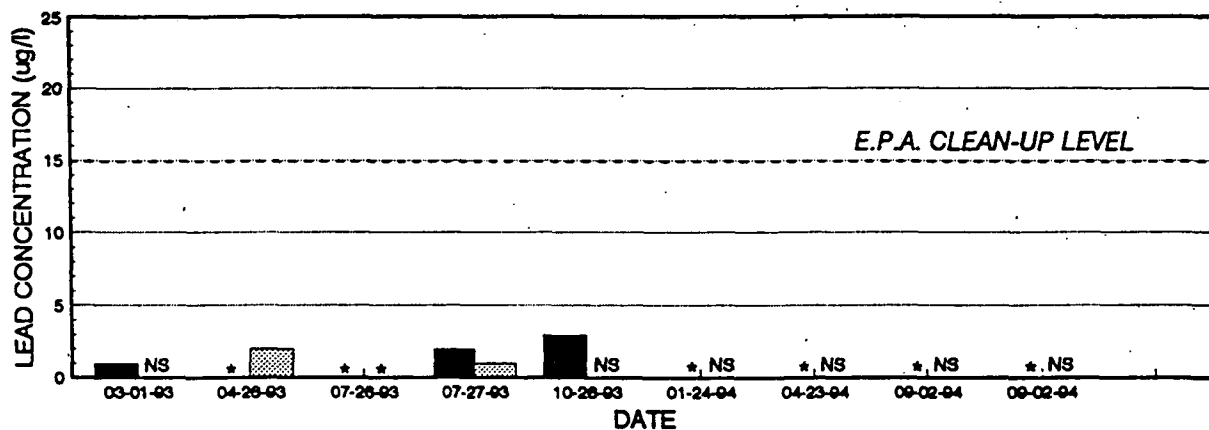
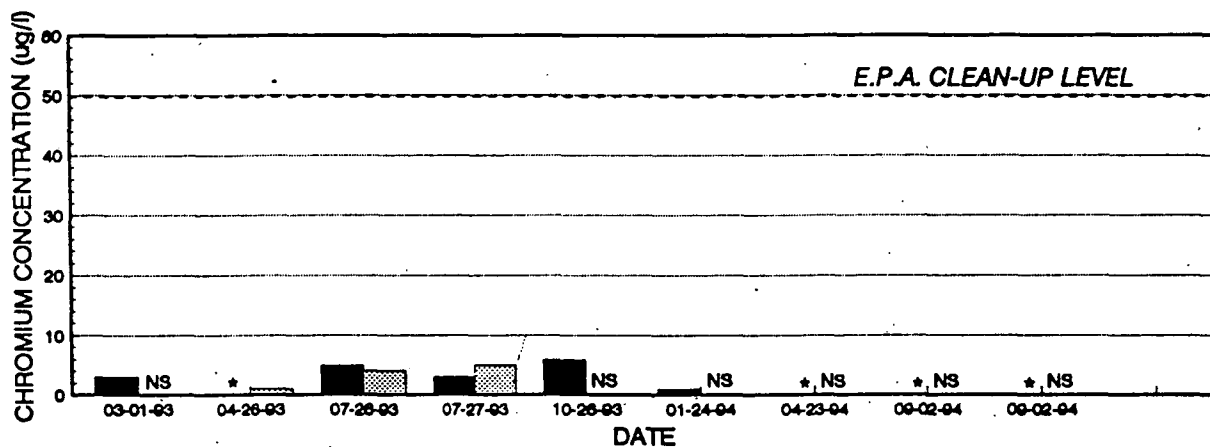
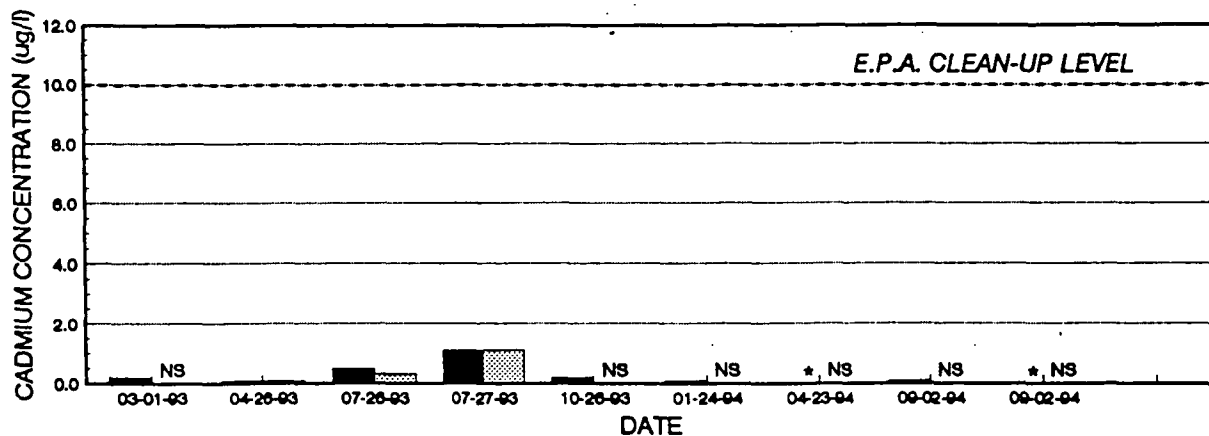
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11/22/04
FILE NO.: 93-025	APPROVED BY: 	




NA NOT ANALYZED

## pH AND CONDUCTIVITY VALUES IN EQUIPMENT BLANKS

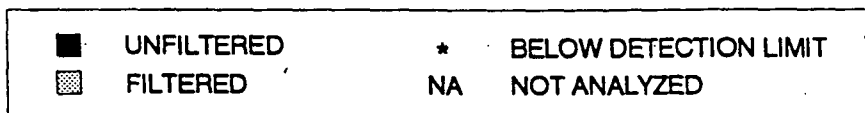
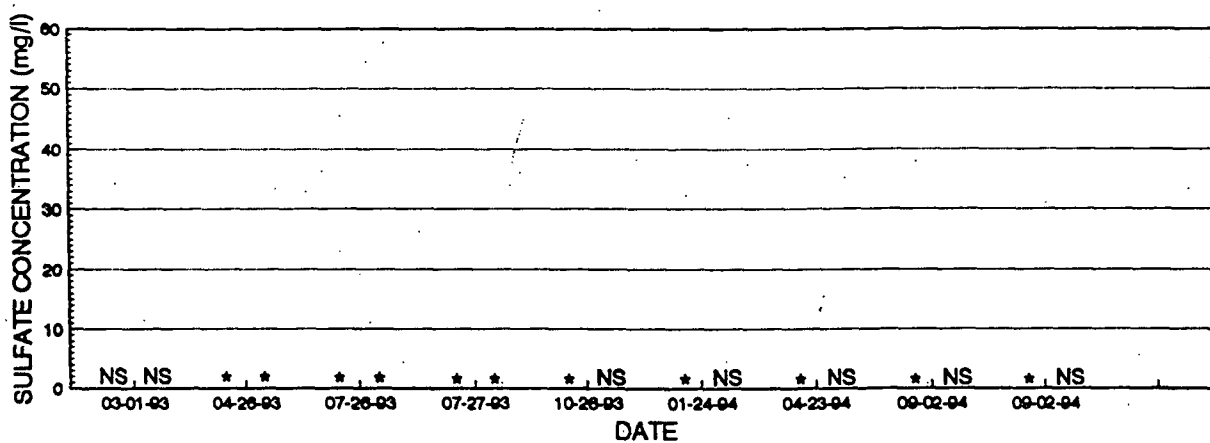
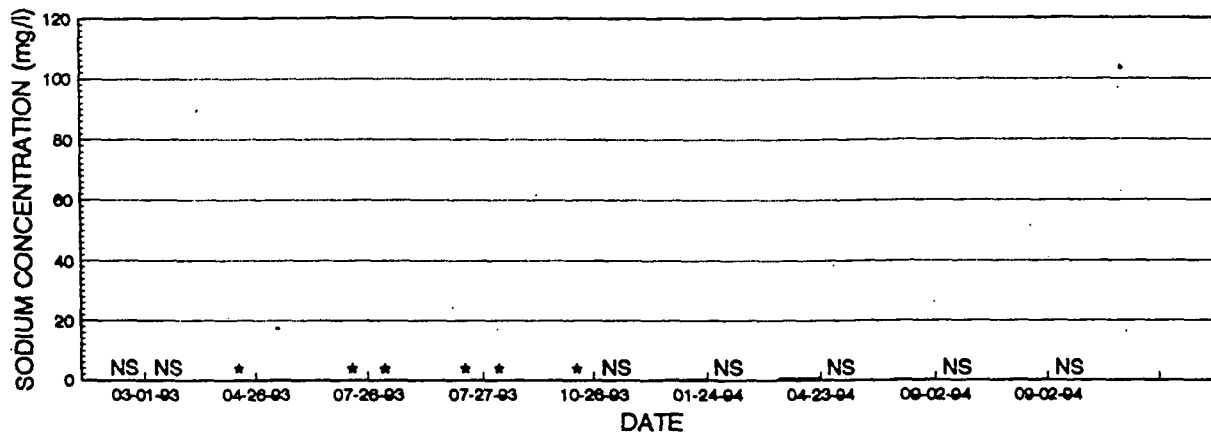
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
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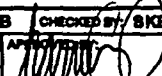
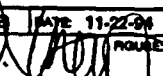
# CADMIUM, CHROMIUM AND LEAD CONCENTRATIONS IN ANALYTE-FREE WATER SAMPLES

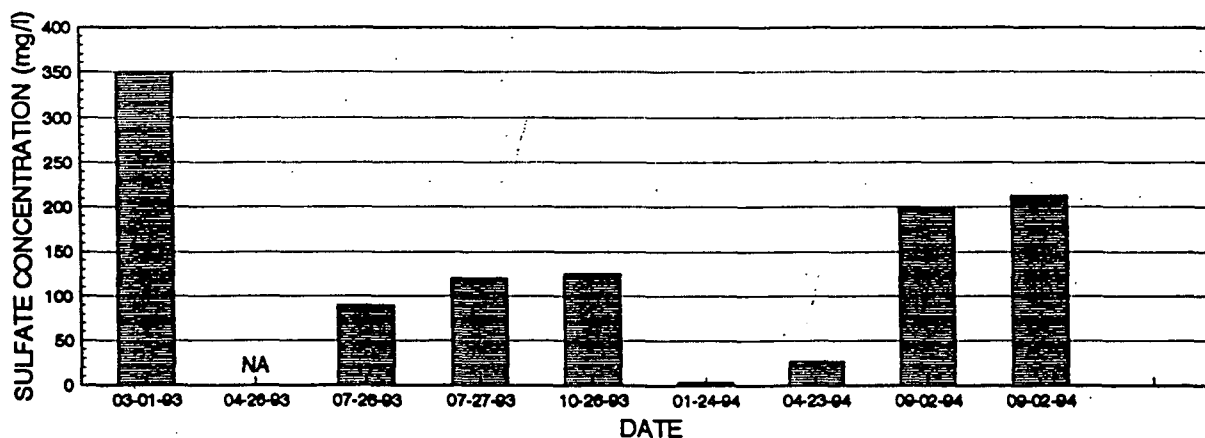
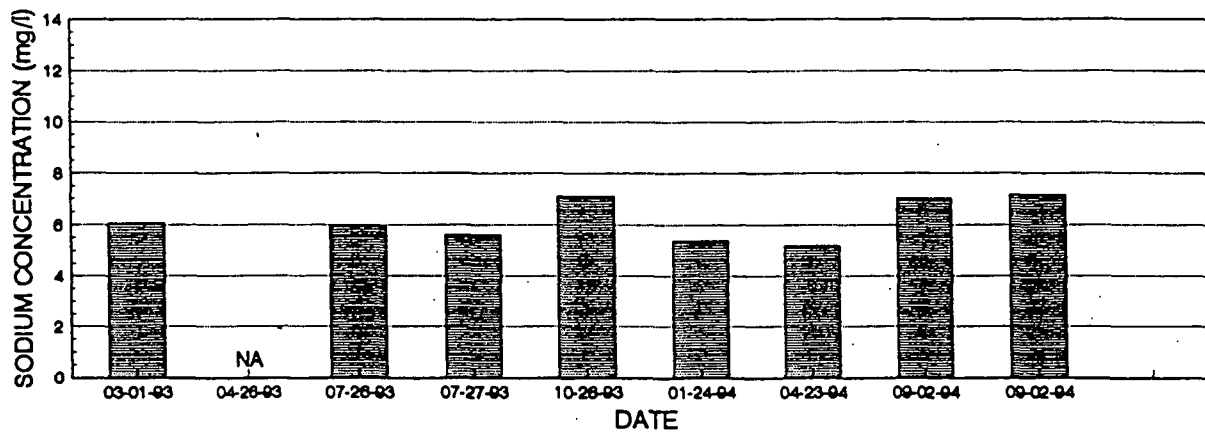
 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants	
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>	
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FILE NO.: 93-025	DATE: 11-22-94






## SODIUM AND SULFATE CONCENTRATIONS IN ANALYTE-FREE WATER SAMPLES

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
FILE NO.: 93-025	APPROVED BY: 	PROJECT: 



NA NOT ANALYZED

### pH AND CONDUCTIVITY VALUES IN ANALYTE-FREE WATER SAMPLES

 <b>Ardaman &amp; Associates, Inc.</b> Geotechnical, Environmental and Materials Consultants		
<b>OFF-SITE GROUNDWATER MONITORING PROGRAM</b> <b>62nd STREET SUPERFUND SITE, TAMPA</b> <b>HILLSBOROUGH COUNTY, FLORIDA</b>		
DRAWN BY: SKB	CHECKED BY: SKB	DATE: 11-22-94
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